National Institute for Health and Care Excellence

Final

Looked-After Children and Young People

[F] Interventions to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers

NICE guideline NG205

Evidence reviews underpinning recommendations 1.2.18, 1.2.26 to 1.2.27, 1.5.2, 1.5.10, 1.5.21, and 1.5.34

October 2021

Final

These evidence reviews were developed by NICE Guideline Updates Team

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Interventions to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers

Review question

3.2a: What is the effectiveness of interventions and approaches to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers?

3.2b: Are interventions to promote physical, mental, and emotional health and wellbeing acceptable and accessible to looked-after children and young people and their care providers? What are the barriers to, and facilitators for the effectiveness of these interventions?

Introduction

This review will consider interventions to support promote physical, mental, and emotional health and wellbeing in children and young people who are looked after and care leavers. Looked-after children and young people have poorer outcomes in many areas, including mental and physical health. For example, the rate of mental health disorders in the general population aged 5 to 15 is 10%. For those who are looked after it is 45%, and 72% for those in residential care. In 2017, 56.3% of looked-after children had a special educational need, compared with 45.9% of children in need and 14.4% of all children. Looked-after children are more likely to become a single parent and are at greater risk of teenage pregnancy and poor pregnancy-related outcomes. These include smoking during pregnancy, having a low birth weight baby, and depression. Local authorities have a duty to support looked-after children and young people. This includes providing support to improve mental and emotional health and wellbeing and producing individual care plans covering any identified health requirements.

Local authorities may use interventions to promote physical, mental, and emotional health and wellbeing in looked after children and young people, however there is uncertainty about which specific interventions work. The (2010) NICE guideline for looked-after children and young people did not include recommendations on specific interventions to support promote physical, mental, and emotional health and wellbeing. A NICE surveillance review found new evidence that indicated recommendations on interventions to promote physical, mental, and emotional health and wellbeing in looked-after children might be needed.

Summary of protocol

PICO table

Table 1: PICO table for review on interventions to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers

Population	Looked after children and young people and care leavers (wherever they are looked after) from birth to age 25. Also including: • Children and young people who are looked after on a planned, temporary basis for short breaks or respite care purposes, only if the Children Act 1989 (section 20) applies and the child or young person is temporarily classed as looked after. • Children and young people living at home with birth parents but under a full or interim local authority care order and are subject to looked-after children and young people processes and statutory duties. • Children and young people in a prospective adoptive placement. • Looked-after children and young people on remand, detained in secure youth custody and those serving community orders.
Intervention	Health and social care interventions and approaches to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers. Example interventions and approaches of interest include: • Interventions for delivering health- and wellbeing- related advice, education, signposting, and information for LACYP • Targeted and specialist services for LACYP and care leavers (for example, LACYP-specific services for health and wellbeing promotion, sex and relationship counselling, mental health, dental health, and nutritional health) • Interventions to support positive relationships (if health and wellbeing outcomes are reported) • Interventions to support placement stability (if health and wellbeing outcomes are reported) • Structured training for carers to support the physical and mental health and wellbeing of LACYP • Group programmes and evidence-based parenting programmes (e.g. Solihull approach, Kim Goldings therapeutic parenting)
Comparator	Comparator could include standard care, waiting list, or another approach to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers.
Outcomes	– Mental wellbeing – Emotional wellbeing – Quality of life

	– Physical health outcomes (e.g. improvements in sexual health, nutrition, dentition, or improved health behaviours, or risk-taking behaviours)

SPIDER table

Table 2: SPIDER table for review on interventions to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers

Sample	Looked after children and young people and care leavers (wherever they are looked after) from birth to age 25. Also including: • Children and young people who are looked after on a planned, temporary basis for short breaks or respite care purposes, only if the Children Act 1989 (section 20) applies and the child or young person is temporarily classed as looked after. • Children and young people living at home with birth parents but under a full or interim local authority care order and are subject to looked-after children and young people processes and statutory duties. • Children and young people in a prospective adoptive placement. • Looked-after children and young people on remand, detained in secure youth custody and those serving community orders
Phenomenon of Interest	Health and social care interventions and approaches to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers.
Design	Including focus groups and interview-based studies (mixed-methods studies will also be included provided they contain relevant qualitative data).
Evaluation	Qualitative evidence related to interventions to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers, will be examined. Evidence should relate to the views of looked after children, their carers, and providers, who would deliver eligible interventions, on: • The accessibility and acceptability of the intervention, including information about the source and type of intervention used. • Barriers to and facilitators for intervention effectiveness
Research type	Qualitative and mixed methods
Search date	1990
Exclusion criteria	• Mixed-methods studies reporting qualitative data that cannot be distinguished from quantitative data. • Countries outside of the UK (unless evidence concerns an intervention which has been shown to be effective in reviewed quantitative evidence) • Studies older than the year 2010 (unless not enough evidence, then progress to include studies between 1990 to current)

Methods and process

This evidence review was developed using the methods and process described in Developing NICE guidelines: the manual. Further methods specific to this review question are described in the review protocol in Appendix A.

Declarations of interest were recorded according to NICE's 2018 conflicts of interest policy.

Effectiveness evidence

Included studies

After removing duplicates, a total of 36,866 studies were identified from the search. After screening these references based on their titles and abstracts, 401 studies were obtained and reviewed against the inclusion criteria as described in the review protocol for interventions to support placement stability (Appendix A). Overall, 69 studies, reporting on 62 original studies, were included. 332 references were excluded because they did not meet the eligibility criteria.

The evidence included 44 original randomised controlled trials and 18 qualitative studies. See the table below for a summary of included studies. For the full evidence tables, see Appendix D. The full references of included studies are given in the reference section of this chapter. These articles considered 44 different interventions to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers.

See Appendix J for a list of references for excluded studies, with reasons for exclusion.

Summary of studies included in the evidence

Quantitative Evidence

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
Alderson 2020 (UK-RCT)	Young people in care at risk of substance misuse (age 12 to 20 years)	Motivational Enhancement Therapy (MET) And Social Behaviour and Network Therapy (SBNT)	Care as Usual (CAU)	MET = 17 SBNT = 23 CAU = 20	Youth-rated health at 12 months Youth-reported mental health and wellbeing at 12 months Youth-reported health-related quality of life at 12 months Youth-reported alcohol use score at 12 months Youth-reported substance use score at 12 months
Akin 2015 (USA - RCT)	Foster care, children identified as having serious emotional disturbance (aged 3 to 16 years)	Parent Management Training-Oregon (PMTO)	CAU	PMTO: 78 CAU: 43	Caregiver-reported social-emotional functioning at postintervention/6-months/12-months
Akin 2018/2019 (USA - RCT)	Foster care, children identified as having serious emotional disturbance (aged 3 to 16 years)	Parent Management Training-Oregon (PMTO)	CAU	PMTO = 461 CAU = 457	Caregiver-reported social-emotional functioning at 6-months/12-months
Bergstrom 2016 (Sweden – RCT)	In out of home care with behavioural needs (conduct disorders) (aged 3 to 16 years)	Multidimensional Treatment Foster Care (MTFC)	CAU	MTFC = 19 CAU = 27	Substance abuse over 1 year/3 year follow up

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
Briskman 2012 (UK – RCT)	Children in care/special guardianship but not in kinship care (aged between 2 and 12)	Fostering Changes Programme (FC)	Wait list control (WL)	FC = 51 WL = 38	Total problems score at three months Strengths and Difficulties Questionnaire (SDQ) Emotional problems score at three months postbaseline: assessed using the SDQ
Bywater 2011 (UK- RCT)	Child in foster care (mean age 10 ± 4.48 years)	Incredible Years (IY)	WL	IY = 29 WL = 17	Child behavioural and emotional problems at 6-month follow up (Eyberg Child Behavior Inventory) Total strengths and difficulties score at 6-month follow up: strengths and difficulties questionnaire
Cox 2017 (Australia – RCT)	Children in residential out of home care (no age restriction)	The HEAL programme	WL	HEAL = 58 WL = 12	Number of serves on the previous day of sugary drinks at 6 months/12 months follow up. Number of serves on the previous day of health foods at 6 months/12 months follow up Number of serves on the previous day of unhealthy foods at 6 months/12 months follow up Number of minutes of screen time in in 1 day at 6 months/12 months follow up Number of active days in a week at 6 months/12 months follow up BMI z-score at 6 months/12 months follow up Symptoms of depression mean score at 6 months follow up/12 months follow up: Depression Anxiety Stress Scale

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
					Symptoms of anxiety mean score at 6 months/12 months follow up: Depression Anxiety Stress Scale Symptoms of stress mean score at 6 months/12 months follow up: Depression Anxiety Stress Scale
Conn 2018 (USA – RCT)	foster care (aged 2-7 years)	Incredible Years (IY)	WL	IY = 16 WL = 17	Number of children in need of mental health care provision Number of children in need of mental health treatment
Dominick 2014 (USA -	In residential home (age 11 – 18 years)	ENRICH intervention	WL	ENRICH = 115 WL = 146	Children's physical activity Number achieving two or more 30-minute blocks of moderate-to-vigorous physical activity
Dozier 2006 (USA – RCT)	Foster care (infants and toddlers)	ABC	DEF	ABC = 30 DEF = 30	Salivary mean AM cortisol Salivary mean PM cortisol Overall mean difference between groups for salivary cortisol
Dozier 2008 (USA – RCT)	Foster care (infants)	ABC	DEF	ABC = 46 DEF = 47	Initial salivary cortisol levels (pre-strange situation) Salivary cortisol following strange situation
Farmer 2010 (USA – RCT)	Youth who live in treatment foster care homes (mean age 12.9 ± 3.8 years)	Treatment Foster Care, Together Facing the Challenge (TFTC)	Treatment Foster Care (TFC)	TFTC = 137 TFC = 110	The SDQ z score of the difference of means between intervention group and comparison group at 6 months/12 months Behavioural and Emotional Rating z score of the mean differences between intervention and comparison group at 6 months/12 months

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
Fisher 2007 (USA – RCT)	Children in foster care (3-5 years old)	Multidimensional Treatment Foster Care for Preschoolers (MTFC-P)	Routine Foster Care (RFC)	MTFC-P = 57 RFC = 60	AM salivary cortisol at 12 months follow up PM salivary cortisol over 12 months Change in AM-PM salivary cortisol over 12 months follow
Fisher 2011 (USA – RCT)	Children in foster care (3-5 years old)	Multidimensional Treatment Foster Care for Preschoolers (MTFC-P)	Routine Foster Care (RFC)	MTFC-P = 36 RFC = 35	Relationship between being in the intervention group and postplacement morning to evening cortisol decrease
Geenen 2012 (USA – RCT)	Youth in foster care (age 14-17)	Take Charge	CAU	TC = 60 CAU = 60	Self-determination score at postintervention/9-months Youth self-report anxiety mean score at postintervention/9-months follow up Carer reported child anxiety-depressed mean score at postintervention/9-months Carer reported child withdrawn-depressed mean score at postintervention/9-months Carer reported child somatic complaints mean score at postintervention/9-months
Geenen 2015 (USA – RCT)	Youth in foster care with mental health problems (age 16-17)	Better Futures	CAU	BF = 36 CAU = 31	Self-determination score following intervention at postintervention/6-months Career decision self-efficacy scale post-intervention/6-months follow up Quality of life questionnaire post-intervention/6-months Hopelessness score at postintervention /6-months Mental health recovery score at postintervention /6-months

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
Graham 2012 (USA – RCT)	Children in foster care (age 3-6 years)	Multidimensional Treatment Foster Care for preschoolers	RFC	MTFC-P = 9 RFC = 7	Mean saliva cortisol 1 week before the start of school: morning/afternoon/ evening Mean salivary cortisol on the 1st day of school: morning/afternoon/ evening Mean salivary cortisol on the 5th day of school: morning/afternoon/ evening
Graham 2018 (USA – RCT)	Nonkinship or kinship foster care (age 4-5)	Kids In Transition to School (KITS) programme	RFC	KITS = 102 RFC = 90	Salivary cortisol mean difference from days prior to intervention and the first day of school
Green 2014/Sinclair 2016 (UK – RCT)	Looked after young people on a placement at risk of breakdown and complex emotional or behavioural difficulties (10 – 17 years)	MTFC for adolescents	Care as Usual	MTFC = 20 CAU = 14	Health of the Nation Outcome Scales for Children and Adolescents mean score at 12 months Children's Global Assessment Scale mean score at 12 month follow up
Greeson 2017 (USA – RCT)	Presently in out-of-home care (aged 18-20.5 years)	Natural mentoring intervention	Services as Usual (SAU)	Natural mentoring = 10 SAU = 7	Mindfulness score postintervention Emotional regulation score postintervention Mental health score postintervention Grit score postintervention Resilience score postintervention Perceived Future Opportunities scale, postintervention Strengths and Difficulties Questionnaire, postintervention
Haggerty 2016 (USA – RCT)	In foster care (aged 11 to 15 years)	Staying Connected with Your Teen (SCT)	WL	SCT = 32 WL = 28	Teen report for communication about substance use at 3 months follow up Caregiver report for communication about substance use at 3 months follow up

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
					Teen report for communication about sex at 3 months follow up Caregiver report for communication about sex at 3 months follow up Teen-reported alcohol refusal score at 3 months follow up
Haight 2010 (USA – RCT)	In foster care and parents misused methamphetamines (aged 7 to 15 years old)	Life Story Intervention (LS)	WL	LS = 8 WL = 7	PTSD/dissociation mean score at postintervention
Kerr 2009/Harold 2013/Kerr 2014/Poulton 2014 (USA – RCT)	Youths mandated to out-of-home care due to chronic delinquency (13-17 years)	MTFC	Group Care	MTFC = 81 GC = 85	Association between being in the MTFC group and pregnancy at 24 months follow up Association between being in the intervention group and reduction in depression symptoms over 24 month follow up Adjusted odds of clinical depression from being in the intervention group over 24 months follow up Association between being in the intervention group and Psychotic Symptoms (BSI) over 24 months follow up Association between being in the intervention group and DISC-IV psychotic symptoms at 24 months follow up Association between being in the intervention group and change in depressive symptoms (CES-D) over 9 years follow up

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
					Association between being in the intervention group and change in occurrence of suicidal ideation over 9 years follow up Association between being in the intervention group and postbaseline suicide attempts over 9 years follow up
Jee 2015 (USA – RCT)	Youth in foster care (14-21 years)	Mindfulness-based stress reduction	CAU	Mindfulness = 21 CAU = 21	Self-reported mental health problems score at postintervention Self-report acceptance and mindfulness score at postintervention Self-reported stress and anxiety mean score at postintervention (the State-Trait Anxiety Inventory for Children
Job 2020 (Germany – RCT)	Young children with a history of maltreatment or neglect in foster families (age 2 – 7 years)	Taking Care Triple P (TCTP) (parent group training)	CAU	TCTP = 40 CAU = 34	Parent-reported child mental health score at 12 months Parent-reported anxiety score at 12 months
Kim 2011/Smith 2011 (USA – RCT)	Girls in final year of elementary school in relative or non-relative foster care	Middle School Success intervention (MSS)	CAU	MSS = 48 CAU = 52	Substance use score at 3 years follow up Tobacco use score at 3 years follow up Alcohol use score at 3 years follow up Marijuana use score at 3 years follow up
Messer 2018 (USA – RCT)	Children in foster care (age 3 to 12 years)	CARE training	Standard training	CARE = 13 Standard = 14	Association between being in the intervention group and anxiety score at 1 month/3 months follow up Association between being in the intervention group and depression score at 1 month/3 months follow up

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
					Association between being in the intervention group and anger/aggression score at 1 month/3 months follow up Association between being in the intervention group and post-traumatic stress arousal score at 1 month/3 months follow up
Mezey 2015 (UK – RCT)	Under the care of the LA in children's homes or with foster carers or were care leavers. (age 14 to 18 years)	Peer Mentoring Intervention	CAU	Peer mentoring = 11 CAU = 8	Symptoms of anxiety or depression at 12 months post baseline Emotional health rated ok or better at 12 months postbaseline Self-harm during 12 months postbaseline Suicide attempt during 12 months postbaseline Self-determination since 12 months postbaseline Self-esteem change in self-esteem from 12 months postbaseline Attitudes to pregnancy Physical health rated OK or better at 12 months postbaseline Used at least one substance during 12 months postbaseline: Drank alcohol fortnightly or more often during 12 months postbaseline Drank six or more units on at least one occasion during 12 months postbaseline Anyone raised concerns over drinking during 12 months postbaseline

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
					Currently smoke regularly 12 months postbaseline Healthcare interaction during 12 months postbaseline: seen sexual health practitioner Seen doctor more than 6 times during 12 months postbaseline
Midgley 2019 (UK - RCT)	Children in foster care with mental health difficulties (aged 5 to 16)	Mentalisation-based therapy (MBT)	Usual Clinical Care (UCC)	MBT = 13 UCC = 21	Child-reported total strengths and difficulties score at 24 weeks
Minnis 2001 (UK- RCT)	Foster care (age 5 to 16 years)	Foster carer training	CAU	Training = 62 CAU = 88	Self-esteem mean score at 9 months follow up Strengths and Difficulties mean score at 9 months follow up
Moody 2020 (UK – RCT)	Foster carers (age of children not reported)	Fostering Changes (FC)	CAU	FC = 153 CAU = 76	Strengths and Difficulties mean score at 12 months follow up
Nelson 2013 (USA – RCT)	Children in state dependency (age between 10 – 24 months)	Promoting First Relationships	Early Education Support	PFR = 21 EES = 25	Association between post-strange situation cortisol and being in the intervention group
Oman 2016 (USA – RCT)	Youth in Group overseen by child welfare and/or juvenile justice systems (age 13 – 18 years)	Power Through Choices	CAU	PTC = 468 CAU = 484	Support for methods of sexual protection score, mean difference between comparison groups: the Youth Risk Behaviour Surveillance System or from the Prevention Minimum Evaluation Data Set Number definitely not and probably not going to have sex

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
					Number who would definitely/probably use a condom Number who would definitely and probably use a method of birth control Inability to communicate with partner score at postintervention Plan for protected sex and to avoid unprotected sex score at postintervention Difference in mean percentage “very sure” of where to get birth control between comparison groups at postintervention
Pears 2007 (USA- RCT)	Foster children entering second grade (7-8 years) through kindergarten (5-6 years	Therapeutic playgroups (TP)	CAU	TP = 10 CAU = 10	Emotional regulation/emotional lability at 2 weeks follow up: assessed by Emotion Regulation Checklist
Pears 2016 (USA – RCT)	Nonkinship or kinship foster care	Kids In Transition to School (KITS) programme	Foster care as usual (FCC)	KITS = 102 FCC = 90	Emotional regulation score following intervention Self-regulatory skills following intervention before starting school Positive attitudes towards alcohol at 9 years of age Self-competence at 9 years of age Positive attitudes towards alcohol at 9 years of age Self-competence at 9 years of age
Pfeiffer 2018 (Germany - RCT)	Refugees (unaccompanied) in the child and	Mein Weg (trauma focussed intervention)	CAU	Mein Weg = 50 CAU = 49	Severity of PTSS self-report, at 2 months postbaseline

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
	adolescent welfare system (age 13 – 21 years) with exposure to traumatic event				Symptoms of Depression at 2 months postbaseline Dysfunctional posttraumatic cognition at 2 months postbaseline Caregiver-rated PTSS symptoms at 2 months postbaseline
Reddy 2013 (USA – RCT)	Adolescents in foster care (age 13 – 17 years)	Cognitively-Based Compassion Training	WL	CBCT = 35 WL = 35	Depressive symptoms mean score at postintervention Anxiety mean score at postintervention Hope mean score at postintervention Difficulty with emotional regulation score at postintervention Callous and unemotional traits Positive and negative emotions about self and others mean score at postintervention
Shuurmans 2017 (Netherlands – RCT)	In residential care with elevated levels of both anxiety and externalizing problems	Videogame Intervention (Dojo)	CAU	Dojo = 18 CAU = 19	Self-reported anxiety at postintervention/ 4-months Mentor-reported anxiety at postintervention/4-months
Smith 2010 (USA – RCT)	Male adolescents mandated into residential care/foster care by juvenile court.	Multidimensional Treatment Foster Care	Group Care	MTFC = 37 GC = 42	Change in tobacco use at 12 months/18 months follow up Change in marijuana use at 12 months/18 months follow up Change in alcohol use at 12 months/18 months follow up change in other drug use at 12 months/18 months follow up

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
Suomi 2020 (Australia – RCT)	Looked after children (aged 0 – 14 years)	kContact	CAU	kContact = 100 CAU = 83	Carer-reported risk of Child Abuse at 9 months Carer-reported strengths and difficulties questionnaire at 9 months
Taussig 2010/Weiler 2019 (USA – RCT)	Children in foster care (age 9 – 11 years)	Fostering Health Futures	CAU	FHF = 76 CAU = 68	Mental health factor score at 6 months/9 months Posttraumatic symptoms at 6 months/9 months Positive coping, youth report at 6 months/9 months Negative coping, youth report at 6 months/9 months Global self-worth, youth report at 6 months/9 months Social acceptance, youth report at 6 months/9 months Dissociation symptoms at 6 months/9 months Received recent MH therapy at 6 months/ 9 months On current MH therapy at 6 months/ 9 months On medication for MH problems recently at 6 months/ 9 months on current medication for MH problems at 6 months/ 9 months Quality of life at 6 months/ 9 months Social support factor score at 6 months/ 9 months

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
Taussig 2019	Children in foster care (age 9 – 11 years)	Fostering Health Futures	CAU	FHF = 213 CAU = 167	Child-reported Posttraumatic Stress and Dissociation score at 10 months Children's use of mental health services and psychotropic medications based on child and caregiver reports qt 10 months Child-reported quality of life at 10 months
Van Andel 2016 (Netherlands – RCT)	Preschool aged children in foster care	Foster family intervention (training)	CAU	FFI = 65 CAU = 58	Change in salivary cortisol from baseline
Van Lieshout 2019 (Netherlands – RCT)	Boys in residential youth care (age 12 – 18)	Make a Move	WL	Make a Move: 76 WL: 99	Attitude communication score at 8 weeks/6 months follow up Attitude self-control score at 8 weeks/6 months follow up Attitude boundaries score at 8 weeks/6 months follow up Boundaries score at 8 weeks/6 months follow up Empathy score at 8 weeks /6 months follow up Adverse sexual beliefs score at 8 weeks/6 months follow up Attitude dating violence score at 8 weeks follow up Rape attitude score at 8 weeks/6 months follow up Self-efficacy self-control score at 8 weeks/6 months follow up Self-efficacy communication score at 8-weeks/6 months follow up

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
					Self-efficacy peer pressure score at 8 weeks/6 months follow up Social norms score at 8 weeks/6 months follow up Intention score at 8 weeks/6 months follow up Outcome expectancies score at 8 weeks/6 months follow up Self-esteem score at 8 weeks/6 months follow up

Qualitative Evidence

Table 3: Summary of the qualitative studies contained within this evidence review

Study (country)	Intervention	LACYP population (age)	Setting and context	Type of analysis	Perspectives (n)
Alderson 2019 (UK)	Motivational Enhancement Therapy (MET) and Social Behaviour and Network Therapy (SBNT)	Looked after young people and care leavers screened positive for being at risk of substance use (aged 12 to 20 years old)	looked after children taking part in a randomised controlled trial of a behavioural change intervention to reduce risky substance use (drug and alcohol)	Individual 1:1 interviews with looked after children and carers and focus groups with professional participants. Transcripts were thematically analysed, The data were compared across the three participant groups (i.e. LAC, professionals and carers) with similarities and differences being highlighted.	looked after children (19) carers (17) drug and alcohol workers (8) social workers (8)
Aventin 2014 (UK)	Computer game based	Looked after persons in	Three children's care homes in Northern Ireland	Semi-structured interviews with staff and young people regarding their views on the strengths and	Residential Social Workers (11), Youth in residential care (11)

Study (country)	Intervention	LACYP population (age)	Setting and context	Type of analysis	Perspectives (n)
	therapeutic intervention	residential care (age not reported)		weaknesses of the intervention, experiences using it, perceptions of its therapeutic value, and barriers and facilitators of successful implementation (i.e. fidelity to implementation protocol). A thematic content analysis using an abbreviated version of grounded theory was performed.	
Barron 2017 (UK)	Group-Based Psychosocial Trauma Recovery Program	adolescents in a secure accommodation facility (age not reported)	A secure accommodation facility in Scotland.	Interviews were held with adolescents 1 month post TRT. Adolescents (n = 10) were asked what they thought of TRT including: whether it was helpful and in what ways; which parts worked best; what was learned; what strategies were applied in real life; how likely is it that they will use the strategies in real life (on a zero to ten scale); if any negative consequences were experienced and what would improve TRT? Analysis involved a quasi-qualitative thematic analysis.	Looked after young people (10) A focus group was held with the three presenters and the support services manager after TRT ended.
Bywater 2011 (UK/Wales)	Incredible Years	Children in foster care where the child was likely to remain in placement for 6 months (age 2 – 17 years)	Multi-centre Incredible years pilot parenting programme delivered to parents and carers in foster care	Semi-structured interviews covering experiences and views on the delivery of the programme to foster carers. Thematic analysis was used.	Incredible Years Facilitators (7) Foster carers (unclear number contributed to qualitative evidence)
Castellanos -Brown 2010 (USA)	Treatment Foster Care	Youth transitioning from group settings (age not reported)	A private social service agency serving youth from several public systems, including	Semi-structured interviews with thematic analysis. Multiple analysts were used.	Treatment foster care parents (22)

Study (country)	Intervention	LACYP population (age)	Setting and context	Type of analysis	Perspectives (n)
			child welfare, mental health, and juvenile justice.		
Channon 2020 (UK)	Fostering Changes	Children in foster care (aged 2 or older)	Qualitative study embedded within a randomised controlled trial of the Fostering Changes Programme for foster carers in the United Kingdom	Individual stakeholder semi-structured interviews and the focus group with the training managers were completed after the courses included in the trial were finished. Interview questions were informed by the research aims. Interview and focus group data were subject to thematic analysis.	Local authority and Independent Fostering Agency Training Managers (7) Foster carers who elected not to take part in the programme (8) Foster carers who attended the fostering changes programme (18), Social workers (12) Trainers (5)
Conn 2018 (USA)	Incredible Years	Children in foster care (age 2 – 7 years)	Pilot randomized controlled trial of foster parent training (IY) in USA.	Foster groups and individual interviews. Focus groups covered foster parents' acceptability of the program and factors that contributed to or impeded program effectiveness. In-depth interviews were used to understand the factors that contribute to the sustained impact of training on foster parents' parenting skills and attitudes. Thematic analysis was used with multiple coders.	Foster carers (9)
Cox 2018 (Australia)	Health and Wellbeing Co-ordinators	Looked after children in residential care (age not reported)	Residential out of home care	Carers and programme co-ordinators were interviewed. Interviews were conducted after completion of the intervention. Carers were asked specific questions related to: (1) establishment and/or maintenance of healthy lifestyle habits; (2)	Carers (17) And HEAL co-ordinators

Study (country)	Intervention	LACYP population (age)	Setting and context	Type of analysis	Perspectives (n)
				barriers to creating a healthy eating and active living environment in residential care; and (3) suggestions for future programme development. Three researchers performed thematic analysis.	
Dimaro 2014 (UK)	Psychological consultation to social workers	Looked after children and young people (age not reported)	Nottingham City Children Looked After Capital Team	Focus group discussion initially concentrated on service context and background to the evaluation, i.e. the intended aims and remit of the service, what the consulting clinicians wanted to learn and what they expected the feedback to be, before progressing to consider results from the feedback survey and reflect on possible understandings and implications of these data. Inductive content analysis was used to analyse the focus group transcripts.	CAMHS clinicians (9)
Francis 2017 (UK)	Theraplay	Looked after children who would benefit from additional psychology service support (primary school age)	Looked after children referred from nine primary schools in an English local authority (Leicester)	Post-intervention qualitative data were collected from the child's significant adult in school, using semi-structured interviews involving open and closed questions. A small number of semi-structured interviews with carers and a social worker were completed. The data were transcribed and analysed using thematic analysis.	Looked after children (20)
Frederico 2017 (Australia)	Treatment Foster Care	Looked after children and young people in	Children allocated to the Circle Programme -	Seven focus groups were conducted jointly with Circle and generalist foster carers and professional workers. Interviews	Therapeutic foster carers and generalist foster carers, foster care workers and therapeutic specialists (43)

Study (country)	Intervention	LACYP population (age)	Setting and context	Type of analysis	Perspectives (n)
		therapeutic foster care	Treatment Foster Care	with therapeutic specialsts. The data from focus groups were analysed to identify common themes.	
Kirton 2011 (UK)	Multidimensional Treatment Foster Care (MTFC)	Looked after children involved with an evaluation of multidimensional treatment foster care (most were aged 13 or older)	Local evaluation of MTFC within one of the pilot local authorities.	Semi-structured interviews. Unclear how data was analysed).	Foster carers (8), children's social workers (6), supervising social workers (2), individual therapists, birth family therapists, skills workers (3), social work assistants, programme supervisor (1), programme manager (1), members of the management board (4)
Haight 2010 (USA)	Life Story Intervention	Looked after children and young people (age 7 to 15 years)	Rural setting in Illinoise (American Midwest)	Following the intervention, in semi-structured interviews children were asked: what was it like for you meeting with (community clinician)? What kinds of things did you do together? Has meeting with (community clinician) been helpful to you? How? Do you think this program would be helpful to other kids? What could we do to make the program better? Children's interviews were transcribed verbatim. Thematic analysis was performed. Member checking occurred through discussion of the coding with several participant adults.	Looked after children and young people (8)
Jee 2014 (USA)	Mindfulness-based Stress reduction	Looked after children in foster care and supervised	A pilot randomized trial teaching mindfulness-based stress reduction to	Focus groups were held with the intervention group participants to answer pre-approved questions about their satisfaction with the	Looked after young people (21)

Study (country)	Intervention	LACYP population (age)	Setting and context	Type of analysis	Perspectives (n)
		kinship care (aged 14 to 21)	traumatized youth in foster care, in Rochester, New York	program and the usefulness of the Mindfulness-Based Stress Reduction sessions. Unclear how thematic analysis was performed.	
Lee 2020* (USA)	Treatment Foster Care	Looked after persons in Treatment Foster Care	A project in the USA focused on building collaborative relationships between mental health therapists and child welfare workers.	Semi structured interviews. The semi-structured interview protocol was focused on the current landscape of TFC practice, the competencies needed by TFC parents, and innovations or best practices in providing training to TFC parents. Thematic analysis was performed by two researchers. Respondent validation was performed.	Professionals with significant practice and administrative experience in TFC (11) University-based researchers (7) Experts primarily knowledgeable about best practices in training and knowledge transfer in child welfare (5)
McMillen 2015 (USA)	Treatment Foster Care for Older Youth	Older foster care youth with psychiatric problems who had been hospitalized for psychiatric illness in the past year or were receiving psychotropic medications (aged 16 to 18 years old)	Part of a pilot RCT for Treatment Foster Care.	Semi-structured interviews. Sample questions and prompts with youth included the following. “Tell me about your experience with this part of the program.” “What do you like about it?” “What do you not like about it?” “What could be done differently to make this part of the program better?” Foster parents were asked about successes, how the provided training helped or did not help them foster the youth in their home, what things the staff did that were found to be helpful and what could be done differently to make the program better? Thematic analysis was used	Youth randomised to TFC (7), matched youth who were followed after care as usual (7), Foster parents, life skills coach,

Study (country)	Intervention	LACYP population (age)	Setting and context	Type of analysis	Perspectives (n)
Mezey 2015 (UK)	Peer mentoring intervention	Female looked after children and care leavers (age 14 to 18 years)	Three local authorities (LAs) in England	Follow-up semistructured interviews were conducted with mentors, mentees and PCs. The interviews explored their experiences of the mentoring relationship in terms of its acceptability, appropriateness and impact, their views of whether mentoring is effective, their views of how it effects change and their suggestions for how mentoring could be enhanced. Interviews were also sought with mentors or mentees who left the programme early, to understand their reasons for exiting the study. A thematic approach to the analysis of qualitative data was used. Multiple researchers took part in the coding.	Project Co-ordinators, senior managers and social workers (13) Five focus groups with local authority staff and two with looked after children; One interview with a university student from St George's, University of London.
Tullberg 2019* (USA)	Treatment Foster Care	Looked after persons in Treatment Foster Care	New York City Atlas Project TFC programs	Focus groups were loosely guided by a semi-structured protocol designed to elicit feedback from participants in three broad topic areas: (1) relationships and communication with foster care agency staff; (2) tools and training; and (3) mental health services and clinical care. To ensure rigor, two authors independently reviewed content and reached agreement via discussion on the major themes.	Treatment Foster Carers (75)
Vallejos 2015 (UK)	Kundalini yoga programme	Looked after children in private residential accommodation (age not reported)	A private residential provider comprising three children's homes	Participants' self-report perceptions on social inclusion, mental health and well-being and through semi-structured interviews on the benefits of the study. For the	Staff (9) and residents from each of the three children's home with different attendance rates during the programme

Study (country)	Intervention	LACYP population (age)	Setting and context	Type of analysis	Perspectives (n)
			situated within the East Midlands region of the UK.	qualitative portion semi-structured interviews were used. A representative sample of participants was selected to participate in interviews via stratified randomisation; strata were gender, status (resident/staff) and children's home. A thematic analysis was applied. The audio transcripts were first read at least twice and then double coded for themes independently by two of the authors.	

Summary of the evidence

Quantitative evidence

Table 4: Summary GRADE table (Parent Management Training Oregon (PMTO) vs Care as Usual (CAU))

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect
Caregiver-reported social-emotional functioning at postintervention: assessed using the Child and Adolescent Functioning Assessment Scale (CAFAS) and the Preschool and Early Childhood Functional Scale (PECFAS) (higher scores = worse)	121	**MD -29.20 (-47.27 to -11.13)**	Very Low	Effect favours intervention group but may be less than the MID
Caregiver-reported social-emotional functioning at 6-months: assessed using the Child and Adolescent Functioning Assessment Scale (CAFAS) and the Preschool and Early Childhood Functional Scale (PECFAS) (higher scores = worse)	918	**MD -26.00 (-36.28 to -15.72)**	Very Low	Effect favours intervention group but is less than the MID
Caregiver-reported social-emotional functioning at 12-months: assessed using the Child and Adolescent Functioning Assessment Scale (CAFAS) and the Preschool and Early Childhood Functional Scale (PECFAS) (higher scores = worse)	918	**MD -19.01 (-29.05 to -8.97)**	Very Low	Effect favours intervention group but is less than the MID

Table 5: Summary GRADE table (Multi-dimensional Treatment Foster Care for adolescents (MTFC-A) vs CAU)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Substance abuse over 1 year follow up:	46	OR: 0.45 (0.12 to 1.75)	Very Low	Could not differentiate effect
Substance abuse over 3 years follow up:	46	OR 0.45 (0.13 to 1.59)	Very Low	Could not differentiate effect
Health of the Nation Outcome Scales for Children and Adolescents mean score at 12 months	34	MD -0.89 [-2.86, 1.08]	Low	No meaningful difference
Adjusted mean difference in Health of the Nation Outcome Scales for Children and Adolescents score at 12 months	34	MD -1.04 (-6.21 to 4.13)	Low	No meaningful difference
Children’s Global Assessment Scale (CGAS) mean score at 12 month follow up	34	MD 0.75 [-2.50, 4.00]	Low	No meaningful difference
Adjusted mean difference in Children’s Global Assessment Scale (CGAS) score at 12 month follow up	34	MD 1.30 (-7.14 to 9.74)	Low	No meaningful difference

Table 6: Summary GRADE table (Multi-dimensional Treatment Foster Care for adolescents (MTFC-A) vs Group Care)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Association between being in the MTFC group and pregnancy at 24 months follow up	166	**OR 0.41 (0.23 to 0.75)**	Low	Effect favours intervention
Association between being in the intervention group and reduction in depression symptoms over 24 month follow up	166	**Beta coefficient -0.34 (P<0.05)**	Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Adjusted odds of clinical depression from being in the intervention group over 24 months follow up	166	**OR 0.57 (0.39 to 0.83)**	Very Low	Effect favours intervention group but may be less than the MID
Association between being in the intervention group and Psychotic Symptoms (BSI) over 24 months follow up	166	**beta coefficient -2.05 (-3.87 to -0.23)**	Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Association between being in the intervention group and DISC-IV psychotic symptoms at 24 months follow up	166	**beta coefficient -0.65 (-1.08 to -0.22)**	Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Association between being in the intervention group and change in depressive symptoms (CES-D) over 9 years follow up	166	**Beta coefficient -0.855 (-1.62 to -0.09)**	Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Association between being in the intervention group and change in occurrence of suicidal ideation over 9 years follow up	166	OR 0.92 (0.84 to 1.01)	Low	No meaningful difference
Association between being in the intervention group and postbaseline suicide attempts over 9 years follow up	166	Beta coefficient 0.16 (-0.29 to 0.61)	Low	No association was observed
Intervention effect on change in tobacco use at 12 months follow up:	79	Beta coefficient -0.15 (P>0.05).	Very low	No association was observed

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Intervention effect on change in tobacco use at 18 months follow up	79	**Beta coefficient -0.34 (P<0.01)**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Intervention effect on change in marijuana use at 12 months follow up:	79	Beta coefficient -0.10 (P>0.05).	Very low	No association was observed
Intervention effect on change in marijuana use at 18 months follow up	79	**Beta coefficient -0.30 (P<0.01)**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Intervention effect on change in alcohol use at 12 months follow up	79	Beta coefficient -0.16 (P>0.05)	Low	No association was observed
Intervention effect on change in alcohol use at 18 months follow up	79	Beta coefficient -0.14 (P>0.05)	Low	No association was observed
Intervention effect on change in other drug use at 18 months follow up	79	**Beta coefficient -0.26 (P<0.05)**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Intervention effect on change in other drug use at 18 months follow up	79	**Beta coefficient -0.24 (P<0.05)**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)

Table 7: Summary GRADE table (Multi-dimensional Treatment Foster Care for preschoolers (MTFC-P) vs Usual Care)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect
Association between being in the routine foster care group and AM salivary cortisol over 12 months follow up	117	Beta coefficient -0.027 (-0.09 to 0.03)	Low	No association was observed
Association between being in the routine foster care group and PM salivary cortisol over 12 months follow up	117	**Beta coefficient - 0.027 (0.29 to 0.99)**	Low	An association was observed in favour of the intervention group (unable to assess

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect
				if effect size is important)
Association between being in the routine foster care group and change in AM-PM salivary cortisol over 12 months follow up	117	**Beta coefficient -0.01 (-0.02 to -0.00)**	Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Relationship between being in the intervention group and postplacement morning to evening cortisol decrease	71	**Beta coefficient 0.40 (0.09 to 0.71)**	Very Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Mean saliva cortisol 1 week before the start of school: morning	16	MD 0.19 [-0.05, 0.43]	Very Low	Could not differentiate effect
Mean saliva cortisol 1 week before the start of school: afternoon	16	MD 0.02 [-0.03, 0.07]	Very Low	Could not differentiate effect
Mean saliva cortisol 1 week before the start of school: evening	16	MD -0.03 [-0.14, 0.08]	Very Low	Could not differentiate effect
Mean salivary cortisol on the 1st day of school: morning	16	MD 0.05 [-0.24, 0.34]	Very Low	Could not differentiate effect
Mean salivary cortisol on the 1st day of school: afternoon	16	MD -0.03 [-0.13, 0.07]	Very Low	Could not differentiate effect
Mean salivary cortisol on the 1st day of school: evening	16	MD -0.04 [-0.09, 0.01]	Very Low	Could not differentiate effect
Mean salivary cortisol on the 5th day of school: morning	16	MD -0.23 [-0.64, 0.18]	Very Low	Could not differentiate effect
Mean salivary cortisol on the 5th day of school: afternoon	16	MD -0.04 [-0.18, 0.10]	Very Low	Could not differentiate effect
Mean salivary cortisol on the 5th day of school: evening	16	MD 0.00 [-0.01, 0.01]	Very Low	Could not differentiate effect

Table 8: Summary GRADE table (Treatment Foster Care (together facing the challenge) vs Treatment Foster Care as Usual)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
The strengths and difficulties questionnaire z score of the difference of means between intervention group and comparison group at 6 months: assessed using the strengths and difficulties questionnaire	247	**MD 0.41 (0.17 to 0.65)**	Low	An association was observed in favour of the intervention group (unable to assess

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
				if effect size is important)
The strengths and difficulties questionnaire z score of the difference of means between intervention group and comparison group at 12 months: assessed using the strengths and difficulties questionnaire	247	MD 0.16 (-0.12 to 0.44)	Low	No association was observed
Association between being in the intervention group and strengths and difficulties questionnaire score by 12 months	247	**Beta coefficient -0.18 (-0.33 to -0.03)**	Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Behavioural and Emotional Rating z score of the mean differences between intervention and comparison group at 6 months: assessed using the Behavioural and Emotional Rating Scale	247	**MD -0.243 (-0.45 to -0.03)**	Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Behavioural and Emotional Rating z score of the mean differences between intervention and comparison group at 12 months: assessed using the Behavioural and Emotional Rating Scale	247	MD -0.02 (-0.25 to 0.21)	Low	No association was observed
Association between being in the intervention group and Behavioural and Emotional Rating Scale score by 12 months	247	Beta coefficient 0.07 (-0.07 to 0.20)	Low	No association was observed

Table 9: Summary GRADE table (Taking Care Triple vs Care as Usual)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Presence of a child mental disorder at 12 months: measured using Diagnostic Interview of Mental Disorders in Childhood and Adolescents (KinderDIPS)	87	Beta -0.01, SE 0.29, p=0.990	Very low	No association was observed
Child anxiety symptoms score at 12 months: measured using the Preschool Anxiety Scale	87	Beta -3.63, SE 4.08, p=0.378	Very low	No association was observed

Table 10: Summary GRADE table (Health And wellbeing coordinator vs wait list control)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Number of serves on the previous day of sugary drinks at 6 months follow up: assessed using the Children's Eating	57	MD 0.90 (-0.79 to 2.59)	Very low	Could not differentiate effect

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
and Physical Activity Questionnaire (EPAQ).				
Number of serves on the previous day of sugary drinks at 12 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).	42	MD 0.11 [-1.64 to 1.86]	Very low	Could not differentiate effect
Number of serves on the previous day of health foods at 6 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).	57	MD -0.58 (-1.86 to 0.70)	Very low	Could not differentiate effect
Number of serves on the previous day of health foods at 12 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).	42	MD 0.64 [-1.40 to 2.68]	Very low	Could not differentiate effect
Number of serves on the previous day of unhealthy foods at 6 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).	57	MD 1.20 (-0.18 to 2.58)	Very low	Could not differentiate effect
Number of serves on the previous day of unhealthy foods at 12 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).	42	MD 1.21 [-1.27 to 3.69]	Very low	Could not differentiate effect
Number of minutes of screen time in in 1 day at 6 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).	57	MD -71.75 [-217.89 to 74.39]	Very low	Could not differentiate effect
Number of minutes of screen time in in 1 day at 12 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).	42	**MD 113.44 [8.20 to 218.68]**	Very low	Effect favours control group but may be less than the MID
Number of active days in a week at 6 months follow up: assessed using the Adolescent Physical Activity Measure	57	**MD -1.68 [-3.18 to -0.18]**	Very low	Effect favours control group but may be less than the MID
Number of active days in a week at 12 months follow up: assessed using the Adolescent Physical Activity Measure	42	**MD -1.68 [-3.18 to -0.18]**	Very low	Effect favours control group
BMI z-score at 6 months follow up: calculated using height and weight measures, BMI for-age z-scores were calculated	57	MD 0.18 [-0.79 to 1.15]	Very low	Could not differentiate effect
BMI z-score at 12 months follow up: calculated using height and weight measures, BMI for-age z-scores were calculated	42	MD 0.37 [-0.97 to 1.71]	Very low	Could not differentiate effect

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Symptoms of depression mean score at 6 months follow up: assessed using the Depression Anxiety Stress Scale	57	MD 0.90 [-8.52 to 10.32]	Very low	Could not differentiate effect
Symptoms of depression mean score at 12 months follow up: assessed using the Depression Anxiety Stress Scale	42	**MD 14.80 [9.04, 20.56]**	Very low	Effect favours control group
Symptoms of anxiety mean score at 6 months follow up: assessed using the Depression Anxiety Stress Scale	57	MD -0.50 [-6.48 to 5.48]	Very low	Could not differentiate effect
Symptoms of anxiety mean score at 12 months follow up: assessed using the Depression Anxiety Stress Scale	42	**MD 12.30 [7.36, 17.24]**	Very low	Effect favours control group
Symptoms of stress mean score at 6 months follow up: assessed using the Depression Anxiety Stress Scale	57	MD -1.50 [-9.94 to 6.94]	Very low	Could not differentiate effect
Symptoms of stress mean score at 12 months follow up: assessed using the Depression Anxiety Stress Scale	42	**MD 14.40 [6.41, 22.39]**	Very low	Effect favours control group

Table 11: Summary GRADE table (Fostering Healthy Futures vs Care as Usual)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Adjusted mental health factor score, multi-informant at 6 months	156	MD 0.08 (-0.22 to 0.38)	Low	No meaningful difference
Adjusted mental health factor score, multi-informant at 9 months	156	**MD -0.52 (-0.84 to -0.20)**	Very low	Effect favours intervention group but may be less than the MID
Adjusted posttraumatic symptoms at 6 months, youth report, t score, mean:	156	MD -1.05 (-4.25 to 2.15)	Low	No meaningful difference
Adjusted posttraumatic symptoms at 9 months, youth report, t score, mean:	156	MD -2.79 (-5.70 to 0.12)	Very low	Could not differentiate effect
Adjusted positive coping, youth report at 6 months, mean:	156	MD 0.03 (-0.08 to 0.14)	Very low	No meaningful difference
Adjusted positive coping, youth report at 9 months, mean:	156	MD 0.08 (-0.03 to 0.19)	Very low	Could not differentiate effect
Adjusted Negative coping, youth report at 6 months, mean:	156	MD -0.01 (-0.07 to 0.05)	Very low	No meaningful difference
Adjusted Negative coping, youth report at 9 months, mean:	156	MD -0.05 (-0.11 to 0.01)	Very low	Could not differentiate effect
Adjusted global self-worth, youth report at 6 months, mean	156	MD 0.03 (-0.15 to 0.21)	Very low	No meaningful difference
Adjusted global self-worth, youth report at 9 months, mean	156	MD 0.10 (-0.07 to 0.27)	Very low	Could not differentiate effect

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Adjusted social acceptance, youth report at 6 months, mean:	156	MD 0.12 (-0.12 to 0.36)	Very low	No meaningful difference
Adjusted social acceptance, youth report at 9 months, mean:	156	MD 0.10 (-0.09 to 0.29)	Very low	Could not differentiate effect
Dissociation symptoms at 6 months, youth report, t score, mean:	156	MD -1.25 (-4.31 to 1.81)	Very low	No meaningful difference
Dissociation symptoms at 9 months, youth report, t score, mean:	156	**MD -3.66 (-6.52 to -0.80)**	Very low	Effect favours intervention group but may be less than the MID
Adjusted Received recent MH therapy, youth report, (%) at 6 months:	156	OR 0.68 [0.34, 1.36]	Very low	Could not differentiate effect
Adjusted Received recent MH therapy, youth report, (%) at 9 months:	156	**OR 0.46 [0.23, 0.92]**	Very low	Effect favours intervention group but may be less than the MID
Adjusted on current MH therapy, caregiver report, (%) at 6 months:	156	OR 0.59 [0.30, 1.17]	Very low	Could not differentiate effect
Adjusted on current MH therapy, caregiver report, (%) at 9 months:	156	OR 0.67 [0.35, 1.29]	Very low	Could not differentiate effect
Adjusted on medication for MH problems recently at 6 months, youth report, (%):	156	OR 0.59 [0.21, 1.64]	Very low	Could not differentiate effect
Adjusted on medication for MH problems recently at 9 months, youth report, (%):	156	OR 0.68 [0.25, 1.84]	Very low	Could not differentiate effect
Adjusted on current medication for MH problems, caregiver report, at 6 months:	156	OR 1.14 [0.42, 3.07]	Very low	Could not differentiate effect
Adjusted on current medication for MH problems, caregiver report, at 9 months:	156	OR 0.55 [0.21, 1.44]	Very low	Could not differentiate effect
Adjusted Quality of life at 6 months, youth report, mean: assessed using the Life Satisfaction Survey,	156	**MD 0.12 (0.04 to 0.20)**	Very low	Effect favours intervention group but may be less than the MID
Adjusted Quality of life at 12 months, youth report, mean: assessed using the Life Satisfaction Survey,	156	MD 0.04 (-0.04 to 0.12)	Very low	Could not differentiate effect
Adjusted social support factor score, youth report at 6 months, mean	156	MD 0.25 (-0.04 to 0.54)	Very low	Could not differentiate effect
Adjusted social support factor score, youth report at 9 months, mean	156	MD 0.02 (-30 to 0.34)	Low	No meaningful difference
Mental health score at 10 months: assessed using the mental health index	346	**MD -0.22 (-0.41, -0.03)**	Very low	Effect favours intervention group

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
				but may be less than the MID
Post-traumatic stress score at 10 months: assessed using the Posttraumatic Stress and Dissociation scales of the child self-report Trauma Symptom Checklist for Children	375	MD -1.76 (-3.53, 0.01)	Very low	Could not differentiate effect
Dissociation score at 10 months: assessed using the Posttraumatic Stress and Dissociation scales of the child self-report Trauma Symptom Checklist for Children	375	**MD -2.43 (-4.15, -0.71)**	Very low	Effect favours intervention group but may be less than the MID
Quality of life at 10 months: assessed using the Life Satisfaction Scale	375	MD 0.12 (-0.01, 0.09)	Very low	Could not differentiate effect
Children's use of mental health services at 10 months: assessed based on child and caregiver reports	377	**OR 0.62 (0.40 to 0.97)**	Very low	Effect favours intervention group but may be less than the MID
Children's use of psychotropic medications at 10 months: assessed based on child and caregiver reports	378	OR 1.01 (0.53 to 1.94)	Very low	Could not differentiate effect

Table 12: Summary GRADE table (Attachment and Biobehavioural Catch-up (ABC) vs Developmental Education for Families (DEF))

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Salivary mean AM cortisol: units ug/dl	60	**MD -0.39 [-0.75 to -0.03]**	Very low	Effect favours intervention group but may be less than the MID
Salivary mean PM cortisol: units ug/dl	60	**MD -0.30 [-0.55, -0.05]**	Very low	Effect favours intervention group but may be less than the MID
Overall mean difference between groups for salivary cortisol: units ug/dl	60	**MD 0.29 (-0.59 to -0.15)**	Very low	Effect favours intervention group but may be less than the MID
Initial salivary cortisol levels (pre-strange situation): association between being in the ABC group and initial cortisol level	93	beta coefficient -0.27 (-0.47 to -0.07)	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Salivary cortisol following strange situation: association between being in the ABC group and change in salivary cortisol following the strange situation	93	beta coefficient: 0.06 (-0.02 to 0.14)	Very low	An association was observed in favour of the intervention group (unable to assess

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
				if effect size is important)

Table 13: Summary GRADE table (TAKE CHARGE (individualised coaching and group mentoring) vs Usual Care)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Self-determination score following intervention	120	MD 2.91 (-0.28 to 6.10)	Very low	Could not differentiate effect
Self-determination score following at 9-months follow up	120	MD 2.80 (-0.31 to 5.91)	Very low	Could not differentiate effect
Youth self-report anxiety mean score at postintervention follow up: Youth Self Report scale	120	**MD -2.59 (-4.70 to -0.48)**	Very low	Effect favours intervention group but may be less than the MID
Youth self-report anxiety mean score at 9-months follow up: Youth Self Report scale	120	**MD -0.52 [-2.64 to 1.60]**	Very low	Effect favours intervention
Carer reported child anxiety-depressed mean score at postintervention: assessed using the child behaviour checklist	120	**MD -5.10 (-7.88 to -2.32)**	Very low	Effect favours intervention group but may be less than the MID
Carer reported child anxiety-depressed mean score at 9-months follow up: assessed using the child behaviour checklist	120	**MD -2.80 [-5.59 to -0.01]**	Very low	Effect favours intervention group but may be less than the MID
Carer reported child withdrawn-depressed mean score at postintervention: assessed using the child behaviour checklist	120	**MD -3.47 [-6.48 to -0.46]**	Very low	Effect favours intervention group but may be less than the MID
Carer reported child withdrawn-depressed mean score at postintervention: assessed using the child behaviour checklist	120	**MD -2.96 [-5.79 to -0.13]**	Very low	Effect favours intervention group but may be less than the MID
Carer reported child somatic complaints mean score at postintervention: assessed using the child behaviour checklist	120	MD -2.86 [-6.31 to 0.59]	Very low	Could not differentiate effect
Carer reported child somatic complaints mean score at 9-months follow up: assessed using the child behaviour checklist	120	**MD -4.44 [-7.36 to -1.52]**	Very low	Effect favours intervention group but may be less than the MID

Table 14: Summary GRADE table (Better futures (summer institute; individual coaching; mentoring workshop) vs Usual Care)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Self-determination score following intervention: AIR Self-Determination Scale	67	**MD 11.55 (3.72 to 19.38)**	Very low	Effect favours intervention group but may be less than the MID
Self-determination score following at 6-months follow up: AIR Self-Determination Scale	67	**MD 13.98 (6.71 to 21.25)**	Very low	Effect favours intervention group but may be less than the MID
Self-determination post intervention: assessed by the Arc self-determination scale	67	**MD 14.34 (4.50 to 24.18)**	Very low	Effect favours intervention group but may be less than the MID
Self-determination at 6 months follow up: assessed by the Arc self-determination scale	67	**MD 21.83 (13.69 to 29.97)**	Very low	Effect favours intervention
Quality of life questionnaire post-intervention mean score: assessed by the Quality of Life Questionnaire	67	MD 2.23 [-4.59 to 9.05]	Very low	Could not differentiate effect
Quality of life questionnaire at 6 months mean score: assessed by the Quality of Life Questionnaire	67	**MD 8.46 [3.28 to 13.64]**	Very low	Effect favours intervention group but may be less than the MID
Hopelessness score at postintervention: assessed by the Hopelessness Scale for Children	67	**MD -5.78 [-9.39, -2.17]**	Very low	Effect favours intervention group but may be less than the MID
Hopelessness score at 6-months follow up: assessed by the Hopelessness Scale for Children	67	**MD -6.20 (-9.42 to -2.98)**	Very low	Effect favours intervention group but may be less than the MID
Mental health recovery score at postintervention: assessed by Mental Health Recovery Measure	67	MD 7.51 [-1.10, 16.12]	Very low	Could not differentiate effect
Mental health recovery score at 6-months follow up: assessed by Mental Health Recovery Measure	67	**MD 8.91 [0.60, 17.22]**	Very low	Effect favours intervention group but may be less than the MID

Table 15: Summary GRADE table (Middle school success intervention vs care as usual)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Substance use score at 3 years follow up (composite): girls were asked how many times in the past year they had (a) smoked cigarettes or chewed tobacco, (b) drank alcohol (beer, wine, or hard liquor), and (c) used marijuana. The	100	**MD -0.74 (-1.33 to -0.15)**	Very low	Effect favours intervention group but may be less than the MID

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
response scale ranged from 1 (never) through 9 (daily).				
Tobacco use score at 3 years follow up (composite): girls were asked how many times in the past year they had smoked cigarettes or chewed tobacco. The response scale ranged from 1 (never) through 9 (daily).	100	**MD -0.87 (-1.69 to -0.05)**	Very low	Effect favours intervention group but may be less than the MID
Alcohol use score at 3 years follow up (composite): girls were asked how many times in the past year they had drank alcohol (beer, wine, or hard liquor). The response scale ranged from 1 (never) through 9 (daily).	100	**MD -0.31 (-0.78 to 0.16)**	Very low	Effect favours intervention group but may be less than the MID
Marijuana use score at 3 years follow up (composite): girls were asked how many times in the past year they had used marijuana. The response scale ranged from 1 (never) through 9 (daily)	100	**MD -1.04 (-1.74 to -0.34)**	Very low	Effect favours intervention group but may be less than the MID

Table 16: Summary GRADE table (Child adult relationship enhancement (CARE): Care Training vs Standard Training)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Association between being in the intervention group and anxiety score at 1 month follow up: assessed by the trauma symptom checklist for young children	31	Beta coefficient: -6.09 (-13.52 to 1.33)	Moderate	No association was observed
Association between being in the intervention group and anxiety score at 3 months follow up: assessed by the trauma symptom checklist for young children	31	**Beta coefficient: -10.07 (-18.99 to -1.15)**	Moderate	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Association between being in the intervention group and depression score at 1 month follow up: assessed by the trauma symptom checklist for young children	31	Beta coefficient: -9.1 (-19.92 to 1.72)	Moderate	No association was observed
Association between being in the intervention group and depression score at 3 month follow up: assessed by the trauma symptom checklist for young children	31	Beta coefficient: -11.04 (-23.27 to 1.19)	Moderate	No association was observed
Association between being in the intervention group and anger/aggression score at 1 month follow up: assessed by the trauma symptom checklist for young children	31	Beta coefficient: -2.53 (-7.49 to 2.43)	Moderate	No association was observed

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Association between being in the intervention group and anger/aggression score at 3 months follow up: assessed by the trauma symptom checklist for young children	31	Beta coefficient: -8.06 (-19.82 to 3.7)	Moderate	No association was observed
Association between being in the intervention group and post-traumatic stress arousal score at 1 month follow up: assessed by the trauma symptom checklist for young children	31	Beta coefficient: -4.44 (-11.95 to 3.07)	Moderate	No association was observed
Association between being in the intervention group and post-traumatic stress arousal score at 3 months follow up: assessed by the trauma symptom checklist for young children	31	Beta coefficient: -6.83 (-16.32 to 2.66)	Moderate	No association was observed

Table 17: Summary GRADE table (Foster Carer Training vs Care as Usual)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Self-esteem mean score (Modified Rosenberg Self-esteem Scale) at 9 months follow up	100	MD -1.00 [-2.77, 0.77]	High	No meaningful difference
Strengths and Difficulties mean score (Strengths and Difficulties Scale) at 9 months follow up: foster carer reported	100	MD 2.00 [-0.60, 4.60]	Moderate	Could not differentiate effect
Strengths and Difficulties mean score (Strengths and Difficulties Scale) at 9 months follow up: teacher-reported	100	**MD 6.00 [3.53, 8.47]**	Moderate	Effect favours intervention group but may be less than the MID
Strengths and Difficulties mean score (Strengths and Difficulties Scale) at 9 months follow up: child self-report	100	**MD 3.00 [0.53, 5.47]**	Moderate	Effect favours intervention group but may be less than the MID

Table 18: Summary GRADE table (Promoting First Relationships vs Early Education Support)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Association between post-strange situation cortisol and being in the intervention group (decreasing cortisol pattern, compared to flat)	48	OR 0.46 (0.04 to 6.03)	Very low	Could not differentiate effect
Association between post-strange situation cortisol and being in the intervention group (increasing cortisol pattern, compared to flat)	48	**OR 27.79 (1.20 to 643.47)**	Very low	Effect favours intervention group but may be less than the MID
Association between post-strange situation cortisol and being in the intervention group (increasing cortisol pattern, compared to decreasing)	48	**OR 60.08 (1.34 to 2691.40)**	Very low	Effect favours intervention group

Table 19: Summary GRADE table (Power Through Choices (PTC) vs Care as Usual)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Support for methods of sexual protection score, mean difference between comparison groups: items were from the Youth Risk Behavior Surveillance System or from the Prevention Minimum Evaluation Data Set	952	**0.17 (P<0.0001)**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Barriers to methods of sexual protection score, mean difference between comparison groups: assessed as above	952	0.06 (P=0.1163)	Very low	No association was observed
Mean percentage difference between comparison groups in number definitely not and probably not going to have sex: assessed as above	952	-1.4% (p=0.5504)	Very low	No association was observed
Mean percentage difference between comparison groups in number who would definitely/probably use a condom: assessed using items from the Youth Risk Behaviour Surveillance System or the Prevention Minimum Evaluation Data Set	952	**8.9% (p=0.0052)**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Percentage difference between comparison groups in number who would definitely and probably use a method of birth control: assessed as above	952	**8.1% (P=0.0422)**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Mean difference between comparison groups in ability to communicate with partner score at postintervention: assessed as above	952	**0.23 (p<0.0001)**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Mean difference between comparison groups for plan for protected sex and to avoid unprotected sex score at postintervention: assessed as above	952	**0.27 (P<0.0001)**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Difference in mean percentage “very sure” of where to get birth control between comparison groups at postintervention: assessed as above	952	**15.0% (P=0.0017)**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)

Table 20: Summary GRADE table (Kids in Transition to School (KITS) programme vs care as usual)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Emotional regulation score following intervention: assessed by a composite score from the anger subscale and the reactivity/soothability subscale (of the Children's Behaviour Questionnaire), the Emotion Regulation scale (of the Emotion Regulation Checklist), and the Emotion Control subscale (of the BRIEF–P)	192	MD 0.00 (-0.22 to 0.22)	Very low	No meaningful effect
Association between being in the intervention group and self-regulatory skills following intervention before starting school: assessed by composite of indicators of self-regulation, above (inhibitory control, behavioural regulation, emotional regulation)	192	**β 0.11 P<0.05**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Positive attitudes towards alcohol at 9 years of age: assessed by questions adapted from the Monitoring the Future National Survey Questionnaire	192	**MD -0.30 (-0.50 to -0.10)**	Very low	Effect favours intervention group but may be less than the MID
Self-competence at 9 years of age: assessed by six questions on the Global Self-Worth Scale of the Self-Perception Profile for Children.	192	**MD 1.91 (0.82 to 3.00)**	Very low	Effect favours intervention group but may be less than the MID
Association between being in the intervention group and positive attitudes towards alcohol at 9 years of age: assessed by questions adapted from the Monitoring the Future National Survey Questionnaire	192	**β -0.34 P<0.05**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Association between being in the intervention group and self-competence at 9 years of age: assessed based on the Global Self-Worth Scale of the Self-Perception Profile for Children	192	**β 1.95 P<0.01**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Salivary cortisol mean difference from days prior to intervention and the first day of school	192	**MD -0.03 [-0.06, -0.01]**	Very Low	Effect favours intervention group but may be less than the MID
The relationship between intervention status and 1st day of school salivary cortisol slope	192	**MD -0.05 (P<0.05)**	Very Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)

Table 21: Summary GRADE table ("Mein Weg" trauma-focussed group intervention vs Usual Care)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Severity of PTSS (assessed by Child and Adolescent Trauma Screen) self-report, at 2 months postbaseline	99	**MD -6.73 (-11.58 to -1.88)**	Low	Effect favours intervention group but may be less than the MID
Symptoms of Depression (assessed using the Patient Health Questionnaire 8) at 2 months postbaseline	99	**MD -3.51 (-5.60 to -1.42)**	Low	Effect favours intervention group but may be less than the MID
Dysfunctional posttraumatic cognition (assessed using the Child Posttraumatic Cognitions Inventory Short Version) at 2 months postbaseline	99	**MD -3.63 (-6.75 to -0.51)**	Low	Effect favours intervention group but may be less than the MID
Caregiver-rated PTSS symptoms (measured by the CATS caregiver version) at 2 months postbaseline:	99	MD -1.24 (-5.08 to 2.59)	Low	Could not differentiate an effect

Table 22: Summary GRADE table (Foster Family Intervention vs CAU)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Salivary cortisol. intervention group compared to care as usual for change in salivary cortisol from baseline, beta coefficient (95%CI): not controlled for time of day	123	Beta coefficient 0.08 (-0.41 to 0.57)	Low	No association was observed
Salivary cortisol. intervention group compared to care as usual for change in salivary cortisol from baseline, beta coefficient (95%CI): controlled for time of day	123	Beta coefficient 0.38 (-0.13 to 0.89)	Low	No association was observed

Table 23: Summary GRADE table ("Make a Move" Sexual Harassment Prevention Program vs Wait list control)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Attitude communication score at 8 weeks postintervention	177	MD 0.09 [-0.39, 0.57]	Very Low	No meaningful effect
Attitude communication score at 6 months postintervention	177	MD 0.02 [-0.37, 0.41]	Very Low	No meaningful effect
Attitude self-control score at 8 weeks postintervention	177	MD 0.19 [-0.24, 0.62]	Very Low	No meaningful effect
Attitude self-control score at 6 months postintervention	177	MD 0.33 [-0.05, 0.71]	Very Low	Could not differentiate
Attitude boundaries score at 8 weeks postintervention	177	MD 0.00 [-0.45, 0.45]	Very Low	No meaningful effect
Attitude boundaries score at 6 months postintervention	177	MD -0.05 [-0.40, 0.30]	Very Low	No meaningful effect

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Empathy score at 8 weeks postintervention	177	MD 0.35 [-0.15, 0.85]	Very Low	Could not differentiate
Empathy score at 6 months postintervention	177	MD -0.37 [-0.88, 0.14]	Very Low	Could not differentiate
Adverse sexual beliefs score at 8 weeks postintervention	177	MD -0.42 [-0.91, 0.07]	Very Low	Could not differentiate
Adverse sexual beliefs score at 6 months postintervention	177	MD -0.51 [-1.05, 0.03]	Very Low	Could not differentiate
Attitude dating violence score at 8 weeks postintervention	177	MD -0.06 [-0.40, 0.28]	Very Low	No meaningful effect
Attitude dating violence score at 6 months postintervention	177	MD -0.34 [-0.74, 0.06]	Very Low	Could not differentiate
Rape attitude score at 8 weeks postintervention	177	MD -0.31 [-0.73, 0.11]	Very Low	Could not differentiate
Rape attitude score at 6 months postintervention	177	MD -0.10 [-0.50, 0.30]	Very Low	No meaningful effect
Self-efficacy self-control score at 8 weeks postintervention	177	MD 0.28 [-0.30, 0.86]	Very Low	No meaningful effect
Self-efficacy self-control score at 6 months postintervention	177	MD -0.19 [-0.79, 0.41]	Very Low	Could not differentiate
Self-efficacy communication score at 8 weeks postintervention	177	MD 0.25 [-0.24, 0.74]	Very Low	Could not differentiate
Self-efficacy communication score at 6 months postintervention	177	MD 0.16 [-0.27, 0.59]	Very Low	Could not differentiate
Self-efficacy peer pressure score at 8 weeks postintervention	177	MD 0.18 [-0.37, 0.73]	Very Low	No meaningful effect
Self-efficacy peer pressure score at 6 months postintervention	177	MD 0.20 [-0.26, 0.66]	Very Low	No meaningful effect
Social norms score at 8 weeks postintervention	177	MD 0.34 [-0.09, 0.77]	Very Low	Could not differentiate
Social norms score at 6 months postintervention	177	MD 0.44 [-0.00, 0.88]	Very Low	Could not differentiate
Intention score at 8 weeks postintervention	177	MD 0.27 [-0.20, 0.74]	Very Low	No meaningful effect
Intention score at 6 months postintervention	177	MD 0.01 [-0.52, 0.54]	Very Low	No meaningful effect
Outcome expectancies score at 8 weeks postintervention	177	**MD 0.66 [0.12, 1.20]**	Very Low	Effect favours intervention group but may be less than the MID
Outcome expectancies score at 6 months postintervention	177	MD 0.03 [-0.36, 0.42]	Very Low	No meaningful effect
Self-esteem score at 8 weeks postintervention	177	MD -0.16 [-0.56, 0.24]	Very Low	No meaningful effect
Self-esteem score at 6 months postintervention	177	MD -0.04 [-0.37, 0.29]	Very Low	No meaningful effect

Table 24: Summary GRADE table (Fostering Changes Programme vs Wait list (WL))

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Total problems score at three months postbaseline: assessed using the Strengths and Difficulties Questionnaire (SDQ)	108	MD 0.60 (-2.23 to 3.43)	Very low	Could not differentiate effect
Emotional problems score at three months postbaseline: assessed using the Strengths and Difficulties Questionnaire (SDQ)	108	MD 0.10 (-0.84 to 1.04)	Low	No meaningful effect

Table 25: Summary GRADE table (Fostering Changes Programme vs CAU))

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Carer-reported total difficulties score assessed using Strength and Difficulties Questionnaire at 3 months	240	**MD -2.30 [-4.20, -0.40]**	Low	Effect favours intervention group but may be less than the MID
Carer-reported total difficulties score assessed using Strength and Difficulties Questionnaire at 12 months	229	MD -0.30 [-2.25, 1.65]	Low	Could not differentiate effect
Carer-reported emotional problems score assessed using Strength and Difficulties Questionnaire at 3 months	240	**MD -0.80 [-1.45, -0.15]**	Low	Effect favours intervention group but may be less than the MID
Carer-reported emotional problems score assessed using Strength and Difficulties Questionnaire at 12 months	229	MD -0.20 [-0.79, 0.39]	Moderate	No meaningful difference

Table 26: Summary GRADE table (Incredible Years parent training vs WL)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Child behavioural and emotional problems at 6-month follow up (Eyberg Child Behavior Inventory)	46	MD 10.08 (-10.55 to 30.71)	Very low	Could not differentiate effect
Total strengths and difficulties score at 6-month follow up: strengths and difficulties questionnaire	46	MD -1.61 (-6.01 to 2.79)	Very low	Could not differentiate effect

Table 27: Summary GRADE table (Incredible Years for preschoolers vs Wait List control)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Number of children in need of mental health care provision: assessed by foster carer self-report	33	OR 0.90 [0.23 to 3.58]	Very low	Could not differentiate effect

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Number of children in need of mental health treatment: assessed by foster carer self-report	33	OR 1.43 [0.36 to 5.66]	Very low	Could not differentiate effect

Table 28: Summary GRADE table (ENRICH intervention vs delayed intervention)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Children's physical activity (the 3-Day Physical Activity Recall) - metabolic equivalent (MET) values): mean total METs	261	MD -2.90 [-7.48 to 1.68]	Low	No meaningful effect
Number achieving two or more 30-minute blocks of moderate-to-vigorous physical activity: assessed using the 3-Day Physical Activity Recall (3-DPAR)	261	OR 1.43 [0.36 to 5.66]	Very low	Could not differentiate effect

Table 29: Summary GRADE table (Natural mentoring intervention vs CAU)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Mindfulness score (Mindfulness Attention Awareness Scale) postintervention	17	MD -0.60 (-1.73 to 0.53)	Very low	Could not differentiate effect
Emotional regulation score (Emotional Regulation Questionnaire) postintervention	17	MD 0.58 [-0.10, 1.26]	Very low	Could not differentiate effect
Mental health score (Mental Health Index) postintervention	17	MD -0.30 [-1.48, 0.88]	Very low	Could not differentiate effect
Grit score (12-item Grit Scale) postintervention,	17	MD 0.40 [-0.19, 0.99]	Very low	Could not differentiate effect
Resilience score (12-item Children and Youth Resilience Measure) postintervention	17	MD -0.10 [-0.87, 0.67]	Very low	Could not differentiate effect
Perceived Future Opportunities scale, postintervention	17	MD 0.10 [-0.25, 0.45]	Very low	Could not differentiate effect
Strengths and Difficulties Questionnaire, postintervention	17	MD -0.10 [-0.35, 0.15]	Very low	Could not differentiate effect

Table 30: Summary GRADE table (Staying Connected With Your Teen vs Wait List Control)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Teen report for communication about substance use (author derived measure) at 3 months follow up	60	MD 0.36 [-0.03, 0.75]	Very low	Could not differentiate effect
Caregiver report for communication about substance use (author derived measure) at 3 months follow up	60	MD -0.25 [-0.94, 0.44]	Very low	Could not differentiate effect

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Teen report for communication about sex (author derived measure) at 3 months follow up:	60	MD 0.38 [-0.00, 0.76]	Very low	Could not differentiate effect
Caregiver report for communication about sex (author derived measure) at 3 months follow up:	60	MD -0.20 [-0.82, 0.42]	Very low	Could not differentiate effect
Teen-reported alcohol refusal score (author developed scale) at 3 months follow up:	60	MD 0.04 [-0.12, 0.20]	Very low	Could not differentiate effect

Table 31: Summary GRADE table (Life Story intervention vs Wait List Control)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
PTSD/dissociation mean score (CBCL) at postintervention	15	MD 0.00 (-5.54 to 5.54)	Very low	Could not differentiate effect

Table 32: Summary GRADE table (Mindfulness-based stress reduction vs care as usual)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Self-reported mental health problems score at postintervention (Pediatric Symptom Checklist-17) number with positive total scores	117	OR 0.78 [0.20, 3.11]	Very Low	Could not differentiate effect
Self-report acceptance and mindfulness score at postintervention (the Child Acceptance and Mindfulness Measures)	117	MD 0.60 [-5.47, 6.67]	Low	Could not differentiate effect
Self-reported stress and anxiety mean score at postintervention (the State-Trait Anxiety Inventory for Children (STAIT)	117	MD -2.90 [-9.33, 3.53]	Low	Could not differentiate effect
Self-reported stress and anxiety mean score at postintervention (the State-Trait Anxiety Inventory for Children (STAIS)	117	MD -2.50 [-9.35, 4.35]	Low	Could not differentiate effect

Table 33: Summary GRADE table (Peer Mentoring Intervention vs Care as Usual)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Symptoms of anxiety or depression (scoring >=4 on the General Health Questionnaire) at 12 months post baseline	19	OR 0.83 [0.11, 6.11]	Very low	Could not differentiate effect
Emotional health rated ok or better at 12 months postbaseline	19	OR 1.43 [0.08, 26.90]	Very low	Could not differentiate effect
Self-harm during 12 months postbaseline	19	OR 10.20 [0.47, 222.45]	Very low	Could not differentiate effect
Suicide attempt during 12 months postbaseline	19	OR 2.43 [0.09, 67.57]	Very low	Could not differentiate effect
Self-determination (change in Locus of control) since 12 months postbaseline	19	MD 0.70 (-2.97 to 4.37)	Very low	Could not differentiate effect

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Self-esteem (Self-Esteem Scale) change in self-esteem from 12 months postbaseline	19	MD -2.70 (-7.04 to 1.65)	Very low	Could not differentiate effect
Attitudes to pregnancy: At follow-up, participants were asked to state the youngest age at which they thought it would be all right to have a baby, mean, years	19	MD -0.80 [-2.87, 1.27]	Very low	Could not differentiate effect
Attitude to pregnancy: At follow-up, reported that they would feel happy/excited if they found out they were pregnant now	19	OR 7.00 [0.31, 157.26]	Very low	Could not differentiate effect
Physical health rated OK or better at 12 months postbaseline	19	OR 0.14 [0.01, 3.21]	Very low	Could not differentiate effect
Used at least one substance during 12 months postbaseline:	19	OR 0.95 [0.14, 6.28]	Very low	Could not differentiate effect
Drank alcohol fortnightly or more often during 12 months postbaseline	19	OR 4.00 [0.35, 45.38]	Very low	Could not differentiate effect
Drank six or more units on at least one occasion during 12 months postbaseline	19	1.39 [0.22, 8.92]	Very low	Could not differentiate effect
Anyone raised concerns over drinking during 12 months postbaseline	19	OR 4.47 [0.19, 106.96]	Very low	Could not differentiate effect
Currently smoke regularly 12 months postbaseline	19	OR 1.13 [0.14, 8.99]	Very low	Could not differentiate effect
Healthcare interaction during 12 months postbaseline: seen sexual health practitioner	19	OR 0.72 [0.11, 4.62]	Very low	Could not differentiate effect
Seen doctor more than 6 times during 12 months postbaseline	19	OR 0.13 [0.02, 1.09]	Very low	Could not differentiate effect

Table 34: Summary GRADE table (Therapeutic Playgroups vs CAU)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Foster parent-rated emotional regulation at 2 weeks follow up: assessed by Emotion Regulation Checklist	20	MD -0.03 (-0.20 to 0.14)	Very low	Could not differentiate
Foster parent-rated emotional lability at 2 weeks follow up: assessed by Emotion Regulation Checklist	20	MD -0.14 (-0.34 to 0.06)	Very low	Could not differentiate
Assessor-rated emotional lability at 2 weeks follow up: assessed by Emotion Regulation Checklist	20	MD -0.41 (-0.65 to -0.17)	Very low	Could not differentiate
Teacher-rated emotional regulation at 1 month following the start of school: assessed by Emotion Regulation Checklist	20	MD -0.18 (-0.69 to 0.33)	Very low	Could not differentiate
Teacher-rated emotional lability at 1 month following the start of school:	20	MD 0.22 (-0.26 to 0.70)	Very low	Could not differentiate

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
assessed by Emotion Regulation Checklist				

Table 35: Summary GRADE table (Cognitively Based Compassion Training (CBCT) vs Wait List control)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Depressive symptoms mean score at postintervention (The Quick Inventory of Depressive Symptomatology – Self-Report)	70	MD 0.05 [-3.20, 3.30]	Very Low	Could not differentiate
Anxiety mean score at postintervention (The State-Trait Anxiety Inventory-Trait Subscale)	70	MD -3.41 [-7.58, 0.76]	Very Low	Could not differentiate
Hope mean score at postintervention. (Children's Hope Scale):	70	MD 5.30 [-0.76, 11.36]	Very Low	Could not differentiate
Difficulty with emotional regulation score at postintervention (Difficulties with Emotion Regulation Scale)	70	MD -1.82 [-11.43, 7.79]	Very Low	Could not differentiate
Callous and unemotional traits (Inventory of Callous and Unemotional Traits—Youth Self-Report)	70	MD -0.93 [-5.10, 3.24]	Very Low	Could not differentiate
Positive and negative emotions about self and others mean score at postintervention (Self-Other Four Immeasurables Scale): positive self-score	70	MD 0.07 [-1.61, 1.75]	Very Low	Could not differentiate
Positive and negative emotions about self and others mean score at postintervention (Self-Other Four Immeasurables Scale): negative self-score	70	MD -0.26 [-1.53, 1.01]	Very Low	No meaningful effect
Positive and negative emotions about self and others mean score at postintervention (Self-Other Four Immeasurables Scale): positive others-score	70	MD -0.54 [-2.14, 1.06]	Very Low	Could not differentiate
Positive and negative emotions about self and others mean score at postintervention (Self-Other Four Immeasurables Scale): negative others-score	70	MD 0.24 [-1.11, 1.59]	Very Low	Could not differentiate

Table 36: Summary GRADE table (Motivational Enhancement Therapy vs Care as Usual)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Young person-reported hazardous alcohol intake at 12 months assessed	37	OR 2.40 [0.61, 9.38]	Very Low	Could not differentiate

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
using Alcohol Use Disorder Identification Test (AUDIT)				
Young person-reported use of alcohol at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	37	NE	Very Low	Could not differentiate
Young person-reported use of tobacco at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	37	OR 0.52 [0.08, 3.54]	Very Low	Could not differentiate
Young person-reported use of cannabis at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	37	OR 1.03 [0.25, 4.24]	Very Low	Could not differentiate
Young person-reported use of cocaine at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	37	OR 1.65 [0.44, 6.20]	Very Low	Could not differentiate
Young person-reported use of amphetamine at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	37	OR 3.97 [0.83, 18.91]	Very Low	Could not differentiate
Young person-reported use of sedative at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	37	OR 1.64 [0.40, 6.76]	Very Low	Could not differentiate
Young person-reported use of hallucinogens at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	37	OR 1.23 [0.26, 5.90]	Very Low	Could not differentiate
Young person-reported use of novel psychoactive substance at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	37	OR 1.93 [0.28, 13.16]	Very Low	Could not differentiate
Young person-reported use of opioid at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	37	OR 2.53 [0.21, 30.68]	Very Low	Could not differentiate
Young person-reported use of inhalent at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	37	OR 1.20 [0.15, 9.57]	Very Low	Could not differentiate

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Young person-reported very low or below average score at 12 months assessed using the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)	37	OR 1.63 [0.42, 6.36]	Very Low	Could not differentiate
Young person-reported high or very high score at 12 months assessed using the Strengths and Difficulties Questionnaire (SDQ)	37	OR 2.10 [0.52, 8.51]	Very Low	Could not differentiate
Young person reported severe or extreme problems at 12 months assessed using the EQ-5D-5L (anxiety and depression score)	37	OR 2.77 [0.44, 17.46]	Very Low	Could not differentiate
Young person reported Time-Line Follow Back- Episodes of heavy drinking (>=5 units in 1 day) in the preceding 30-day period	37	OR 0.65 [0.26, 1.62]	Very Low	Could not differentiate

Table 37: Summary GRADE table (Social Behaviour and Network Therapy vs Care as Usual)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Young person-reported hazardous alcohol intake at 12 months assessed using Alcohol Use Disorder Identification Test (AUDIT)	43	OR 0.44 [0.13, 1.52]	Very Low	Could not differentiate
Young person-reported use of alcohol at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	43	NE	Very Low	Could not differentiate
Young person-reported use of tobacco at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	43	OR 0.40 [0.07, 2.34]	Very Low	Could not differentiate
Young person-reported use of cannabis at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	43	OR 0.67 [0.19, 2.38]	Very Low	Could not differentiate
Young person-reported use of cocaine at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	43	OR 0.52 [0.13, 1.99]	Very Low	Could not differentiate
Young person-reported use of amphetamine at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	43	OR 2.48 [0.54, 11.28]	Very Low	Could not differentiate

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Young person-reported use of sedative at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	43	OR 0.63 [0.14, 2.77]	Very Low	Could not differentiate
Young person-reported use of hallucinogens at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	43	OR 0.60 [0.12, 3.08]	Very Low	Could not differentiate
Young person-reported use of novel psychoactive substance at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	43	OR 1.35 [0.20, 9.02]	Very Low	Could not differentiate
Young person-reported use of opioid at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	43	OR 0.86 [0.05, 14.77]	Very Low	Could not differentiate
Young person-reported use of inhalent at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)	43	OR 0.41 [0.03, 4.88]	Very Low	Could not differentiate
Young person-reported very low or below average score at 12 months assessed using the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)	43	OR 1.06 [0.27, 4.19]	Very Low	Could not differentiate
Young person-reported high or very high score at 12 months assessed using the Strengths and Difficulties Questionnaire (SDQ)	43	OR 0.82 [0.22, 3.13]	Very Low	Could not differentiate
Young person reported severe or extreme problems at 12 months assessed using the EQ-5D-5L (anxiety and depression score)	43	OR 1.35 [0.20, 9.02]	Very Low	Could not differentiate
Young person reported Time-Line Follow Back- Episodes of heavy drinking (>=5 units in 1 day) in the preceding 30-day period	43	OR 1.10 [0.44, 2.76]	Very Low	Could not differentiate

Table 38: Summary GRADE table (kContact vs CAU)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Carer-reported strengths and difficulties score at 9 months: measured using the Strengths and Difficulties Questionnaire	123	MD 1.72 [-0.80, 4.24]	Very low	Could not differentiate
Caseworker-reported parent potential for child abuse measured by Brief Child Abuse Potential inventory	123	MD 2.58 [-0.42, 5.58]	Very low	Could not differentiate

Table 39: Summary GRADE table (Mentalisation-based therapy vs CAU)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Foster-carer reported Strengths and Difficulties score at 12 weeks: assessed using the Strengths and Difficulties Questionnaire	36	MD -1.7 (-5.8, 2.4)	Low	Could not differentiate
Foster-carer reported Strengths and Difficulties score at 24 weeks: assessed using the Strengths and Difficulties Questionnaire	36	MD -3.1 (-8.2, 1.9)	Moderate	Could not differentiate
Young person reported Strengths and Difficulties score at 12 weeks: assessed using the Strengths and Difficulties Questionnaire	36	MD 4.9 (-1.0, 10.8)	Very Low	Could not differentiate
Young person reported Strengths and Difficulties score at 24 weeks: assessed using the Strengths and Difficulties Questionnaire	36	MD 4.2 (-0.8, 9.3)	Very Low	Could not differentiate

Table 40: Summary GRADE table (Videogame Intervention (Dojo) vs Treatment as Usual)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Self-reported anxiety (SCAS) at postintervention: assessed using the Spence Children's Anxiety Scale	41	MD -2.23 [-12.80, 8.34]	Very low	Could not differentiate effect
Self-reported anxiety (SCAS) at 4-month follow up: assessed using the Spence Children's Anxiety Scale	41	MD -1.61 [-10.09, 6.87]	Very low	Could not differentiate effect
Mentor-reported anxiety (SCAS) at postintervention: assessed using the Spence Children's Anxiety Scale	41	MD -5.50 [-11.12, 0.12]	Low	Could not differentiate effect
Mentor-reported anxiety (SCAS) at 4-month follow up: assessed using the Spence Children's Anxiety Scale	41	MD 0.22 [-5.95, 6.39]	Very low	Could not differentiate effect

(a) No meaningful difference: crosses line of no effect but not line of MID; Could not differentiate: crosses line of no effect and line of MID; May favour: confidence intervals do not cross line of no effect but cross MID; Favours: confidence intervals do not cross line of no effect or MID

See appendix F for full GRADE tables.

1

Qualitative evidence

Table 41: Summary CERQual table (Experience of looked after children, carers, drug and alcohol workers, and social workers regarding Motivational Enhancement Therapy (MET) and Social Behaviour and Network Therapy (SBNT))

Themes	illustrative quotes	Studies*	CERQual concerns	CERQual explanation
Trust and genuine care: The qualities of trust and genuine care were the two main sub-themes that emerged regarding what underpinned a successful therapeutic relationship. Participants, inclusive of professionals and LAC themselves highlighted the importance of building a therapeutic relationship when working to reduce substance misuse.	No quote was reported to support this theme	**1** Alderson 2019	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Need to earn trust to gain confidence: The LAC's ability to confide in professionals and trust the substance misuse practitioner was a recurrent theme. Whilst trust is recognised as a necessary condition for any caring relationship, it was reported to be particularly important for LAC, whose experiences leading up to their placement in care may have impacted upon their ability to trust others. Professionals acknowledged that LAC often experience disorganised and difficult attachment. This included repeated experiences of their essential needs going unmet, relationship breakdown and abandonment, being let down and broken promises. Professionals displayed a clear understanding of these complex attachment issues and discussed the need to 'earn' trust when engaging with LAC.	*"You need to put in the groundwork initially. I think with teenagers you need to gain their trust, you need to work for it. Because if they have been hurt, which they will have been, they will try to push you away. They won't want to trust you." (Carly, Social worker, focus group)*	**1** Alderson 2019	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

Availability: Practitioners were expected to act in particular ways in order to demonstrate their trustworthiness. Typically this involved the practitioner being reliable; a quality which practitioners reported could be communicated to the LAC in multiple ways within the interaction. One foster carer describes displaying their reliability in terms of being available 24/7, he is permanently 'on call' if a young person needs him.	*"it is not a job because there is no job that makes you work 24 hours a day, 7 days a week and 365 days of the year, but this one does" (James, Foster carer, focus group)*		ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Reliability: Professional and LAC participants reported that the practitioner's reliability must be consistent as any inconsistency is likely to build mistrust.	*"Just by keeping to your word, even little things like keeping your appointments and attending on time, looking into things when you say you're going to…" (Susan, Social Worker, focus group)*	**1** Alderson 2019	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Time for building rapport: From the perspective of LAC, engaging with services depends fundamentally on the relationship between themselves and their allocated worker. To facilitate the sense of a reciprocal trustworthy relationship, young people explained the importance of 'working gradually', wherein at least the first couple of interactions should be dedicated to building a rapport and 'engaging' the young person prior to formal sessions commencing. Additionally, this could be shown by professionals not expecting young people to instantly make disclosures, but allowing a positive working relationship to develop first. Self-disclosures where practitioners 'trade' personal information were perceived to be beneficial to developing a trusting relationship, whereby the process of sharing information was not completely	*"When you work with someone you have to build a bond up first, before you can open up to them…..It's, well the way I've done is just ask questions about them, and then if they tell you, then you know well if they've told me this then I can tell them that" (Sophie,17, YP interview)*	**1** Alderson 2019	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

one sided. Some, examples that young people provided for this were discussing a hobby that the practitioner enjoyed doing or talking about a pet they had. This level of disclosure enable a small 'trade' of personal information to be made without divulging any sensitive personal information. LAC reported that such disclosure enhanced their sense of connection to the practitioner as well as their own safety to disclose information.				
Genuine not contractual care: A further quality that LAC sought but did not always feel that they received was that of 'genuine care'. LAC described having multiple contacts with professionals, with much of the care a child usually receives from a loving family being provided by a professional who is employed to provide such care. The corporate parenting role dictates that safeguarding and risk management take precedent over the provision of emotional support. However, many social workers described going 'above and beyond' their role and being available outside of their contracted working hours in an attempt to show they care for the young people in their care.	*"Myself and his YOT worker had agreed between us that we would have our phones on 24/7. So that if he wanted to get in touch and check in we knew he was okay. So we did, we took turns and he did check in and he did arrange to meet up which was really good" (Steph, Social worker, focus group)*	**1** Alderson 2019	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Importance of genuine care (2): LAC were acutely aware of the corporate parenting role fulfilled by the professionals and highlighted the importance of practitioners (professionals and foster carers) whom made them feel like they 'genuinely' cared about their welfare. Despite being in a paid position to provide care for young people, foster carers reinforced their attempts to provide the same level of care and support to the children and young people they foster/care for in the same way they would treat their own biological children.	*"Any child that comes to live with me, I know they are not mine, however I will work with them, I will play with them, I will live with them and I will do everything to my best ability in every area, in every arena because I want what is best for them." (Liz, foster carer, interview).*	**1** Alderson 2019	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Genuine care and availability (3): For LAC, Genuine care involves professionals 'being available' when needed, showing empathy, perseverance and providing support (emotional and practical) which feels unconditional. For	*"Like Josie talks to me, not like I'm just someone she has to work with, she talks to me like she cares" (Carla, 17, YP interview)*	**1** Alderson 2019	ML: No concerns C: No concerns A: Serious concerns	Only one study contributed to this theme.

the young people, genuine care was described as stemming from personal investment rather than a professional obligation or remuneration.			R: No concerns **Overall:** **Very Low**	
Sensitive and non-judgmental response: From the perspective of LAC, a further way of professionals showing that they cared for a young person was to take a non-judgemental approach and to show unconditional positive regard to the young people under their care regardless of the information they were disclosing. This was reinforced by professionals and foster carers, whom reported LAC disclosing information to them regarding historical experiences. Foster carers described having to respond in a sensitive and non-judgemental way.	*"We had a young man who had been abused by a family member. He was feeling guilty himself about it and thought that we would feel disgusted that things like that had been done. It is letting him see that we are not disgusted. Straight away, I have heard all of this before, you are not the only one. It is not your fault." (Carol, female, foster carer, focus group).* *"…my family is 'f…. up'…really 'f….. up'. And if I sat there and told someone they'd probably run a mile, they probably would. So that's why I've never really opened up to anyone, cause if I did they probably would run away, do you know what I mean?" (Ewan, 17, YP interview)*	**1** Alderson 2019	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Traditional one-to-one counselling style interactions are often unproductive for LACYP: Typically this was experienced as overly formal for LAC who might find this type of interaction difficult to engage with. Young people commented on how they found it harder to participate in 'traditional' formally structured sessions.	*"It was like in a room…and like there's a table there and it had like little seats round, and like, he was just on about things. Do you know, he didn't make it very good, like, he didn't make it very fun and enjoyable kind of thing. It was just like, boring. He was just writing things down that I was saying basically and it just upset me. He just kept on going over it and over it*	**1** Alderson 2019	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

	and over it, he was like "so how did that feel? Bla bla bla." I didn't really feel comfortable" (Isabelle, 13, YP interview)			
Need for therapeutic practitioners to work creatively and use visual strategies. The ability for practitioners to work creatively and use visual strategies such as the 'node-link mapping' used in the International Treatment Effectiveness Project (ITEP) and mood cards whilst staying true to the intervention delivery was deemed a successful strategy to engage LAC. Many LAC wanted other strategies and approaches to be used to help them connect with professionals, maintain concentration and become more involved in sessions.	*"That are notmany young people who you'll get to the point where you're doing that one to one counselling really. It is few and far between. You're being creative…" (Adam, drug and alcohol worker, focus group).* *"Writing it down or doing it like arts and crafts way because I don't like just talking and having conversations cause I just get a bit bored and lose track, then I'll start fiddling about." (Abbie, 18, YP interview)*	**1** Alderson 2019	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Explicit upfront acknowledgement of the complexities of life in the care system when addressing drug and alcohol addiction: A further approach deemed necessary when working with LAC was to explicitly acknowledge the complexities of their life due to them being in the care system. This enables a holistic approach to be taken within sessions. LAC identified it was important that goals did not focus solely around substance use. They valued discussions that recognised the difficulties occurring within their lives and facilitated a personalised approach to be taken to meet their needs. Professionals also clearly identified that a bespoke approach has to be taken.	*"I think what's coming out here is that with the kids we work with, the drug and alcohol issue is over there, if you like, and a whole raft of other issues are here. As workers we're dealing with all of these here and that tends to sort the drug and alcohol issues out quite naturally" (Laura, Drug and alcohol worker, focus group)*	**1** Alderson 2019	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Frequent placement changes resulting in inconsistent and fragmented support networks: Frequent placement changes resulted in inconsistent and	*"So they might, you know, have contact with their brothers or sisters, you know, it is just they get moved around, and when they are*	**1** Alderson 2019	ML: No concerns C: No concerns	Only one study contributed to this theme.

fragmented support networks for LAC. The transient nature of the LAC population can result in young people being eager to find friends even if that results in becoming involved in unhealthy friendships.	*moved around they are vulnerable, they are desperate to have friends or they are desperate to have somebody to call their own…… people get attracted to them who are, I would say, not the type of kids I would want my kids to knock around with" (Liz, foster carer, Interview).*		A: Serious concerns R: No concerns **Overall:** **Very Low**	
Gaps in the social network: The central part that social interaction and support for change plays in any resolution of substance misuse problems. The challenges of finding appropriate network members was explored, in many interviews LAC struggled to identify someone they felt they could turn to, feelings of not having support or the need to be self-sufficient was verbalised;	*"It is quite sad sometimes when they haven't got anybody in the family, not even an uncle or a cousin or somebody who they can put down as a support really" (Steph, social worker, focus group).* *"My boyfriend and his friends, and there's a few of my friends. Actually they've got their own lives as well, they've got their own houses and their partners and they're all settling down as well, so… there's not really many people there. When you think about it though, how many of them can you turn to if you've got a problem? Cause there's not a lot" (Abbie, 18, YP interview).*	**1** Alderson 2019	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Unconventional social support networks: When young people did identify positive support, it was often people outside of the traditional family support network as would be expected within the LAC population. This in itself could be challenging due to the identified sources of support often being professionals whose ability to provide ongoing or out of hours support is not always practical as would be possible from a more traditional family member.	*"There's two main people I've got in my life which provides me with support. One's my boss, he's a farm manager, I work with him most days. Another person is the manager of [name of school], he owns the company and he helps quite a lot by, when I moved out of here the first time, he's the one that*	**1** Alderson 2019	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:**	Only one study contributed to this theme.

	made me come back, and let me get my head back" (Philip, 17, YP interview).		**Very Low**	
Looked after children's inability, at times, to recognize support	No quote was reported to support this theme	**1** Alderson 2019	ML: No concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. The theme did not provide a convincing theoretical explanation (too brief).
In interventions the need to include criteria for a 'network member' was made more flexible to enable less traditional members to engage with sessions and act as a support	No quote was reported to support this theme	**1** Alderson 2019	ML: No concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. The theme did not provide a convincing theoretical explanation (too brief).

Table 42: Summary CERQual table (Experience of residential social workers and youth in residential care using a computer game-based therapeutic intervention)

Themes	illustrative quotes	Studies*	CERQual concerns	CERQual explanation
Acceptable but "not like therapy" Although one young person said that he "hated" the game (Youth 3), the remainder of staff and young people at Long-term I who used the intervention expressed positive views regarding its acceptability, noting only minor dissatisfaction with issues such as the length of time needed for preparation. At Long-term	*"[…] that's a strength of the work too in that the young person wouldn't see it as therapy and theworker wouldn't see it as therapy either. You know sitting down on the sofa and it's not formal at all you know. (RSW1)"*	**1** Aventin 2014	ML: Moderate concerns C: Minor concerns A: Serious concerns R: No concerns	Only one study contributed to this theme. One study at high risk of bias. Interview methods were not made

l, the intervention as a whole was viewed as: "good" (Youth 1) "really good" (Youth 2); "something different", "interesting" (RSW 1); and "fun" (RSW 3). One RSW suggested that one of its major strengths was that it did not appear overtly therapeutic.			**Overall:** **Very low**	explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst. Some contradiction and lack of clarity about what users found to be useful about the intervention.
Not suitable for those who are recently feeling unsettled or those with learning disabilities Shortly after implementation had begun, the Team Leader of the Intensive Support Unit withdrew participation stating that she felt it was not an appropriate time to continue with the study due to an unsettled period relating to a change of young people in the home. She also stated that the intervention was not suitable for the young people who had learning disabilities, with the two RSWs who engaged in one session with these young people saying that the youth had difficulties operating the controls or focusing on the goals of the game.	No quote was reported to support this theme	**1** Aventin 2014	ML: Moderate concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.
Lack of effectiveness of the skills training portion At Long-term II, the participating staff indicated dissatisfaction with the skill coaching component, a perceived lack of fit with the adolescents' needs, and the general lack of motivation to engage on the part of adolescents. The RSW who took part in a post-intervention interview said that while he thought the intervention was novel, he did not find it appropriate for use at the home because he felt the game was not street-wise enough for 'high risk' adolescents and more suitable for younger children. Additionally, he did not consider it to be consistent with	*"I identified some concerns about [Youth 4] and his participation before [implementation] and thought that it wouldn't be right for [his] particular needs. Em, some aspects of that were wrong and some were right. [Youth 4] did engage with it for a prolonged period, but completely at his own determination. He would only do it on his own and wouldn't engage in*	**1** Aventin 2014	ML: Moderate concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation,

the participating young person's (Youth 4) needs.	*the dialogue that would be associated with a sort of more therapeutic response. (RSW 4)"*			respondent validation, or the use of more than one analyst. Unclear what is meant by the intervention not being "street wise" enough. Unclear why the intervention did not fit needs.
Variability of individual engagement Some RSWs at Long-term II felt that the characteristics of the individual adolescents would impact on their engagement. During the training many stated that they did not think their young person would engage easily due to a lack of motivation, lack of interest in computer games or because they would simply not commit to any kind of therapeutic work. They indicated that, even if they did engage, it would not be for an extended period.	*"commitment is an issue for these young people" (RSW5).*	**1** Aventin 2014	ML: Moderate concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.
Engagement only with playing the video game For the adolescents at Long-term I, the game was the intervention and none of them seemed to attach much significance to the social worker's presence or attempts at skill coaching. Two of the three young people expressed generally positive attitudes and said they had found the game educational.	*"R: Would there be anything you'd change about the game or if you could create your own game or that kind of thing would there be anything that you would change or add in to it? Youth 2:No I thought it was all really well put together. I'd use it like. R: Would you? Okay. Could you, 'cause I know you play computer games, would there be any other computer games that you would suggest that would be useful in that same kind of way? Youth 2: I don't think there's any for that kind*	**1** Aventin 2014	ML: Moderate concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.

	of idea at the minute that's actually out. A lot of the ones that are out are like violent and shooting and things like that, which a lot of young people are into and I think we need to change that. I think there needs to be more computer games out which are more interactive for young people rather than just crime and sex and things like that there. I think that should all change like. I think there should be more educational games out." *"R: So overall what did you think of it? Youth 4: It was good. R. It was good? What did you like about it? Youth 4: The way you could do different things, around the house and that. R: Em, anything you didn't like about it? Youth 4: No. [pause 2 secs]. I actually don't. It was good."*			
Difficulty trying to encorporate the skills component Unlike the staff and young people at Long-term I, neither the RSW nor youth at Long-term II found the skill coaching acceptable. RSW 4 said he had to withdraw attempts at communicating with Youth 4 when he became angry. Youth 4 expressed a similar view, suggesting that it was "annoying" to have "someone looking over [his] shoulder" and asking "stupid questions". However, The skill coaching component was deemed acceptable by all staff and young people at Long-term I. One of the pairs (RSW 1 and Youth 2) said they were both comfortable sitting down together and RSW 1 said there was "nothing" hewould change about this aspect of the intervention	*"R: In terms of that first session whenever you tried to incorporate the skills coaching can you just tell me how that worked, or didn't work? RSW4: It didn't work because other than explaining what the game was about and getting frustrated with me…You have to be very subtle with [Youth 4] in terms of how you show an interest. What I was trying to do was sort of, obviously physically get alongside him and ask him to explain the game to me. He very quickly got*	**1** Aventin 2014	ML: Moderate concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.

because it was something they would do together quite often. Youth 2 said RSW 1's presence kept his "mind focused" while Youth 3 indicated satisfaction with his key-workers presence by saying it was a "sound auld job". One RSW thought skill coaching was very much in line with his usual way of working:	*cheesed off with my questions and got angry with my questions and 'f-ed' me off and wouldn't engage further. Em, and refused thereafter to speak to me while he was playing the game.* *"Well as a residential social worker you're constantly working with the young people to get them to sit down in the first place and, you know, to spend time with you. Em, I suppose just direct work skills. (RSW 1) Another of the young people liked the RSW being there because of the technical support he could offer: R: You said you enjoyed the game. What about the fact that [RSW1] was sitting down beside you doing itwith you.What did you think of that? Youth 1: Yeah itwas good because staff use computers so they know what they are doing. R: Uh-huh. Did you ever feel like aww, you know, "I'd just love to be playing by myself"? Youth 1: No."*			Some contradictions in theme.
Other potential uses of the game - diversion and shared activity – An unexpected finding was that, in the long-term units, participants saw the value of the game beyond coaching emotion regulation skills. More specifically, staff saw it as a tool for engaging in one-to-one work with a variety of different goals linked to their perceptions of the current needs of the adolescents and the core function of the units: preparation for life after care through independent living skill coaching and	*"[Youth 1]would generally enjoy the one-to-one attention from staff, so you know, it provided an opportunity to do one-to-onewith, you know, something different, you know, than the usual one-to-one work. (RSW 1) Youth 1 appreciated the intervention as an enjoyable activity for passing the time: R: Em. What did you like most about it?*	**1** Aventin 2014	ML: Moderate concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:**	Only one study contributed to this theme. One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation,

diversion from risk-taking behaviour. Although intended to be used for coaching emotion regulation skills, none of the participants at Long-term I saw this as the game's primary use. Rather, adolescents considered it an enjoyable way of passing the time, a means of spending quality, one-to-one time with their key-worker and (given the 'practical' everyday life tasks involved in the game) as a valuable tool for learning independent living skills. RSWs talked about the intervention as a fun-based, engaging tool for getting to know adolescents; identifying deficits in emotion regulation skills; discussing 'real life' difficulties in a less threatening way; spending quality time with the young person; and engaging them more generally in therapeutic work. One RSW thought that it offered a different tool for engaging in one-to-one work the young person. One RSW thought that the game would be useful for getting to know her key-child who had just recently moved into the unit.	*Youth 1: The game just. It gave me something to do. R: It gave you something to do of an evening type of thing. Is that what you mean? Youth 1: Yeah. R: What would you normally be doing if you weren't playing the game? Youth 1: Sitting around probably. Youth 2 thought the intervention had value as an activity for one-to-one work, because it gave him the opportunity to spend quality time with his key-worker."*		**Very Low**	respondent validation, or the use of more than one analyst. The primary impact of this intervention seemed to be disparate. Some lack of consistency in terms of how the game was beneficial.
Uses for diverting from risk-taking behaviour – At Long-term II, RSW 4 felt the game alone was a useful tool for diverting Youth 4 from risk-taking behaviour. While, on the one hand, the RSW at Long-term II said that he did not think the interventionwas appropriate for older teenagers, he conceded on the other that the game was useful for diverting Youth 4 from risk taking behaviour and that it had served to help him modulate his anger.	*"I mean he's a high risk taker, major high risk taker. He's one of the highest categorieswithin the Trust. There'd be a lot of concern about his behaviours and potential for misadventure or, you know, even disability or fatality in terms of his behaviours. So at least when he was engaging on a regular basis with the game and that did reduce his high risk behaviours."* *"When that game was being played in terms of, the SIMS game, he'd be very very focused on it and he was very calm. He wasn't agitated in any way when he was playing the game. Like Youth 1, Youth 4 saw the main value of the game as*	**1** Aventin 2014	ML: Moderate concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst. The primary impact of this intervention seemed to be disparate. Some lack of consistency in

	an enjoyable way of passing the time, although he agreed with his key-worker that it had reduced his risk-taking behaviour."			terms of how the game was beneficial.
Preparation for independent living? Similarly, another felt it would be useful for teaching his key-child about independent living skills, as he was going to be leaving the unit within the next couple of months. A third RSWthought the game would be useful for learning about the young person's priorities and seeing how patient they were. The four adolescents who took part in post-intervention interviews had different perceptions of the value of the intervention. Unlike the RSWs at Long-term I, both Youth 1 and Youth 2 saw its primary use for getting them to think about independent living skills. Youth 2 felt it gave him insight into what life would be like when he was living independently.	*"It sort of gave me an insight to what I needed to actually do and whatever, whenever I go out into the world." Youth*	**1** Aventin 2014	ML: Moderate concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst. The primary impact of this intervention seemed to be disparate. Some lack of consistency in terms of how the game was beneficial.
Therapeutic impact was through improved relationships – While little therapeutic impact would be expected given the limited exposure to the intervention, and lack of fidelity to the implementation protocol, the RSWs noted its potential for engaging adolescents in therapeutic work and building relationships. Some of the participants felt the intervention had had an impact on the relationship between the social worker and the young person.	*"R: Do you think the intervention had any impact on [Youth 1]? RSW 2: Yes. I think it was useful for his relationship building with RSW 1 who is his co-worker. I was actually surprised at how eager Youth 1 was to do it at times. Both Youth 2 and Youth 1 highlighted another unintended impact, namely increased knowledge of what independent living might be like: R: Okay. Em, do you think, because, you know you said earlier that the*	**1** Aventin 2014	ML: Moderate concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation,

	computer game was good at showing you everyday life, do you think it helped you in any way? Youth 1: Yeah. R: In what way? Youth 1: Like knowing what I'm gonna have to do if I'm goin' about on my own. Like going and buying groceries and paying bills and getting a job. (Youth 1)"			or the use of more than one analyst.
Barriers - Lack of time, inappropriate timing, the volatility of the life space, and the changing needs of the adolescents emerged as core findings Additionally, the characteristics of individual adolescents and RSWs were implicated as barriers to engagement, central amongst which was lack of interest and motivation to engage in therapeutic work. RSW 1 noted that Youth 2 had "a lot going on" in his life at the time of implementation and although they seized opportunities whenever possible, other priorities relating to the youth's imminent move to independent living took precedence. The characteristics of RSWs themselves were mentioned as potential barriers to successful implementation. In particular, RSW 1 noted the importance of whether or not the staff member had a preference for the practical aspects of their work rather than the therapeutic. Additionally, however, RSW 1 indicated that implementation might conflict with the RSW's role of disciplinarian and parent figure. At Long-term II, RSW4 also talked about the disjuncture between the focus and structure of the intervention and current ways of working with Youth 4.	*"If I'm honest it wouldn't have been a huge priority. We would have played as much as we could but there was a lot going on for him the last six months. (RSW1)"* *: "I suppose in general there would be staff here who would be into more therapeutic approaches than others and others would have a more practical outlook on residential so there might be some resistance to that."* *"You know you're living with the young person so in one way you're the person whose imposing sanctions and discipline, you're sort of a parental figure, so they mightn't be able to sit down and open up. (RSW 1)"* *"[We have identified a] need for [Youth 4] to be more deferred in his approach [i.e. to work on deferred gratification]. […] This is what I have identified for [Youth 4] and then the team has signed up to*	**1** Aventin 2014	ML: Moderate concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst. Several barriers worked together leading to the ineffectiveness of this intervention.

	that. But what we have said is we don't use formal sessions.We look for informal opportunities to meet that particular need so that's how we work. (RSW4)"			
Facilitators – RSW3 suggested that supervision, and the inclusion of the intervention as part of the work plan,were essential for successful implementation. She said the researcher's input had kept her focused on the task. At Long-term I, RSW 1 said that successful implementation would depend on the characteristics of the individual young person and their relationship with the key-worker and indicated that the work that could be achieved depended to large degree on Youth 2's mood. At Long-term II, RSW 4 thought the overtly therapeutic focus of the intervention, plus past negative experiences with professionals, were barriers for Youth 4.	*"R: What about if it wasn't part of the research and I wasn't ringing asking how are you getting on and stuff. How do you think it would pan out in the end? RSW 3: Em. I think not a lot would go on. You'd need somebody that's gonna be checking up on you […] You could have it as part of your monthly feedback and you'd have to report that you did something. Because it's, you know yourself, especially in [Long-term I]. You could be coming in and anything could happen."* *"[Youth 4] is very different from a lot of kids. He's a real individual when it comes to it. He's very self-determined. He's very headstrong. He doesn't like authority. He doesn't like therapeutic approaches. I can sort of understand,maybe,where he's coming frombecause he's had therapy to it's coming out of his ears. (RSW4)"*	**1** Aventin 2014	ML: Moderate concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.

Table 43: Summary CERQual table (Experience of looked after adolescents in a secure accommodation facility using a Group-Based Psychosocial Trauma Recovery Program)

Themes	illustrative quotes	Studies*	CERQual concerns	CERQual explanation

What adolescents liked about the intervention: Relaxing (n = 7); All activities (n = 6); Safe place (n = 4); Drawing (n = 2); Tapping (n = 1) Smelling (n = 1) Bad picture to good picture (n = 1) Being in a group (n = 1) Talking about things (n = 1) Comparing feelings then and now (n = 1).	No quote was reported to support this theme	**1** Barron 2017	ML: Minor concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.
What adolescents learned from the intervention: Talking about feelings (n = 2) How to cope (n = 2) If annoyed, breathe and think about something else (n = 2) How to deal with difficult images, to keep them in the past (n = 2) How to put thoughts to the side (n = 2) Hear different points of view (n = 1) Beneficial to talk/not talk about (n = 1)	No quote was reported to support this theme	**1** Barron 2017	ML: Minor concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.

What adolescents found challenging in the intervention: Not like groups (n = 6) Breathing, drawing and safe place (n = 3) Visual imagery (n = 2) Other adolescents' behavior (n = 1)	No quote was reported to support this theme	**1** Barron 2017	ML: Minor concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.
Future direction the adolescents felt the intervention could take: One to one TRT (n = 3) Individual work after group work (n = 1) More sessions (n = 1) Others need to open up more (n = 1) Not so much visualization (n = 1)	No quote was reported to support this theme	**1** Barron 2017	ML: Minor concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.

What the workers liked about the intervention: Valuable contributions from adolescents (n = 27) Individual and group activities (n = 12) Imagery, graded exposure, fear thermometer, safe place, fun (n = 5) Emphasize purpose of the activity (n = 4) Visual materials to aid imagination (n = 4) Small groups & short sessions (n = 3)	No quote was reported to support this theme	**1** Barron 2017	ML: Minor concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.
What the workers felt adolescents learned about through the intervention: Normalization through shared experience (n = 9); Increased sense of control (n = 8); Re-visit learning in units (n = 7); Better understanding of trauma and symptoms (n = 6); Symptoms reduced (n = 4); Range of tools to apply in life (n = 4)	No quote was reported to support this theme	**1** Barron 2017	ML: Minor concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.

What the workers themselves learned about through the intervention: Extent of trauma (n = 10); Recognizing trauma events and symptoms including in reports (n = 9); Trauma lens report writing (n = 6); Trauma recovery strategies (n = 4); Helping agencies recognize trauma (n = 4); Revisiting learning for adolescents (n = 4); Cautious re asking about trauma (n = 3) Embed TRT into practice (n = 3); Trauma not recognized or met (n = 3); Change is not linear (n = 1)	No quote was reported to support this theme	**1** Barron 2017	ML: Minor concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.
What the workers found challenging in delivering the intervention: Adolescent behavior (n = 17); Limited verbal contributions (n = 11); Liaison with care staff (n = 9); Uncertainty of adolescent response (n = 8); Need for follow-up to apply skills (n = 6); TRT delivery needed adapted (n = 5) Adolescents could respond to different activities on different days (n = 4)	No quote was reported to support this theme	**1** Barron 2017	ML: Minor concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.

The future direction the workers felt the intervention could take: Liaising with care staff essential (n = 14); Encourage peer support (n = 10) Fun activites; visual aids and attractive workbook (n = 7) Selection and grouping important (n = 3) Shorter and more frequent sessions (n = 3**)**	No quote was reported to support this theme	**1** Barron 2017	ML: Minor concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.

Table 44: Summary CERQual table (Experience of foster parents and facilitators regarding Incredible Years)

Themes	illustrative quotes	Studies*	CERQual concerns	CERQual explanation
Overall satisfaction with Incredible Years Foster carers were generally satisfied with the programme, enjoyed the experience and gave positive comments about the programme supporting their management and improvement of child behaviour. Particular aspects that were found to be useful included peer support, understanding trauma, the value of play, and skills to encourage positive behaviours.	*No quote was reported to support this theme*	**2** Bywater 2011 Conn 2018	ML: No concerns C: No concerns A: Moderate concerns R: Minor concerns **Overall:** **Very Low**	Studies contributing to this theme were low and high risk of bias. Only 2 studies contributed to this theme. One study was from outside of the UK.
Lengthening the programme to include more content Suggestions to lengthen the programme to 14 weeks to include more on ‘play’ and ‘problem-solving’ sessions given that some	*No quote was reported to support this theme*	**1** Bywater 2011	ML: Serious concerns	This high-risk study did not clearly describe the how

children were perceived as missing basic 'building blocks' from their early social and emotional development because of a lack of personal interactions in their earlier years. Facilitators echoed the carers' recommendations in lengthening the programme to spend more time on play and problem solving.			C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	participants were selected, how interviews were conducted, or how thematic analysis was performed. No triangulation, or respondent validation was used. Unclear if more than one analyst used. Only one study contributed to this theme.
An intervention tailored to foster carers as a unique population Foster carers welcomed the opportunity to attend a parenting programme run specifically for them as a unique population. They felt more able to share their experiences, difficulties and concerns regarding their role, and their relationship with the child they were looking after, in this confidential environment. Facilitators found the programme more challenging to deliver than usual because of the large age range of children under consideration (2–17 years), perhaps more tailoring was neccesary by age.	*No quote was reported to support this theme*	**1** Bywater 2011	ML: Serious concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	This high-risk study did not clearly describe the how participants were selected, how interviews were conducted, or how thematic analysis was performed. No triangulation, or respondent validation was used. Unclear if more than one analyst used. Only one study contributed to this theme.
The need for facilitators to have a greater knowledge of the complex issues and legislation surrounding the care of looked after children Carers suggested programme delivery would benefit from facilitators possessing more knowledge and understanding of the complex issues and legislation governing the care of looked	*No quote was reported to support this theme*	**1** Bywater 2011	ML: Serious concerns C: No concerns A: Serious concerns R: No concerns	This high-risk study did not clearly describe the how participants were selected, how interviews were

after children, especially when discussing appropriate reward systems for looked after children, for example, hugs or financial incentives, may be inappropriate for some children. Facilitators were from a variety of backgrounds with varying degrees of experience of delivering the programme, but all agreed that knowledge of foster caring procedures would be advantageous to delivering the programme to this sample to fully understand arising issues, for example, what is and is not considered acceptable as 'rewards' for looked after children. Facilitators also found the programme more challenging to deliver than usual because the fact that foster carers viewed the programme as additional training for their profession and therefore were more vocal and questioning than parents in general.			**Overall:** **Very Low**	conducted, or how thematic analysis was performed. No triangulation, or respondent validation was used. Unclear if more than one analyst used. Only one study contributed to this theme.
Need for validation - the value of peer support Unique peer support from other foster parents. One general theme that emerged repeatedly within each of the three focus groups was the value of peer support. In fact, this theme emerged so strongly, it may be the most important contributor to foster parents' satisfaction with the intervention, and renewed satisfaction with their role. Foster parenting is a unique and at times difficult role that only other foster parents may truly understand. Several of these foster parents' reported an actual change in their desire to foster as a result of the intervention. In addition to the many benefits from peer support, something deeper seemed to occur that could have a long-term impact on not only the children in their care, but their future as a foster parent.	*"You know the other part of it is that… I personally have a lot of friends and family that support us through being foster parents but none of them are foster parents… none of them have any foster children… they don't have experience with it… so I can't completely, openly talk about issues because they just won't understand… and I understand now why they don't understand… it's because they don't have anything to pull on… they don't have any background. So the support is limited even though they really want to support you and the advice they give is nice but a lot of its nonapplicable to the situation and it's just… it's hard stuff" (foster carer)*	**1** Conn 2018	ML: No concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. Study was from a non-UK country.

	"Yeah…I mean…without the group I wouldn't be here…I would be at my limit… done… no more fostering… no." Tiffany, foster carer. Foster parents also noted the benefit of group meetings in sustaining newly learned skills, as the ongoing support impacted motivation. ""The group was here, so every week, I got some additional support to help keep those things [parenting skills] in place. Not just keep those things in place, but adding something new so that I was able to go home, still keep what I had and then try something in addition to bring about a better and a desired behavior from her. So I'm telling it-it was more than what I ever expected to receive." (foster carer)			
New perspectives understanding trauma Parents noted changes in the way they viewed the children they cared for. For example, many parents reported a clearer understanding of the impact of trauma on child development. Parents believed this new understanding of trauma enabled them to view the needs of the child differently, leading them to value more the importance of just "being a child."	*"It opened up my eyes to… I mean… I knew that… I knew my child was from foster care… I knew that he was from neglect and abuse… and I knew that we had issues to work through. But for some reason… until I started the group… I kinda put those in the back of my head and in the front of my mind was," You're a five year old… act like a five year old." But the group helped me realize well no… I can't look at it that way… I have to realize I'm helping him work through his issues so I don't know… it made me stop and*	**1** Conn 2018	ML: No concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. Study was from a non-UK country.

	rethink where my focus was… and not that I wanted to lower my standards but I kind of needed to… to be an effective parent… foster parent." (foster carer)			
Parents as playmates: new perspectives on the value of play As a result, parents prioritized the Incredible Years skill of "child directed play" and saw great value in implementing the prescribed daily play time. Foster parents' style of play has been permanently altered. Parents typically allow the children to do more of the leading while playing, and direct the child only when they feel it is absolutely necessary. This crucial aspect of the program, while difficult to implement at first, is an aspect that most parents incorporated as a key parenting value that has sustained over time.	*"I think before I was just kind of like, "Oh play… that's something that kids do" and you know… I forgot as well we can't really expect kids to play by themselves as much as most parents do. Just go play… go play… and not engage them first… and also I am coming to that point where I see play as not just a time for the kids to be doing something to keep them busy but for an opportunity to use as a learning tool for everything… for self-regulation… for all kinds of things… how to build their social skills with each other and those types of things. Using play as a helpful tool to develop their personalities and make them better people." (Foster Carer)* *"I mean, before I, took the program I spent time with them, but not as much as I thought that I should have, but just set aside a lot of things in their life because when you go to through the program, a lot of things are identified, and one of the things that we did that I recognized that spending quality time with your children is very important because you really get to*	**1** Conn 2018	ML: No concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. Study was from a non-UK country.

	know what's on their mind and what they're thinking why they're having such behaviors, and you learn how to deal with them." (Foster carer)			
Parents as mechanics - tools for positive parenting Foster parents learned many different skills to build positive behaviors so they would have a toolbox to draw from in any given situation. Foster parents told us they found most of these skills effective, and seeing tangible changes in child behavior is not only a benefit, but also a motivator to continue utilizing the newly learned skills. The foster parenting program impacted foster parents attitudes toward implementing rules, and the skills learned regarding clear rules and limit setting can generally be maintained on a daily basis, over a long period of time- ignore behaviours and they go away - The foster parenting program has helped foster parents effectively ignore their children's' unwanted behaviors, and the use of this technique has led to a decrease in negative behavior in the children that has lasted for a long period of time.	*"We were deep into violent tantrums for months by the time we got into Fostering Futures [Incredible Years program for foster care]…it was a very difficult time when we started the class and it was through the class that helped us learn how to cope and what to do to help him out. And we had success. I mean not 100%, but they were steps that clearly were in the right direction from this class that I contribute to this class solely." (Foster carer)* *. "Before, we were really strict, our expectations were too high, basically. So, we set him up for a lot of failure. And, we have let go of a lot of little things that really don't matter, and that we don't have those battles" (Foster carer)* *"I ignore the behavior and eventually, they stop. Because when I, um, say something, if I say stop, they're gonna continue to do it more. So, that's one of the things that has really changed. I had to learn how to do that, but it works." (Foster carer)*	**1** Conn 2018	ML: No concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. Study was from a non-UK country.

Table 45: Summary CERQual table (experience of foster carers, social workers, and trainers regarding Fostering Changes)

Themes	illustrative quotes	Studies*	CERQual concerns	CERQual explanation
Quality of the training – The majority of foster carer and social worker comments on the trainers were positive, describing their warmth, responsiveness, humour, expertise, knowledge and experience. They valued the quality of the trainers' working relationship with each other and with the group {R4}. Two of the foster carers however felt that at least one of their trainers did not listen to the group and a social worker described how one of their trainers tended to dominate rather than listen. The trainers delivering Fostering Changes (who all had a social work background) felt well prepared by their five-day training in the program but also recognised the necessity of previous experience in group work to maintain the quality of the program.	No quote was reported to support this theme	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall: Very Low**	Only 1 study contributed to this theme.
Training environment The courses were held in a variety of settings such as community centres, local authority or fostering agency offices. Many of the foster carers commented on problems with the venue including access, having to keep the noise down because of other activities in the venue, equipment not being available, last minute changes of room or venue and having a room too small for the group.	No quote was reported to support this theme	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall: Very Low**	Only 1 study contributed to this theme.
Composition of the group – The carer diversity featured regularly in the trainers' reflections, both in terms of promoting implementation but also as a potential barrier. Generally, the trainers and social workers felt that having a mix of levels of experience of fostering was helpful as each carer brought something different to the group. Trainers	*"I think kinship carers, they were benefiting enormously every week. One of these kinship carers are saying, this is so good I have had nothing like this before. And it was hugely beneficial for her and the other foster carers really*	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns R: No concerns	Only 1 study contributed to this theme.

specifically identified the benefits of attending for kinship carers because they had not had a lot of training or exposure to other foster carers. However, in some instances, that meant the training had to be pitched differently due to a lack of background knowledge e.g. kinship carers often having had less training on attachment or raising different issues e.g. kinship family dynamics. Mixing kin carers with other foster carers meant overcoming some barriers of perception at the start but it offered opportunities for reciprocal learning for all foster carers. There were some hesitations expressed by foster carers about the presence of a social worker in the group as they felt it might restrict the discussions. However, it seemed that generally this was positively received by social workers and foster carers as a way of breaking down barriers and moving away from a "them and us" situation, with some wishing social workers from their agency could attend.	*appreciated her input as well. And they were very supportive of her, so I like the mix.[T3]"* *"like some of the ladies were like in the first two sessions oh my gosh, it's a social worker, you know she's a social worker, watch what we're saying"." [FC2].* *"I don't think it really made any difference. I think it gave a bit, er, you know, sometimes you have a bit more of an insight into what they did. …But it didn't sort of intimidate me or anything like that because, um, I think it's good that they were doing it. [FC3]"*		**Overall:** **Very Low**	
Group support The group support was a key positive from the foster carers' reports. The length of the course, giving the group time to get to know each other made a big difference to this sense of community. The mutual understanding and commonalities of experience brought the group together and supported each other through some challenging times, including when the strategies taught do not work.	*"we all, obviously being there in a room full of other foster carers from different agencies and local authorities, they brought a lot of experience with them. So you get to hear a lot of case studies, you get to hear similar problems to your own and you get to hear things that they've attempted [FC62]* *But you know it's good to hear how other people have tried to make it work and you're not the only one if it hasn't worked for you, sort of thing, you know. [FC4]"*	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only 1 study contributed to this theme.
A place of safety Several foster carers referred to the group as a place of safety where they felt they could talk openly without concerns about	*"You felt safe saying things. You felt as though you weren't going to be chastised and given a row and criticised and, you know, and things*	**1** Channon 2020	ML: No concerns C: No concerns	Only 1 study contributed to this theme.

sharing information and also being judged, a theme that was also reflected in the social worker feedback.	*like that because people are … could have their feelings validated and understanding where we were coming from [FC7]* *Everybody talked about the children that they'd looked after. I was able to share things about my life and my work and it was a safe place to share information [SW7]"*		A: Serious concerns R: No concerns **Overall: Very Low**	
Feeling valued by the trainers and the group Foster carers' description of a feeling of recognition from the trainers and the group that they were important as individuals and valued in their role as a foster carer. The experienced foster carers also felt they had something to offer the newer foster carers.	*. "I took away from the training that as a carer I was important... .that I was a linchpin in this child's life and if I didn't function the child didn't function, the system didn't function [FC6]"* *"I looked at myself and I looked around the room and there was people I wanted to be like and take part of them away and there was people and I wanted them to take part of me away [FC7]"*	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall: Very Low**	Only 1 study contributed to this theme.
Consolidating and refreshing knowledge – giving a name to it – For many of the foster carers much of the information in the course was not new but it gave them an opportunity to consolidate what they knew, to give it structure, to provide some evidence and to formalise their knowledge in a way that was helpful. The trainers identified that some foster carers, who already felt that they knew the program content, realised that they had not grasped the concepts properly previously and this course helped them improve and extend their practice:	*"that one kind of brought it altogether and really made you understand more… [FC60]"* *"I think that's a big thing for us is that when we see people grow and we see people who think they know and then they start reflecting and they're actually, maybe they didn't know, or they didn't quite use it, as well as they thought they did.[T1]"*	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall: Very Low**	Only 1 study contributed to this theme.

Home practice - The logic model includes specific activities e.g. giving effective praise, but not the methods by which those activities are achieved. One of the key approaches was that the group were asked to practise implementation between the weekly sessions. The foster carers really valued this continuity from the work in the group to the home practice, then the feedback at the following week's session. This model motivated foster carers to try something different e.g. reducing confrontation, increasing praise, and at times experiencing progress. One foster carer also suggested the practice helped people engage in a more active, personal way, making the course work for them.	*"I think that made you not, not have to participate because you could do the homework or not, but it made you think 'You know, well look, this is what I want to improve on. This is what I want to know about. This is what I want to learn about [FC7].'"*	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall: Very Low**	Only 1 study contributed to this theme.
Confidence building and advocacy Foster carers referred to the positive impact of the course on their confidence in their actions, affirming that what they themselves thought was good practice was also viewed that way by others. This was not just in relation to behaviour management but also confidence to deal with the wider system, including being more confident taking on an advocacy role for their foster child. The confidence-building impact of the course was also identified by the social workers.	*"“the one thing that did stick out for me was advocating for the child, like not to be scared, advocate for what the child wants, and stand by what they want, and not what the social worker wants you to do, or the family want to do.” [FC2]"* *"I think part of that has been evidenced by, like I say, a small number of our carers actually turning round to our psychologist and saying actually can you give us some time to put this into practice because we're feeling quite confident with this now. [SW11]"*	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall: Very Low**	Only 1 study contributed to this theme.
Change in approach - The content of the course encouraged taking a more understanding, less confrontational approach and many of the foster carers described having learned new ways of dealing with behaviours and situations, including praise and distraction.	*"I think overall, it's made me stop and think more, before you do something, or maybe react to something. Because sometimes you're like, if you're busy and you think oh my God, you know, look what's going on here now, what's*	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns R: No concerns	Only 1 study contributed to this theme.

	… but sometimes it makes you stop and think hang on a minute now, you know, let's play this down a bit now, and then like think about what the child is thinking [FC2]"		**Overall: Very Low**	
Barriers to positive impact There were two themes in the foster carers' experience of the course that could be barriers to the effectiveness of the training in bringing about change. Both related to a perceived poor fit between the foster carers' needs and what the course offered: One in terms of the pitch of the information and the other to what foster carers experienced as an inadequate response from trainers to foster carers trying to manage particularly challenging behaviour. Pitch - simplicity of information - Some of the foster carers and social workers felt that the information provided was too basic, reflecting things foster carers already know and not always adequate in the face of the challenges they were experiencing. One foster carer reflected this in suggesting that there needed to be two levels of course, for the new and for the more experienced foster carers. One social worker identified that the simplicity could potentially be helpful. The trainers were concerned when those who have been fostering for a while might identify the content as simple and feel they have nothing to learn. As well as describing the information as basic, many felt that the strategies were suited to younger children and that by having foster carers of mixed age groups, the pitch was inevitably too simplistic to cover everyone's situation. However, it was also acknowledged that most foster carers will be caring for children of different ages so the mix might be appropriate in that context and also, as identified by a social worker attendee, there is often a difference between the child's chronological and	*"I did feel at times that … I did feel it was teaching me to suck eggs because it wasn't advertised as a course for, um, new foster carers and I feel, er, that actually the course is much better for inexperienced and new foster carers [FC3]"* *"I think because of the complexity of the behaviours and things, er, that the carers are having at the moment…I don't think they're going to go and think, oh yeah, this is what we need. [SW8]".* *"It's not been, I think it's a lot more simple than I was expecting, I think I was expecting techniques to manage bigger issues, if that makes sense….however when you listen to the feedback, it's surprising how the little sort of basic things can make a difference so it's not necessarily a negative thing.. .It's sort of, it's sort of just stripping back the basics which, you know, I think people might lose sight of that sometimes when they're dealing with bigger things.[SW8]".*	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall: Very Low**	Only 1 study contributed to this theme.

developmental age so their functioning also needs to be taken into account. Glossing over - One foster carer spoke very passionately about the fact that the course was not meeting the needs of those dealing with very challenging behaviours at home: As well as the information being too basic, the extent of the challenge was not acknowledged by the trainers and their difficulties glossed over:	*"That sometimes is the saddest thing because whenever people say, "Well, I know all this already", I just automatically get a little bit worried about their own development, really".[T4]* *"… they would have been better off to say right we'll have foster carers with children from nine or from ten to sixteen and then from zero to seven. They needed to split it up. … it was very difficult for the guys to put information across that dealt with everybody's needs, so it was a very quick snip onto that … and a quick snip onto this because they were covering such a wide range of age. [FC53]"* *"I would say there was four or five of us who had children with very extreme behaviour and they just … they either refused to acknowledge it was as bad as it was or they just glossed over it. Or they just gave up….[FC59]"*			
Relationships between foster carers and the agency – The descriptions of the foster carers' relationships with the fostering agency really varied. A few described an excellent working relationship. Many reported that the social workers were often overstretched, lacking experience and cutbacks had meant the service was stretched to the limit, including inadequate levels of support and supervision for foster carers. One foster carer felt blamed by the agency, that there was an imbalance of power and lack of mutuality.	*"The staff, you know, are under a lot of pressure and that negativity does, does impact and it does go down the chain and through the carers, which I think is a huge shame.[FC55]"* *"But social services always just cover their backsides, that's all they ever do, all they ever do. Then, and*	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall: Very Low**	Only 1 study contributed to this theme.

	then the mire slides doesn't it, er, they'll blame the person at the bottom of the heap, not the person at the top and I, I always get the blame [FC51]"			
Perceived value of training - Training is a key point of contact between the foster carers and the agency. The foster carer reports of training act as a touchstone for their view of their role and how they feel the agency treats them. For those who want to be regarded as part of the professional team, there is a sense of frustration at the lack of emphasis on training and a lack of accountability for those who are not attending even for mandatory training. For others they feel their natural parenting skills were good enough so training is not necessary. The way some agencies managed training generally (not Fostering Changes) made it seem to foster carers that their training was not valued e.g. trainers not turning up, inexperienced trainers, sessions being cancelled at the last minute, lack of information and practical things like no venue or refreshments leaves foster carers who have made the effort, feel unappreciated. Social workers were aware of the amount of work that often had to go into engaging carers with training: The trainers talked about the complexity of recruiting foster carers for group work like Fostering Changes with a specific target number and eligibility criteria. The challenges included competing demands within the Local Authority/Fostering agency team but also misinformation from the agency to the foster carers about Fostering Changes, including practical things like start times, number of sessions and the reason for them to go, ranging from a punitive re-education to a much more positive celebration of their skills.	*"I've been to a few [training events] recently where they've been cancelled and we've already been all sat there, you know rearranged days and things. So I don't think it's er valued as much I think. If it was a room full of, you know nurses or doctors or teachers, the trainers wouldn't dare not turn up. And I think that sometimes happens [FC50]"* *"So it's chivvying, social workers chivvying foster carers up and trying to gain that, err buy in for them and that's difficult on an ongoing basis. [SW10]"* *"It […] very much varies, some of the conversations are really in-depth, the carers come on the course, have a real insight into what they're coming to, some of them it feels that they need numbers for a course and they just hurl people at the course, and they haven't a clue. [T1]"* *"They said to us that they felt like they'd been told "If you're having problems with fostering, you need to go and get some more*	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only 1 study contributed to this theme.

	information and be better." And that they were made to feel that you go on this course because you were rubbish, is basically what they were saying. [T5]"			

Table 46: Summary CERQual table (Experience of carers undertaking Treatment Foster Care)

Themes	illustrative quotes	Studies*	CERQual concerns	CERQual explanation
Parent vs. Treatment Provider – Several experts commented on the challenges TFC parents face in balancing their role as a caregiver with the expectation to be a professional. In treatment foster care, the experts emphasized how the TFC parent is responsible for creating an environment that provides a therapeutic experience for youth. Although the TFC parent may not have a clinical education or license, several experts expressed that "TFC parents are the ones who create the change." Youth in a treatment foster care placement may also be receiving therapy outside the home, but "the foster family is the agent of treatment, not therapy from the outside." The home setting itself is intended to be transformative. Although many TFC parents have experience and competence with parenting, this is no guarantee that they will be effective as a TFC parent. This tension between being a caregiver and being a treatment provider is not just about different competencies but also about embracing this expanded role.	*"TFC foster parents must be able to walk the line of being a treatment professional and being a caregiver: connect to kids in a positive way but also follow a treatment plan and implement good interventions." Expert* *"TFC foster parents as the therapeutic component should be seen as 'the key' action in the model. The therapists are important, but the foster parents are the key with their day-to-day interaction that is of optimal importance." Expert* *"It's a different relationship and different skill set than parenting your own children," expressed one expert. Because of the professional expectations, the TFC parenting role requires more than just parenting expertise. This includes being "…willing to take supervision– not just insist on doing things the way they did with their own kids." Expert*	**1** **Lee 2020**	ML: No concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study was from the USA.

Teamwork - Parent Expertise vs Worker Expertise As TFC parents are empowered to have larger roles as experts of the youth in their home, they may struggle to collaborate effectively with their TFC social worker. One of the workforce dynamics commonly found in TFC agencies is that TFC parents may have more life and parenting experience while TFC social workers may have more formal training and education in treatment approaches. The different types of expertise is not just a problem for the TFC parents. For TFC social workers, playing a supervisory or coaching role with experienced TFC parents can be intimidating. This tension may inhibit the social worker from providing validation to the TFC parent's role as a treatment provider. To manage this tension, the experts offered several ideas. Operating from the perspective of a strengths-based partnership was one suggestion. Recognizing that each type of expertise can have value and contribute towards the family's success is key. TFC foster parents across groups repeatedly emphasized the importance of developing strong care teams founded on relationships built of mutual respect and characterized by consistent, clear communication. Participants who expressed satisfaction with their care team were positive about their roles. They felt included in decision-making around their child and were routinely kept abreast of important information. The importance of respect, engagement, and clear communication was also evident in TFC	*As one expert described, "Workers who have less experience than the foster parent is an issue because they are often young and they have no information and no history of the foster child." Expert* *"Staff don't have the skill or background, which is frustrating for the foster parents. TFC social workers really can't help them… and then TFC parents don't get the help they need." Expert* *"Sometimes the least experienced staff are doing the most challenging role: overseeing someone older with more life and parenting experience. There are a lot of barriers there." Expert* *"How can you look at strengths of a worker and strengths of the TFC family and how you can partner together?" Expert* *"If there is a good working relationship [between the TFC parent and their social worker], then they will work better…. If it is one of mutual respect, they will work well together. They need to be respectful of each other's experience and prior roles as we inch them closer to doing something different." Expert* *"The worker and the sociotherapist [work together] so I won't be bombarded with different people at my house every day. Try to come at the same time. We have a good relationship. They come, they laugh, sometimes they spend more time than they are supposed to, cause we're joking around. Then we get down to the point. We write down everything, makes sure everyone understands, including the child. [She]*	**2** **Lee 2020** **Tullberg 2019**	ML: No concerns C: No concerns A: Moderate concerns R: Minor concerns **Overall:** **Very Low**	Only 2 studies contributed to this theme. Study was from the USA.

foster parents' relationships with clinicians, and their belief in the efficacy in mental health treatment overall.	*writes down everything that is expected of the child [and everyone gets a copy]." 'Good' caseworkers embraced TFC foster parents as part of the team and valued "work[ing] together." - Treatment Foster Carer*			
Treatment foster carers need to know how to: • Be advocates – including in education, medical, and behavioral health services. Bringing their unique perspectives. • Have systems knowledge – of both the child wefare system and behavioural health system so as to know how to navigate this care. • Managing challenging behaviours Parenting youth with emotional and behavioural issues requires specialized skills. The experts noted that TFC parents should have the capacity to identify when a youth may require clinical care	*"TFC parents should be the voice for the youth." Expert* *""Foster parents need to be assertive when working with professionals within various systems because they are the child's primary advocate; TFC parents know the child more than anyone. Because they know the child better than anyone else, they can talk about what that child needs and is experiencing." Expert* *"Understanding the system is really important…. It would be really helpful for caregivers to know the system in their state, how things are funded, and what each system's role is to the child." This includes knowing "how do you get access to services? What if you don't think the services are helping? What else is out there?" Expert* *"recognize mental health problems, especially if that child needs a referral. Foster children benefit if the TFC parent has a basic awareness of when a kid is having a behavioural or mental health problem." Expert* *"Knowing about adverse childhood experiences and how trauma can affect long-term health, but that you can intervene and that reinforces the need for mental health services. This helps parents better understand and cope with some of the behaviours." Expert*	**2** **Lee 2020** **Tullberg 2019**	ML: No concerns C: No concerns A: Moderate concerns R: Minor concerns **Overall:** **Very Low**	Only 2 studies contributed to this theme. Study was from the USA.

	"as a TFC parent, a common occurrence is getting your buttons pushed (foster parents reacting to kids instead of being proactive and stepping back, walking away and gaining control). … If foster parents can learn how to not react in the moment, how to take care of themselves and how to model that for our kids, that's huge."			
Preferences for training for TFC Experiential Training - Universally, the experts encouraged hands-on learning opportunities during training for TFC parents. One TFC expert recommended to "do a lot of experiential pieces in the training: practicing and role play. Keep it very behavioural." Another expert suggested, "giving them a skill, having them practice in class, and then work with the kids at home." As summarized by one expert: "the more interactive, the better." The experts seemed to agree that a single training event without follow-up would have little impact. This ongoing skill building could be in the form of a coach that could provide follow-up consultation and refining of skill development.	*"A lot of families are not oriented to academic learning. It's great to give foundational information, but it has to be operationalized." - Expert* *As one expert noted, "Follow-up to training is what is most important. Once a parent has a child in their home they utilize the training and tailor it to the child they are working with. Training is only as good as the follow-up and support." – Expert* *"Biggest support (to provide TFC parents) is coaching… This is more important than the training… Coaches who they can call in the moment could be really helpful." Another expert reinforced this sentiment by concluding that "ongoing coaching is what really changes practice." – Expert*	**2** **Lee 2020** **Tullberg 2019**	ML: No concerns C: No concerns A: Moderate concerns R: Minor concerns **Overall:** **Very Low**	Only 2 studies contributed to this theme. Study was from the USA.
Peer Support The experts emphasized the value of engaging other TFC parents in training and supporting TFC parents who are newer to the role or struggling. Learning from other parents was viewed as both credible and encouraging for TFC parents. The benefits were attributed to not just the recipient, but also for the experienced TFC parent who is	*"We used to have all training done by professionals. Now, we have parent trainers. This has been an incredible piece of our success. Parent voice to other parents is so important." - Expert and TFC provider noted* *"There is a lot of learning that happens in peer-to-peer interaction. It's important to know the things you are experiencing are similar for other*	**2** **Lee 2020** **Tullberg 2019**	ML: No concerns C: No concerns A: Moderate concerns R: Minor concerns	Only 2 studies contributed to this theme. Study was from the USA.

able to exercise this leadership and service.	*people. Peer interaction offers support, normalization, and behavioural strategies to figure out how to be positive with the kid most of the time." – Expert* *"TFC parents are willing to be mentors and it's a real validation to them and a way they can share their competencies." – Expert*		**Overall:** **Very Low**	
Destabilising staff turnover Consistent across all groups were reports of frequent and, sometimes, destabilizing transitions in the form of staff turnover or staff changing positions within their agency. As a result, participants widely agreed that strategies for managing transitions should be included as part of staff and foster parent training, and that additional resources— both for children and for treatment foster carers —were needed during periods of change. Concerns about staff transitions focused primarily on the impact of transitions on the mental health of children; "every time you turn around they are changing caseworkers on them … and then they feel like they just tired of them." Participants emphasized the toll repeated transitions could take their children, but most said agencies did not prepare them adequately for changes. More than one participant reported addressing transitions by telling their child to focus more on the stability of their (parent-child) relationship than the one with his/her caseworker. Participants agreed that more structured, consistent communication and support was needed around caseworker transitions—for everyone involved. At the very least,	"[Describing the child's questions:] "Why would they change my therapist, I love her … Are you and poppa going to leave me too?" "It bothered him. He was like; 'This is my third worker in six months.' So it really, really done something to him. He was really close with this worker and I don't think it's fair for the children. Kids have to get used to a new worker all over again … get adjusted … and that kind of angers them too … different foster home, new caseworker … no stability … because of what they been through." - TFC	**1** **Tullberg 2019**	ML: No concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study was from the USA.

participants wanted to be informed in advance of impending departures, and, if possible, given the opportunity to meet with both workers, to facilitate transitions				
Need for emotional support in times of conflict In most of the groups, TFC foster parents described situations in which they felt staff members did not support them when there was conflict with a child in their care; at times staff were described as siding with the child during such conflicts, and at other times they were described as being absent and unsupportive. TFC foster parents who felt supported by their agency during periods of conflict described the things their agency did to make it easier for them to maintain difficult placements. One TFC foster parent said her agency did "everything" from setting up needed appointments with therapists "right away for the child" to picking up things at school. She reflected: "I feel like they are there for me … it's really important because sometimes you feel overwhelming … some kids, you feel like, 'what am I going to do?' – but you have phone numbers for everything."	*"The worker gets to be friendly with the kids and they don't care about what you going through … cause they only see the kid for 10 minutes, 15 minutes, an hour at most … we have the kid all day … when they see the kid, the kid telling them this and that, that's not true – that is not true. [Another participant comments "There's two sides to the story."]" - TFC* *"When I first came to the agency, I was new at foster care period… The older workers, the ones that been here for years … they know how to play, how to write the notes, to say that they've been to your house when they haven't been… so they was telling me they didn't have to come as long as [the behaviour specialist] was coming, they didn't have to come and we ran into a lot of friction because a lot of stuff was going wrong in the home and I didn't know what to do because I was new to it … I was talking to the behaviour specialist at the time, she really helped me and got me through it … really guided me through the process" TFC*	**1** **Tullberg 2019**	ML: No concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study was from the USA.
Trial period, importance of suitability of placements: Getting acquainted - visits to ensure suitability - Opportunities to become acquainted and begin building a relationship were often valued by TFC parents. The visits were helpful not just to assess the match between the youth and foster parents, but also to observe other family dynamics the youth would be joining. Some TFC parents had to consider how a	*"I think it's important to have a day visit and a weekend visit before you make your final decision." – treatment foster carer* *Another TFC parent said that she knew from the visit that the placement would be successful "He came right in and blended right in with the family. It was like he was part of the family and I liked that."*	**2** Castellanos-Brown 2010 Tullberg 2019	ML: No concerns C: No concerns A: Moderate concerns R: Minor concerns **Overall:**	Only 2 studies contributed to this theme. Study were from the USA.

new foster youth would adjust with other youth in the home. Incorporating the foster youth into the family was mentioned by various TFC parents as being an important consideration when deciding whether to accept a youth into their care.	*"When I do that one visit, I have my daughter around; she's very involved. She's in and out of here all the time. So if I'm going to have a [youth] visit, I make sure that she and her family will be here to see how they connect." – TF Carer* *"Me and another foster child that I had, the three of us went on an outing and I just wanted to get a general idea about their relationship….That's important, too, to include the other child if you have more than one child in the home." TF Carer*		**Very Low**	
Feeling rushed to make a decision, the transition process into the home - Timing. Some TFC parents expressed feeling rushed by the transition process of a youth being placed in their home. There seemed to be a push/pull between child welfare policies that emphasize youth living in family settings and the desire for TFC parents to feel adequately informed and prepared to receive the child. TFC parents recognize the pressures within the system even when there is some lead time for placements. Indeed, there was not a clear relationship between the amount of time involved in the transition and the experience of feeling rushed. Some TFC parents who received youth within hours of first being notified about the youth did not express any concerns about the timing, while other TFC parents who had a week or more to weigh the decision mentioned that the process seemed "real quick." This finding suggests that TFC parents differ on the amount of time they feel is needed to prepare for the transition.	*"Man, it was quick. It was very quick because his time at the diagnostic center was almost up, so they kind of moved kind of quickly on the process because he didn't have no place to go. He was going to leave [the short-term center] and end up at a group home or some place like that." – TF Carer* *"We got a call that day, they wanted them placed that day, which we know is the nature of the beast. So you are trying to make a decision really quick and you are trying to ask questions and you are asking a team of people who may not know the information. I'm asking questions, I've got to call my husband, transfer all that, write all that down, and even talk to our kids here because it's a team here." - TF Carer* *""The agencies do the best that they can, but there's only so much they can do.…The way they are set up, you can only have so many visits and you have to make a decision—am I gonna take the child or not? Because they have to get these children into a home. That's the thing, they have to try to get them in a normal home environment." – TF Carer*	**1** Castellanos-Brown 2010	ML: No concerns C: Minor concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK. There was not a clear relationship between the amount of time on the run up to the placement and how "rushed" the foster parent felt. Therefore, it was unclear what exactly led to the feeling of being rushed.

The need for information prior to placement. information gathering – feeling that information may be withheld. TFC parents used a variety of methods to gather information for making a decision about whether or not to accept a youth into their home. Some TFC parents reported asking the caseworker many questions about the youth or reading the youth's records, in addition to meeting and visiting. Other respondents seemed to require little information to make the decision to accept a youth. TFC parents also recognized the pitfalls of over-reliance on a youth's records or previous history. When TFC parents were asked what types of information they wanted about a youth they were considering accepting into their home, they mentioned characteristics related to the youth's behaviours, their background, and family experiences. Certain problem behaviours were frequently mentioned as important factors in assessing their willingness to foster a youth. Several TFC parents specifically mentioned they wanted to know whether the child had been a "firesetter," was "violent," and if they acted out sexually. Other less commonly reported issues that were mentioned as important to consider included being pregnant, lying, stealing, running away, and anger management issues. At times, TFC parents reported not receiving information they wanted about the youth. For example, 1 TFC parent reported learning that a child had a bedwetting problem that was not disclosed prior to placement. Another TFC parent said of a youth with attention deficit	*"Oh, when I look at the chart. To me, the chart is everything…I don't accept [a child] without the chart because I don't want to be surprised." – TF Carer* *"I ask questions if I don't get enough information. I want to know more extensively about the child's behaviour. That way that will give me a general idea as to know whether I want to parent that child or if I'm competent enough to parent that child." – TF Carer* *"I just work with what I have. Because there's no way you can tell that by looking at a person or meeting them the first time and I don't think that's giving a person a real chance. Just to meet them and not really…you know, it takes time to get to know a person and they unfold themselves like an onion." - TF Carer* *"I try not to judge the child by the info they give you. Sometimes they just need a chance….You just have to let them come in and give them a chance and find out for yourself. Is this child really all that's written on paper?" – TF Carer* *"A lot of things were not in her chart and I don't think [the agency] knew. She played with fire, she's having sex. That was not in her chart." – TF Carer* *"A lot of information, if [the state child welfare system] doesn't disclose to [the placement agency] right away, then we don't know about it." – TF Carer* *"I feel like most times, it's a 'don't ask, don't tell' situation." One TFC parent said, "It seems like*	**3** Castellanos-Brown 2010 Lee 2020 Tullberg 2019	ML: No concerns C: Minor concerns A: Minor R: Minor concerns **Overall:** **Very Low**	Only 3 studies contributed to this theme. Studies were from the USA. There was a distinction between the ideas that foster carers would have preferred more information and the suspicion that information was deliberately being withheld.

issues: "I didn't know that he had it or anything about it." Other types of information not received were explanations of why previous placements had disrupted or a youth's involvement in sexual activities. TFC parents had different explanations for why information they wanted was not received. In some situations, the information may not have been available in a youth's record or may not have ever been reported previously. Other TFC parents suspected that the placement social worker purposely withheld information from them because they wanted the child placed.	*they just kinda gave me fluff stuff." Another said, "I can understand, too, because sometimes they may want to place a child in an emergency and they don't want to disclose certain information because you look at this so-called innocent child and you want this child placed, but that's not the right way to do things."* *"Some percentage is that they don't have it; another percentage is that they don't want to share it; and another might be, what, I don't know, who knows." – TF Carer*			
Resource needs of youngsters arriving for TFC. clothing and personal items TFC parents seemed prepared to provide personal care items for youth as needed, but often found that youth also needed new clothes. Suggestions for improving the adequacy of clothing included receiving a clothing grant when a child is placed (N = 5). Several TFC parents commented on how they took ownership of their youth's appearance. Providing for the youth's clothing needs seemed to make a positive impression on the youth. However, TFC parents were sometimes reluctant to invest so substantially in a youth newly-placed in their home.	*"And what she came with was like rags," "Underwear too small, pants raggedy," "They usually have about 2 or 3 pair of underwear that's too small, the socks are really dirty if they have matching pairs, which is almost never. They have no hair supplies, no bath stuff. They usually don't have no haircut, no adequate shoes, no kind of toiletries. One child, she didn't have no jacket." – TF Carer* *"I'm really particular about what they wear and how they look. I took all the stuff she had and threw it in the trash pretty much because you are a representation of me….So if they come and their clothes are not adequate with me, then I don't let them wear that stuff." – TF Carer* *"The child was wearing small clothes and nobody could see it but me. So I went out to Marshalls and I spent $300. I'll never forget that. That night, before he went to school, I bought him all new clothes and automatically, that child loved me." – TF Carer*	**1** Castellanos-Brown 2010	ML: No concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK.

	"That was very unfair to me. I didn't think it was fair because what happens if this child doesn't work out well in my home….I had to go out and buy him an entire wardrobe—from inside to outside and a haircut. But everything turned out okay." – TF Carer			
Issues transitioning youth to school Some TFC parents reported issues transitioning youth from their previous school to their new school e.g. difficulties getting registered. Others reported no problems in that transition.	*"It took me almost a month to get her registered in school. Seems like [the agency] should have gotten all that and passed that package with the child, but it seems like [the agency] and the city couldn't get their handshake together, so that was the hang-up there." – TF Carer* *"It was pretty smooth. They didn't miss any school at all." – TF Carer*	**1** Castellanos-Brown 2010	ML: No concerns C: Minor concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK. Unclear why some carers experienced problems while others did not.
Straightforward transition to new mental health, dental, and medical providers - mental health services transitions – In this TFC program, all youth were expected to receive weekly outpatient therapy. Transitioning youth to new mental health providers was made easier for most TFC parents because this agency's workers provide referrals to providers near the TFC home. The TFC parents also appreciated being able to choose the therapist they wanted to work with. Medical and dental services seemed equally straightforward. A TFC parent could have their caseworker transfer a youth's files to a provider of the parent's choice or the caseworker would help identify possible local providers. TFC parents reported few difficulties in logistics regarding securing services for youth in their home. TFC parents who were less	*"He had to go to a different therapist. I looked around in the neighborhood to find something that was close. So we go to [community mental health] center. As soon as he got here to the house, he started going to therapy." – TF Carer* *"Usually we transfer them. Like I transfer all my kids to where I usually take all my kids. It's the same therapist. We know each other and we have a good rapport." – TF Carer*	**2** Castellanos-Brown 2010 Tullberg 2019	ML: No concerns C: No concerns A: Moderate concerns R: Minor concerns **Overall:** **Very Low**	Only 2 studies contributed to this theme. Studies were from the USA.

experienced reported greater reliance on their caseworkers for help in navigating the process of getting settled, whereas more senior TFC parents knew the ropes well. Overall, TFC parents seemed satisfied with the quality of auxiliary services their youth received**.**				
Agency support in getting settled – good supportive relationships, training, respite, and referrals. The strengths of the program identified by TFC parents may have facilitated the getting acquainted stage of the transition process. These strengths highlighted various supports that were mentioned as being helpful to TFC parents. Eight TFC parents mentioned they had a good relationship with their TFC worker. Training was mentioned by 5 TFC parents as being a beneficial source of support. Respite was mentioned twice and referrals were mentioned by 1 TFC parent. Six mentioned the staff, counselors, or social workers at this agency were strengths.	*"I have an excellent worker, the intake lady was excellent," – TF Carer* *"Lately, I've been having some really great social workers." – TF Carer* *"good job in communication and in supporting the parents. I know they are constantly trying to develop more support for the foster parents to help them when they got children that is getting into some problems and they do have some things that they can work with." – TF Carer*	**2** Castellanos-Brown 2010 Tullberg 2019	ML: No concerns C: Minor concerns A: Moderate concerns R: Minor concerns **Overall:** **Very Low**	Only 2 studies contributed to this theme. Studies were from the USA. Several distinct aspects of the support that foster carers found to be helpful was outlined here.
Adjustment to the idea of family life. Youth transitioning from group care settings are adjusting not only to their foster family, but also sometimes to family life in general. Some youth seemed to lack experiences that are common in most families. For example, 1 TFC parent recalled having a youth in her home who admitted never before having a set bedtime. Another TFC parent was surprised by a youth's dietary habits. A TFC mother described her efforts to treat her foster youth similarly to how she treated her biological children as a "mainstreaming" process.	*"One girl I had, she was eating out of a can. I told her you're not supposed to eat out of a can and she got so ashamed." – TF Carer* *"If he stays on task and graduates and makes me proud of him, I will give him a party in the backyard….See, I did that for my kids, so it's like mainstreaming him." TF Carer*	**1** Castellanos-Brown 2010	ML: No concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK.

Reasons for breakdown. When youth coming from group care or other settings transition to TFC, struggles in the transition can lead to placement disruptions. More than half of the respondents had experienced at least one disruption of a child leaving their home. Reasons cited for disruptions included lying, running away, skipping school, stealing, and sexual behaviors. From the descriptions provided by TFC parents, disruptions often occurred after an increasing build-up of problems over time. For example, being thrown out of school, or stealing. As youth problems escalated or maintained at high levels of intensity, TFC parents seemed to reach a breaking point.	*"She was constantly being thrown out of school, so that was a constant. School started in August and by September she had been thrown out of school like 6 times. And I told her I couldn't keep going to the school like that…I have to work, too…so they found her another placement." – TF Carer* *"She steals everything that isn't nailed down and after a while I just got sick of it. Having to go get something or going to wear something and it not be there anymore. I just couldn't tolerate it anymore." – TF Carer*	**1** Castellanos-Brown 2010	ML: No concerns C: Minor concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK. Several aspects that could lead to placement breakdown were described here. Some of which may require very different responses.
Evidence of positive transition. Although not specifically asked about, many TFC parents shared evidence of a positive transition for youth they fostered, and they were proud and happy to share their success stories. E.g. success at school. Stakeholders perceived qualified clinical successes. One example is from a caseworker who thought that the youth's participation was beneficial even though her stay in an initial foster home placement lasted only a few months. Another qualified success was described by this foster parent, who saw substantial improvements in functioning in a youth she served.	*"She's doing quite well and they also gave her a voucher to get her driver's permit. She's doing well and that's what I would like to see all the children attain." A third said, "I just want that child to be successful so that child can say someone loved me enough to help me to be successful, so that's really my goal. Two of my children have done just that—graduated." – TF Carer* *"She graduated and she's going to school…she was able to get an apartment, she shared it with another young lady for the first year and now she has her own place through a program. She's working and going to college. She's one of my successes, a success story." – TF Carer* *""I think what was most helpful for her out of the experience was just knowing that she could be in a home, and that she realized that she had more*	**1** Castellanos-Brown 2010	ML: Minor concerns C: Minor concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Studies from outside of the UK. Multiple specific aspects of a positive transition were described here. For example, clinical improvement vs success at school. Multiple specific aspects of a positive transition were described here. For example, clinical improvement vs success at school.

	control over her behavior than she thought she did. She'd say, 'You know, I'm crazy, I can't live in a foster home.' That kind of stuff. And so I think her being in that foster home, even though it was four months, she was like no other time I've seen her." – Case worker *"She improved so much in her attitude toward others. It doesn't mean that she was without problems at the end, but it did mean that she seemed to start to get it. And that is the type of thing you feel really good about" – Foster Carer*			

Table 47: Summary CERQual table (Experience of carers, youth, and practitioners undertaking Multidimensional Treatment Foster Care)

Themes	illustrative quotes	Studies*	CERQual concerns	CERQual explanation
A common language and focus and the multidimentional treatment foster care team: One of the main strengths offered by the OSLC model was a degree of focus or 'common language' (seen as crucial in a multi-disciplinary team) and clarity of expectations for young people.	*"We're all very clear about what we're working towards and it helps in not splitting that group around the child." (Team member)*	**1** Kirton 2011	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall: Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst.
Crucial emphasis on rewards and punishments: The emphasis on rewards and punishments was generally regarded as crucial, both for its transparency and potential for setting and maintaining boundaries	*"If they don't earn it, they can see it, there's something there that they can see, you can hold up in front of them and show them. (Foster carer)"*	**1** Kirton 2011	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected.

			Overall: **Very Low**	No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst.
The model takes the emotion out of the situation: A strength was the perceived capacity for the model, with its relatively neutral and technical language, to 'take the emotion out of the situation' and to avoid escalation in the face of anger and outbursts.	*"In a way it stops people really feeling too criticised because it's like ... if someone says to you 'off model'that's like, 'Oh well, I can get back on the model.' (Team member)"* *"You need to be quite calm and not easily fired up, to be able to just walk away when they're ranting and raving and they're in your face and they're shouting at you, and just walk away and let them calm down. (Foster carer)"*	**1** Kirton 2011	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst.
Limitations of the MTFC model: Limitation 1) certain aspects of it needed to be 'Anglicised': Where they occurred, flexibilities tended to reflect either cultural differences or acquired practice wisdom. Within its UK context, some team members saw the programme being more holistic and less focused on 'breaking the cycle of offending', an emphasis sometimes couched in the language of 'leniency': "Helping that child develop ... in whatever way they need and meeting their needs to enable them to move to independence or whatever goes next to it. (Team member)". Limitation 2) it would work for some young people but not others; Limitation 3) the longer-term benefits of the programme were uncertain.	No supportive quote was reported for this theme	**1** Kirton 2011	ML: Serious concerns C: Minor concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst. Three distinct limitations were described.

Sticking to the model as a team – adaptions of MDTFC's logic and philosophy. Following the spirit rather than to the letter: A clear majority of interviewees saw themselves and the programme sticking closely to what they understood as 'the model', while often disclaiming any detailed knowledge of it. This partly reflected the routinisation of practice and perhaps the strength of team ethos. Broad adherence reflected a number of factors. First, the model appeared to 'make sense' to most of those involved, with several foster carers claiming (though with perhaps some oversimplification) that this had been the basis of their own childrearing: It's basically the way I brought my own children up, which is good children get lots of nice things and naughty children get nothing, but I do it with points. Second, the consensus was that, albeit with some flexibility (see below), the model 'worked' but that this required fairly strict adherence: A third factor was that of external monitoring and reporting mechanisms, whether from the NIT or OSLC itself. While this sometimes involved elements of 'presentation' to outside audiences that differed from day-to-day realities, it also served to reinforce the programme's logic and philosophy. Much of course, depended on how far the model and its weighty manuals were to be followed 'in spirit' or 'to the letter'. For example, one team member argued that expectations of young people in terms of healthy eating and eschewing of hip hop or rap music were unnecessarily restrictive and perhaps 'unrealistic'. While most foster carers came to find the award and deduction of points reasonably straightforward, the challenges, such as balancing consistency and individualisation and handling value judgements, should not be underestimated. Additional challenges included what constituted 'normal teenage behaviour' and how far the focus for change should rest with 'large' and 'small' behavioural problems respectively. These issues were, however, usually resolved fairly easily, with foster carers happy with their degree of discretion.	*"I know ... as a team we work towards the model and it's the Oregon model that we follow but it feels much more like we're working to our team model". (Team member)* *"We're very close to the model on most things and whenever we stray I have to say that it kicks us in the teeth." (Team member)* *"My lifestyle to somebody else's might be totally different and what I accept in my house is different to what somebody else accepts in theirs." (Foster carer)"*	**1** Kirton 2011	ML: Serious concerns C: Minor concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst. Three distinct limitations were described. Variability in how the model was applied could lead to inconsistent application and standards. However, there was the idea of the model as a philosophy rather than a detailed set of statutes, which could aid adaptability.

Usefulness of the parental daily report: Parental Daily Reports were sometimes seen as 'a chore' (Westermark et al, 2007), but almost universally valued for their capacity to concentrate minds on behaviours, to ensure daily contact between foster carers and the programme and help 'nip problems in the bud". The data yielded were seen as useful for identifying trends and one-off or recurrent 'spikes' that might reveal behavioural triggers, such as contact visits or school events and as having a potential 'predictive' value for disruptions and optimal transition timing. There were concerns that the prescribed list of behaviours was in places too 'Americanised' (eg 'mean talk') and that self-harm (not infrequent within the programme) was not listed separately but under destructiveness, requiring annotation to distinguish it from instances of 'kicking the door in'. Similarly, there was no reference to eating disorders other than 'skipping meals'. The question of whether behaviours were 'stressful' was clearly dependent to a degree on foster carers' tolerance and time of completion. Concern was also expressed that the Parental Daily Report's focus on negative behaviours was not entirely congruent with the programme's aims of accentuating the positives (see below), a situation that was seen as having a cultural dimension, with one team member commenting, albeit as a generalisation, on how US counterparts in MTFC tended to be 'more upbeat about things' and hence less likely to dwell on negative behaviours.	*"It makes me think about if things have happened, how I can do them better or how we can both do it better. So it's reflection for me." (Foster carer)* *"The next morning or the night time everything's died down and it probably isn't such a big deal ... [do] you give yourself that time just to calm down before you put it in the behaviour or should you do it when it happens?* (Foster carer)	**1** Kirton 2011	ML: Serious concerns C: Minor concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst. Theme covered several issues with the parental daily report including the burden on caregivers, the overly negative focus on behaviours, Americanisation of the language, and lack of distinction for medical or severe problems. However, spikes in behaviour could be tracked, which were helpful to identify triggers.
Engagement was crucial to outcomes but highly variable and prone to change over time: More generally, however, engagement levels were thought to be high, with some respondents indicating surprise at the apparent willingness to accept a restrictive regime with its initial 'boot camp' withdrawal of privileges.	*"She couldn't give a monkey's. It didn't matter what I'd say she was not gonna . . . And she stayed with me for three months and then she decided she'd had enough and went." (Foster carer)* *"I find it bizarre that they engage with it really quite well ... I kind of*	**1** Kirton 2011	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process.

	think if I was a 13-year-old lad ... would I really want to be negotiating buying my free time, my time out with points? But they do ... and they stick to it." (Team member)		**Overall:** **Very Low**	No apparent triangulation, respondent validation, or the use of more than one analyst.
Need for persistence and finding and tailoring the right rewards: Situations were described where young people would rail against restrictions and thwarted demands but ultimately comply. While the motivational value of an identifiable goal (such as return home) was recognised, sustaining interest day-to-day was equally important and required delicate judgements from foster carers as the following contrasting approaches indicate. Equally important, however, was finding the right rewards and appropriate means of earning them (although one young person was said to 'just like getting points'), something that might entail individual tailoring. If this raises questions of 'inconsistency', it was justified in terms of motivation, individual pathways and progression through the programme. Similar logic had meant 'massaging' points to prevent a drop in levels, where this might provoke running away or placement breakdown.	*"My young man likes to look at his points on a daily basis so we go through them with him and then we sit down and work out how he's gonna use his rewards and what he's aiming for next. I have to say that I don't sit down and discuss points with [young person] every night because she will just rip it up and throw it at me and tell me what a load of bollocks it is" (Foster Carer)* *"She needs to score points really, really highly, so whereas one foster carer might give one of the lads ten points for doing what she did, she may need to earn 50 for it to mean something." (Team member)* *"I think with some young people they ... just wouldn't manage being on level one and therefore it is slightly adapted to sort of manage that. (Team member)"*	**1** Kirton 2011	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst.
Are normal activities privileges? Transfer of placements into the programme also raised questions of how far previously 'normal' activities could be recast as privileges to be earned. Over time, this had reportedly given rise to some variations or changes of	No supportive quote was reported for this theme	**1** Kirton 2011	ML: Serious concerns C: No concerns	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how

practice, for example, on televisions in bedrooms or consumption of fizzy drinks.			A: Serious concerns R: Minor concerns **Overall:** **Very Low**	participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst.
Need for redemption and engagement with point and level system: A key element of the OSLC philosophy is 'turning it around', allowing loss of points to be redeemed by subsequent good behaviour or positive reaction to the deduction. Although (some) foster carers felt this approach potentially made light of misdemeanours, the overall working of the programme was supportive of it. One young person had reportedly asked his foster carer not to let him out in case he got into trouble and forfeited a much desired holiday, something that was seen as a significant shift in thinking and timescales.	*"Instead of giving her five points that she'd normally have I'll say, 'Well, you did that really well. I'll give you 15 for that today." (Foster carer)* *"You hear them talking about 'I really turned it around today' ... [or]'I'm working towards my points.' You actually hear the children saying, 'I know I need to be on this programme'. . . they ... have that insight." (Team member)"*	**1** Kirton 2011	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst.
A behavioural model or an attachment model? Behavioural programmes are sometimes criticised for lacking depth or concentrating on 'symptoms rather than causes', a debate we explored in interviews. Foster carers tended to focus on their own specific role in dealing with behaviours and saw the addressing of any 'underlying' problems as being the responsibility of others, especially the individual therapist. Also emphasised strongly was the temporal focus on present and future, by comparison with attachment models 'looking backwards'. If in some senses, practice remained firmly within a behavioural framework, this was not seen as precluding consideration of attachment issues, whether at the level of understanding or in outcomes.	'I'm just trying to break a pattern but it's not actually solving why they do it.' (Foster Carer) 'I find it quite hard not to think about things in terms of attachment' (Team member) "I think what's been helpful is people have sort of said, 'Oh, it's not an attachment model' and I just have been able to say to them, 'What do you think actually putting a containing and caring environment around a child does?'	**1** Kirton 2011	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst.

	... It's not the kind of ... Pavlov's dogs type thing that everyone thinks about when they think about behavioural models. (Team member)"			
Importance of appropriate matching: While in principle, behavioural approaches tend to de-emphasise the importance of relationship, the crucial importance of matching (which tended to involve consideration of several young people for one (or two) foster carer vacancies) was widely recognised and seen as a key area of learning within the programme.	*"I think we're getting it right more often than not and I think that's reflected in the ... reduction of disruptions. When we do get it wrong we get it wrong very spectacularly!" (Team member)*	**1** Kirton 2011	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst.
Move on placements and step-down placements: Marrying MTFC's twin aims of providing time-limited 'move on' placements while effecting sustainable behavioural change required complex judgements as to the optimal timing of transitions. Opinion was divided on this (national guidance had suggested a shortening of placements from around 18 to nine months) between those emphasising the time needed to deal with 'long-term damage' or the dangers of 'relapse' and those worried about stagnation, disengagement or young people 'outgrowing the programme'. While practice wisdom and programme data were seen as aiding decision-making, follow-on placements remained a significant problem. In some instances, this had been resolved by the young person remaining with their MTFC (respite) carers, although this usually entailed the latter's loss to the programme. Consideration had also been given to the establishment of 'step-down' placements to provide a more gradual reduction in structure and support. However, such	No supportive quote was reported for this theme	**1** Kirton 2011	ML: Serious concerns C: Minor concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst. There was a lack of clarity regarding which approach had been most successful for move on or step-down placements.

provision is challenging in terms of recruitment. Several young people who had left MTFC had subsequently kept in contact, and interestingly this included some early and late leavers as well as graduates.				
Foster carers satisfaction with the level of support and out of hours service: Foster carers were extremely positive about levels of support in MTFC – 'Just absolutely amazing', 'I have to say brilliant. 100 per cent brilliant' – and some commented on how this had prevented disruptions that might otherwise have occurred. 'Enhanced' (relative to 'mainstream' fostering) features included higher levels of contact with supervising (and assistant) social workers and a structured pattern of short breaks or 'respite care'. In addition to their primary role of granting some relief from pressures, these arrangements sometimes evolved into follow-on placements after disruptions, helping to provide important elements of continuity. Another crucial 'enhanced' feature was a dedicated out-of-hours service staffed by members of the team, which, though used fairly modestly (typically one or two calls per day), was highly valued for its provision of a crucial safety net. Use of the out-of-hours service ranged from serious incidents involving offending, (alleged) sexual assaults, suicide concerns and violence or damage in the foster home, to reassurance on medical issues and dealing with difficult behaviours.	*"There's nothing more reassuring ... that you can ring someone up and actually hear that person on the end of the phone, it's not some call centre or someone you've never met before." (Foster carer)*	**1** Kirton 2011	ML: Serious concerns C: Minor concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst. Enhanced support covered several aspects that foster carers found to be helpful, particularly in comparison to usual fostering.
Value of therapists and skills workers While the roles of therapists and skills workers sometimes raised issues of co-ordination with foster carers, their capacity to ease pressures at times of difficulty was valued by carers.	No supportive quote was reported for this theme	**1** Kirton 2011	ML: Serious concerns C: Minor concerns A: Serious concerns R: Minor concerns **Overall:**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent

			Very Low	triangulation, respondent validation, or the use of more than one analyst. It is unclear what was meant by “issues of co-ordination”
Usefulness of the foster carers’ weekly meetings the foster carers’ weekly meetings. These served both to ensure fairly prompt attention to issues, but also afforded the opportunity for mutual support and problem-solving	No supportive quote was reported for this theme	**1** Kirton 2011	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst.
Success of co-ordinated working There has been little research on the operation of teamwork within MTFC or its external relations. Despite significant staff turnover and some reworking of roles, the programme had also benefited from continuity in some key positions and a capacity to fill vacancies relatively quickly. From interviews and observation, internal roles appeared to be fairly clear and well co-ordinated, although the team’s relatively small size had inevitably given rise on occasion to questions of flexibility, with tensions between willingness to help out and the maintenance of role boundaries (eg on provision of transport or supervision of contact). The workings of MTFC both facilitate and require high levels of communication, combining multifarious opportunities for contact with a need to pass on information regarding ‘eventful’ lives and high levels of activity on the programme. With occasional, and usually fairly specific exceptions, team members regarded	*"On the whole, given that we have got a bunch of quite disparate professions ... we’ve got a conjoined CAMHS, education and social care team, there’s a lot less conflict than I thought there might be.” (Team member)* *“They do value your input and they value your knowledge and your sort of past experience.” (Foster Carer)*	**1** Kirton 2011	ML: Serious concerns C: Minor concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst. Some sense of difficulty co-ordinating the team and role boundaries despite the overall positive findings.

communication as very effective, while foster carers were generally positive about their participation:				
Leadership of programme supervisors The role of Programme Supervisor (PS) as key decision-maker – variously referred to as 'Programme God' or 'the final word'– was crucial within the team. While some team members reported taking time to adapt to this, it was widely acknowledged that the PS and indeed 'the programme' could act as a lightning rod to defuse conflicts involving young people and their foster carers.	*"Always it's'[PS], says' ... in answer, so my [young person] wishes that [PS] would drop dead at any moment. But that takes a huge amount off of me because it's not me who's saying it. That's absolutely been brilliant." (Foster carer)*	**1** Kirton 2011	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst.
Clash with the children's social worker Like any specialist programme, MTFC has faced challenges in its relationships with Children's Social Workers (often exacerbated by turnover among them) regarding the balance between a necessary transfer of responsibility on the part of Children's Social Workers while they continue to hold case accountability. Despite routinely sent information and discussions with the programme supervisors, almost all CSWs interviewed expressed some concerns, usually involving either not knowing of specific incidents (e.g. entry to hospital) or more ongoing matters, such as the content of counselling. For some, the concern was simply about being 'out of the loop', while for others it was the potential for exclusion from decision making and conflict with statutory duties. From a programme perspective, there were occasional references to Childrens Social Workers who 'found it hard to let go', or whose misunderstanding caused confusion. As one foster carer put it, 'they start telling these kids all sorts of things and you're thinking "no actually, they can't"', although it should be noted that some Social	*"It seemed to me that the treatment fostering team pretty much took on responsibility for the case, which is fine, but if anything goes wrong then don't make me accountable." Social Worker* *"[. . .] was the sort of child I used to literally wake up worrying about and I don't now because somebody else is doing that worrying."* Social Worker	**1** Kirton 2011	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst.

Workers were viewed very positively. A more common concern, however, was that some Social workers 'opted out' once the young person entered MTFC, although this was often acknowledged (on both sides) as understandable given the workload pressures facing children's social workers. Encouragingly, CSWs also referred to improving communication, with some plaudits for MTFC being approachable and responsive. The programme had attempted to improve liaison by visiting teams and by inviting children's social workers to attend meetings, although these offers had not been taken up, with CSWs reporting diary clashes and imprecise timings to discuss 'their' charges. It was also noted that the very specific workings and language of MTFC were not always well-integrated into Looked After Children (LAC) review processes.				
Social workers were positive about the programme even where placements broke down This is not, of course, to say that time in MTFC represents any form of panacea, but recognition of its impact in often difficult circumstances. The idea that even 'failed' placements might nonetheless carry some residual benefit for young people – particularly those in 'multiple disruption mode' was also expressed by some.	*"He was a really, really difficult young man and they've really supported him and provided him with a stable home environment, really, really firm boundaries which he's really needed . . . I think the placement's been fantastic. She would have met the criteria [for secure accommodation] in terms of running off ... self-harming ... And now the self-harming is very ... very limited. It changed his life around to be perfectly honest. Yeah, I'd go that far."* *"He's only absconded three times in six months or so and it's only ever been running off from school and he's back by nine o'clock ... whereas before he was missing for days on end. (Team member)*	**1** Kirton 2011	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Data was likely collected prior to 2010. Unclear how participants were recruited and selected. No in-depth description of the analysis process. No apparent triangulation, respondent validation, or the use of more than one analyst.

	There are obviously still concerns about her emotional welfare and there will be, but she was a very, very damaged girl for lots and lots of reasons, but there was a time where I thought she just might ... not survive. (CSW)"			
Creating relationships with birth families. The Circle Program was felt to be more likely to promote reunification with family or enter kinship care than among children in a generalist foster care placement. Factors contributing to the child's relationship with their family of origin included: valuing the unique knowledge brought by the parents, encouraging the attendance of family, and the usefulness of care team meetings.	*"The way the parents are treated and welcomed and their unique knowledge recognized contributes to the success of Circle" - Therapeutic specialist* *"Families generally don't come to every meeting but we encourage their attendance when they do come. In GFC, a carer has to be very assertive to create relationships with birth families, but it's a much more natural process in Circle because of care team meetings" FC worker*	**1** Frederico 2017	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group and thematic analysis methods were not made explicit.
Support that was helpful for retaining foster carers - Focus group data highlighted factors deemed to be influential to carer retention such as support, training, ongoing education and access to flexible funds to obtain services. Comments highlighted the value of participation in regular care team meetings. Carers spoke of their commitment to their role as a Circle carer, highlighting the experience of support, training, and ongoing education.	No quote to support this theme was reported	**1** Frederico 2017	ML: Serious concerns C: Minor concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group and thematic analysis methods were not made

				explicit. Theme covered several distinct aspects of support that could help to retain foster carers.
Access to flexible brokerage funds These funds were described by carers as supporting children to participate in normative community activities, for example a dance class or organized sport. Where a child required a specialist assessment (e.g. speech therapy) that was not available through public funding within a reasonable time frame, brokerage funding could be used. A key message from carers was the importance of accessing such discretionary funds to meet a child's needs in a timely way.	No quote to support this theme was reported	**1** Frederico 2017	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group and thematic analysis methods were not made explicit.
Carers valued and treated as professional equals. The Circle Program was described by some carers as elevating the role of the foster carer to one that is 'equal' to the other professionals on the care team. This, combined with the Circle Program training, professionalized the role of the foster carer, and some carers reported increased levels of confidence in their competence. Carers also commented that the success of the Circle Program was linked to the professional support provided: feeling 'listened to', having their opinions 'valued' and being 'supported' in their role as foster carer. In the focus groups, carers discussed their role and participation in the Circle Program with passion and enthusiasm. The wellbeing of the carer was also a focus of care team meetings with one carer commenting that someone always asked her how she was at care meetings and 'They really want to know how I am'!	No quote to support this theme was reported	**1** Frederico 2017	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group and thematic analysis methods were not made explicit.

The common purpose of the care team with an equal system of carers – The egalitarian nature and common purpose of the care team were features mentioned by a number of focus group participants as having significance in their experience of TFC.	No quote to support this theme was reported	**1** Frederico 2017	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group and thematic analysis methods were not made explicit.
Training essential particularly in trauma theory, attachment and self-knowledge. Contents of training - Training in trauma theory, attachment and selfknowledge were also identified as essential components by foster carers and foster care workers alike.	*"The education helps you not to take it personally and respond better and to keep the end in sight which is the relationship with the child'" - TF Carer*	**1** Frederico 2017	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group and thematic analysis methods were not made explicit.
Key role of the therapeutic specialist (Circle programme). The key role of the therapeutic specialist - Therapeutic specialists were identified by all stakeholders as core to the Circle Program's success. Circle carers and foster care workers highlighted the value of this role in guiding assessment and the care of the child. The availability of the therapeutic specialist was	No quote to support this theme was reported	**1** Frederico 2017	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns	Only 1 study contributed to this theme. Study from outside of the UK. Researchers do not discuss how participants were selected for the study, and why these

considered a particular strength given their knowledge; and ability to assist carers in understanding the child and their needs. Their role was active in guiding the foster carer in their day to day response to the child and this was experienced as very supportive and was seen to facilitate a more immediate and appropriate response in meeting the child's needs. The therapeutic specialist could also extend their focus to include the child's family of origin as from the commencement of placement the aim is for the child to reunify with their family if the family can meet their needs. As many of the families of origin had themselves experienced trauma, it is important that they be assisted to heal and change to be available for the care of their child/young person.			**Overall:** **Very Low**	were the most appropriate or why some chose not to take part. Focus group and thematic analysis methods were not made explicit.
Building a support network for the child. Feedback from focus groups and the survey highlighted the importance of building a support network for the child/young person. This network included teachers, extended family and others in addition to members of the care team.	*'The amazing camaraderie across the care team that is generated by the therapeutic specialist driving a continual focus on the child and the child's needs…. we really are a circle of friends around the child' – TF Carer*	**1** Frederico 2017	ML: Serious concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group and thematic analysis methods were not made explicit.
The hard and stressful work of fostering. How would foster parents and staff tolerate the intervention? a feasibility worry was that the TFC-OY intervention would be difficult for foster parents to tolerate. This was confirmed. In addition, some staff found the work stressful. In weekly meetings and in the qualitative research interviews, foster parents reported that the youth were extremely difficult to parent. Despite training that focused	*"It is challenging every day because I just have to pay attention to her moods more. The hardest thing is that I have to monitor her so closely and I have to watch what I say." – TF Carer* *"It seems like all at once, the kids*	**1** McMillen 2015	ML: Minor concerns C: No concerns A: Serious concerns R: Minor concerns	Only 1 study contributed to this theme. Study from outside of the UK. This study did not make its methods regarding coding and thematic analysis explicit.

on the needs of youth with psychiatric problems, the foster parents reported being surprised by the amount of emotional volatility in the young people they served, the low levels of what they perceived as emotional maturity, and high needs for monitoring and supervision. No parent or youth described an extended period of time when life settled into a comfortable routine. It always felt like stressful work to the foster parents. The experience was not easy for the TFC-OY staff either. One Life Coach was surprised by the low level of emotional functioning of youth in an office setting.	*started being very chaotic and disrupting things all over the place, and everyone was coming into my office, all in a row. Boom, boom, boom. And it was just chaos, chaos, chaos, chaos. Crisis. Running away from appointments. Breaking things. And it was for a month straight." – Life Coach*		**Overall:** **Very Low**	
Key role of the skills coach (Circle Programme) The skills coach component was uniformly appreciated by foster parents, the program supervisor and the youth. When asked about the skills coach component, the youth tended to report things the coach had done for and with them that were related to positive youth development. E.g. helping to find a job, getting a drivers liscence, going to find a place to eat. Multiple stakeholders commented on the positive relationships that youth developed with their skills coaches.	*"She took me outside and she helped me find a job. She took me out to eat. She helped me get my driver's license. She helped me get my permit. Helped me with my homework. She helped me learn how to make a grocery list, pay bills, audit. She helped me with a lot of things." – Foster care youth* *"They've been able to build a relationship with the kids that doesn't have any strings attached. The kids look at them as somebody who's on their side and doesn't want anything from them." – "Staff member" about relationship with skills coaches*	**1** McMillen 2015	ML: Minor concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK. This study did not make its methods regarding coding and thematic analysis explicit.
Key role of the psychiatric nurse (Circle programme). A second component that drew positive comments from stakeholders was that of the psychiatric nurse. Care managers appreciated the medication and diagnostic review provided by the nurse. They provided numerous examples of how they used this review and knowledge in their interactions with mental health providers. While some youth did not understand why they were receiving	No quote to support this theme was reported	**1** McMillen 2015	ML: Minor concerns C: No concerns A: Serious concerns R: Minor concerns	Only 1 study contributed to this theme. Study from outside of the UK. This study did not make its methods regarding coding and thematic analysis explicit.

psychoeducation about their mental health problems from a nurse, others greatly appreciated it, explaining that it changed how they monitored their symptoms and how they approached their psychiatric providers.			**Overall:** **Very Low**	
Role of the life coach (Circle programme). The role of the life coach was a difficult one to execute. Initially, the role was focused on interpersonal skills the youth needed to succeed in the foster home, but was later supposed to involve life planning and psychoeducation. Two life coaches worked in the program and both found their role frustrating in terms of completing what they felt they were being asked to do.	*"To talk with them about school and work and STDs and their grief issues and their placement issues and what they did in school and their upcoming court hearing….you can't do all that so it was…at times it was a little overwhelming to try to basically do what I thought I was being asked to do." – Life coach*	**1** McMillen 2015	ML: Minor concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK. This study did not make its methods regarding coding and thematic analysis explicit.
The family consultant role (Circle programme). The family consultant role was less well received. The family consultant made many unsuccessful efforts to re-engage biological relatives and other nominated individuals into the lives of youth in TFC-OY and executed one successful effort, involving an older sibling. The role was also expensive (using a master's level mental health professional). In the end, the principal investigator concluded that the family consultant role would be eliminated going forward and that needed family work would be conducted by the program supervisor.	No quote to support this theme was reported	**1** McMillen 2015	ML: Minor concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK. This study did not make its methods regarding coding and thematic analysis explicit.
Changes suggested for the circle programme. Program changes needed? Since it was decided that it was permissible to alter the intervention mid-pilot in order to have an intervention worthy of testing at the end of pilot period, two modifications to the protocols were made several months into the intervention: 1) redefined roles for team members; and 2) efforts to address emotional dysregulation. Some of the life coach's responsibilities were offloaded to other team members. The skills coaches became responsible for helping youth plan for more independent living and the	*"If they have Axis Two with Cluster B stuff going on, I don't think that the families are prepared for what kind of emotions that can bring up… So I don't know if there needs to be some sort of training for the foster parents, training to know how to handle that. Have the foster parents go through some sort of DBT training themselves? So that they're at least speaking*	**1** McMillen 2015	ML: Minor concerns C: Moderate concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. Study from outside of the UK. This study did not make its methods regarding coding and thematic analysis explicit. Several changes to the intervention were described however it

psychiatric nurse became responsible for providing psychoeducation about mental health problems. These modifications were considered successful, as viewed by stakeholders in qualitative interviews at the end of the project. Most glaring was the need to develop intervention components to address youth emotion regulation problems. Six of the foster parents interviewed qualitatively reported that the young people served in their homes experienced severe emotional outbursts; typically youth were seen as quick to become emotional and remaining emotionally volatile for substantial periods of time. During the last six months of the pilot, TFC-OY staff explored the potential of using processes and materials from Dialectical Behaviour Therapy in TFC-OY to address youth emotion regulation problems. Staff received initial DBT training from a certified trainer and a DBT skills group was mounted with the foster youth to teach interpersonal effectiveness and mindfulness skills. The groups were well received by youth who attended them, but attendance was a problem, mostly due to logistics, such as distance from youth placements to the group site, work schedules, and transportation issues. By the end of the pilot, the intervention team concluded that any future trials or implementation of TFC-OY should be delayed until new intervention components were developed to address emotion regulation problems.	*the same language to remind them to use their skills."* – Life coach			was unclear where qualitative data were coming from for these changes and if participants were all in agreement.

Table 48: Summary CERQual table (Experience of carers and HEAL co-ordinators using the HEAL programme (Health and Wellbeing Co-ordinators))

Themes	illustrative quotes	Studies*	CERQual concerns	CERQual explanation

Necessity of the HEAL programme - low levels of awareness/knowledge about healthy lifestyle choices - When asked specifically about the young people's lifestyle habits prior to implementation of the HEAL programme, all carers commented that the eating and physical activity habits of the young people could be improved. Carers frequently commented that young people generally lacked awareness, knowledge and understanding of the importance of leading a healthy lifestyle, especially eating well and being physically active.	*"'They [young people] don't have a great knowledge of healthy eating and what they should be eating and what is a healthy amount of exercise.'" (RCW7)*	**1** Cox 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall: Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Non-UK-based study.
Necessity of the HEAL programme - Background of disadvantage – The carers emphasised the young people's vulnerable backgrounds and home environments prior to entering out of home care as a means of explaining their poor health literacy. Common explanations offered by carers included poor parental modelling, parental substance use, disruptive home environments and food being associated with the trauma of abuse and/or disturbed attachment. Additionally, coordinators noted that many young people enter OOHC with pre-existing, food-related issues, and these were often linked with their past experiences. Common examples included hoarding, bingeing, stealing or hiding food, and a tendency to overeat. It was also apparent that the majority of young people have a preference for 'junk' food, and this was often associated with lifetime exposure to an 'unhealthy' food environment.	*"'Healthy eating is the least of their [parents'] issues. There is also a lot of thought that goes into preparing healthy food and facilities to store healthy food – resources families may not have. You need to go shopping and buy fruit and vegies and this may not be a priority for drug affected or addicted parents.'" (RCW13)*	**1** Cox 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Non-UK-based study.
Necessity of the HEAL programme - Leading a Healthy Lifestyle is not a Priority – A number of carers suggested that, prior to the HEAL programme, establishing healthy lifestyle habits for the young people in out of home care residences was not always a priority. Carers described how managing everyday routines in out of home care residences was their highest priority, especially crisis	*"'If there's an argument, they're like, "ok, let's go for a drive". But a drive ends up at the KFC [Kentucky Fried Chicken] drive-through getting a slushy and then the slushy turns into a slushy and food. And this is after dinner, so right before bed.'" (HC 1)*	**1** Cox 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection

management, and often there was little time or energy left to encourage the young people to build and maintain healthy behaviours. Not surprisingly, the management of critical incidents also impacted implementation of HEAL. Coordinators talked about carers having to contend with aggression, substance abuse and criminal behaviour, and that a large percentage of their time is consumed managing these types of behaviours. HEAL activities, such as planning a healthy meal or going outside to be active, were sidelined when these crises occurred. One coordinator had concerns about carers in her units often using food to help manage difficult behaviours. For example, using junk food to diffuse a situation:			**Overall:** **Very Low**	of participants. Non-UK-based study.
Any Healthy Change is a Good Change – What Worked in Implementation – Residential carers and coordinators talked optimistically about the programme's impact, and unanimously agreed that any healthy shift in a young person's lifestyle habits, as a result of participating in the HEAL programme, was highly valued. While not all changes were maintained for the duration of the programme, both groups noticed a shift in previously ingrained behaviours (of both young people and carers). Five sub-themes also emerged.	*No quote was reported to support this theme*	**1** Cox 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Non-UK-based study.
Any Healthy Change is a Good Change - Raising Awareness Carers frequently commented that even if behavioural changes were not achieved, implementation of the HEAL programme resulted in a general shift in awareness around the importance of leading a healthy lifestyle. This was viewed as a valuable, initial step along the change continuum. For coordinators, the most significant change reported was increased staff awareness, with carers becoming more conscious of the types of food/drinks that they were providing to young people. Increased awareness led to changes in the OOHC environment including: provision of	*"'…there's been more awareness of good health and exercise since we've had the HEAL programme. Whereas before we were just, I guess it wasn't as structured.'" (RCW15)*	**1** Cox 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Non-UK-based study.

healthier food and/or beverages, an increase in the type and/or frequency of activities being offered to young people and improved role modelling by the residential carers.				
Any Healthy Change is a Good Change - Healthier Habits - Carers were asked to describe any changes that they had observed in the young people's eating habits since the beginning of the programme. Carers described both a reduction in 'unhealthy' habits, as well as an uptake of 'healthier' ones. The carers themselves mostly initiated and enacted these changes. For example, staff eliminated or reduced the availability of 'unhealthy' snacks (e.g. lollies, chocolates, chips), encouraged smaller serving sizes, restricted the availability of highly processed, convenience foods (e.g. frozen meals and snacks), offered less sugary drinks (e.g. soft drinks or juices) and used leaner cuts of meats in the main meals. A number of carers observed that these changes were not isolated to the young people; their units had also made changes regarding the types of foods that they and other staff would eat whilst on shift. Coordinators focused their discussion on improved physical activity, noting that many young people were eager to get involved in the activities that were presented to them through the HEAL programme. Novel activities and purchasing equipment for the unit(s) were used to increase physical activity levels, while simultaneously building rapport and engaging the young people in the programme content more broadly. Over the course of the programme, many units began to incorporate physical activity into their weekly routines, with a number of young people engaging in regular exercise programmes. Coordinators also indicated that the programme contributed to the development of skills that are likely to support independent living post-care, as well as knowledge about leading a healthy lifestyle. For example, an increased number of young people demonstrated	*"'There is more fruit and less snack type foods. We have moved away from chips and lollies and more on the healthier side. More cooked meals and lunches… we are still doing this now.' (RCW14)"* *"'Sailing. We did a couple of overnight trips doing dolphin swims… we did rock climbing, trampolining… we had a couple of young people enrol in hockey and gym. The young people who were actively involved in the gym after the HEAL programme promoted that, are still going now. Lots of swimming...'" (HC 2)*	**1** Cox 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Non-UK-based study.

initiative by contributing to weekly menu plans and meal preparation.				
Any Healthy Change is a Good Change - Modelling is Key - Carers and coordinators talked about a positive flow-on effect from role modelling of physical activity, with the young people more inclined to engage in exercise when invited to join in with the carers or coordinators. Both groups highlighted the social benefits of co-participation, commenting that doing physical activity together provides an opportunity to spend quality time with the young people. A variety of physical activities that they and the young people had engaged in as a result of the HEAL programme were discussed, including: organised sports (i.e. football and rugby), attending the gym together, personal training, swimming, walking, bike riding, dodge ball and trampolining. Two carers felt that the HEAL programme gave them leverage to start a conversation with a young person about eating healthily or being more active,	*"'Personally it was a good opportunity for me to make an excuse to get the kids out. I would say, "C'mon we have to go do something, it's part of the programme". I used it as an excuse to get the kids to get out of the house. And I would take them to the gym, which was good for me, 'cause I got to go to the gym too.'" (RCW14)*	**1** Cox 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Non-UK-based study.
Any Healthy Change is a Good Change - Importance of Relationships – Another key theme that emerged was the importance of a strong relationship between carers and the young people, as a means to initiate and encourage change. In particular, carers discussed how a strong relationship helped them engage young people in conversations and/or activities, increased the likelihood that they would feel motivated to model staff behaviours and made it easier to broach issues that the young person may be facing. One carer talked about young people in OOHC often being mistrustful of adults, and therefore building a strong relationship increases the likelihood that they will respond positively to suggestions around improving their health. Similarly, if the coordinator was able to establish good rapport with a young	*"'Sometimes it's as simple as just talking to someone that isn't going to file note everything they say and do a handover...'" (HC10)*	**1** Cox 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Non-UK-based study.

person, he/she were more likely to be receptive to the programme. Conversely, weaker relationships reduced the likelihood of the young person engaging. HEAL coordinators felt that when they did engage, the young people enjoyed the specialised attention, without record keeping:				
Any Healthy Change is a Good Change - Connection to Community – Carers and coordinators capitalised on opportunities presented by HEAL to connect the young people with the wider community. Each described how the programme helped the young people become more engaged in the community, either through activities run across different OOHC residences or by connecting them with external organisations/services – each young person participating in the programme was offered a free six-month Young Men's Christian Association (YMCA) gym membership. Building these connections facilitated positive social interaction and improved their confidence.	*No quote was reported to support this theme*	**1** Cox 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Non-UK-based study.
Room for improvement - Challenges faced in implimentation - Building Key Players "Buy-in" – Carers highlighted the need for better programme 'buy-in' from key stakeholders both within their unit and the broader organisation. They generally felt that not all carers, team leaders and/or managers actively endorsed the programme. This was perceived as a barrier to successful uptake and maintenance of the programme. Carers also talked about difficulties implementing HEAL when there were no formal consequences for not participating or actively engaging in the programme. This often resulted in varied staff engagement within the unit, that is, some people were inconsistent in their reinforcement of programme objectives with the young people, and impacted others' ability to initiate and sustain changes. Carers also highlighted that young person 'buy-in' is important for longterm	*"'…Good ideas would come in but wouldn't end up being the norm. And then the kids would push and someone caves. And then everyone has to cave, because it seems like it's not working.'" (RCW5)* *"'It's hard to make changes in adults that haven't been through trauma, like let alone kids that are so blocked off or disengaged.'" (HC10)*	**1** Cox 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Non-UK-based study.

maintenance of the programme objectives. In particular, carers spoke about two main issues in relation to engaging the young people in the programme content: (1) although the HEAL programme is intended to be implemented using positive encouragement, incentives and reinforcement, not as a command and control approach with consequences for not complying, carers found it difficult because there were no repercussions for a young person not wanting to comply with their suggestions around changing their eating and/or physical activity habits; and (2) staff were discouraged from persisting with programme messages if it was perceived that doing so would be detrimental to their relationship with the young person. This is not dissimilar to coordinators who were unable to engage all young people in the programme content for a range of complex reasons, including social withdrawal (i.e. young person isolating him/herself from carers and other young people in the unit), frequent absconding, engaging in criminal behaviour, heavy substance use or a combination of each. The high turnover of young people (and carers) across different units also impacted the coordinators' ability to initiate and maintain relationships, and encourage programme participation: For young people, other programme implementation challenges noted by coordinators included: (1) a lack of practical skills to translate their intentions into action (e.g. young people in OOHC have often missed typical opportunities in childhood for skill development, e.g. learning to swim or ride a bike); (2) difficulties forming relevant/realistic goals and sticking to them over a period of time; and (3) in some cases difficulties accepting authority and following rules, with the programme being perceived as a means of 'rebelling' and resisting rules (a trait that is characteristic of the teenage years).				

Room for improvement - Carers are Role Models – Carers and coordinators observed differences among carers' ability to be role models for young people. Carers who had an interest in their own health and wellbeing embraced being a role model and tended to show more initiative in terms of engaging the young people. However, carers could also work against the aims of HEAL by modelling 'unhealthy' habits. This was mostly attributed to some carers having low levels of health literacy, failing to recognise why it is important to focus on improving the young people's health (in the face of other challenging behaviours), misperceptions about what would be considered 'healthy' (e.g. carers mistakenly believed that their unit was already healthy) and lacking the necessary skills to model a healthy lifestyle. Greater engagement was observed among carers who would actively seek out opportunities to get the young people exercising, and were constantly encouraging them to 'get moving'. Carers in these units were also more likely to access programme resources, to ask coordinators for advice and to work collaboratively to improve their unit's healthiness. Similarly, carers who provided consistent support to the young person to participate in activities (i.e. ensuring transportation to the venue, staff availability and continually providing encouragement) had the most success. Conversely, if carers were not committed to the programme, were hesitant to participate or were inconsistent, this was also reflected in the young people's attitudes and behaviours towards the programme, and long-term change was not established.	*"'Ultimately up to the staff, if they don't do it in their own lives why would they do it differently at work.'" (HC8)*	**1** Cox 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Non-UK-based study.
Building Organisational Capacity - Ensuring sustainability - Creating a Health Champion – Carers' opinions were sought on which was the best delivery model for HEAL: a dedicated or specialist HEAL role (external model) or a carer (internal model). All but two carers believed	*"'If the programme closes or whatever I am sure there would be other staff willing to take it on…we are more conscious of what we are doing and what we are feeding our young people anyway now."'*	**1** Cox 2018	ML: Minor concerns C: No concerns A: Serious concerns	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection

that having an external HEAL coordinator, who embodied and promoted key programme messages, and worked alongside unit staff to embed the HEAL programme into standard practice, would be the best way to achieve the programme objectives. Suggested reasons for this included: (1) an external person is more able to focus on changes that could be made in a particular unit (given that it was his/her primary role); (2) carers are already overextended and therefore have limited time to implement an additional programme, for example, carers are often occupied with the daily routines of the residential care units (i.e. transportation, maintaining the cleanliness and order of the unit, following up young people who have absconded); (3) high staff turnover impacts consistency; (4) carers often have more immediate priorities (i.e. managing crisis and keeping the young people safe); and (5) an external coordinator was viewed as having more 'authority' to implement changes. Despite most advocating for a dedicated HEAL role, having a staff member within the unit take on the programme as an additional portfolio was still valued. Suggested benefits of this approach included having greater knowledge about the young people, the residential units and the organisation. Coordinators agreed that the programme had the greatest impact when they were able to identify a HEAL 'champion' in their unit(s). These carers were described as being passionate about the programme's objectives and proactive and they promoted the programme when the HEAL coordinator was away from the unit.	*(RCW5)* *"'So if there's more health conscious people in the unit, they're definitely more onside with the HEAL stuff, and will push it further, which has helped.'" (HC 1)*		R: Moderate concerns **Overall:** **Very Low**	of participants. Non-UK-based study.
Building Organisational Capacity - Making the HEAL Programme Sustainable – Although the carers were able to recognise a number of positive programme outcomes, there were mixed responses in regards to whether the changes were sustained throughout the duration of the programme or would be maintained post-intervention. Some	*"'I thought it was a good opportunity to get something going in terms of healthy eating and activity which is something we have always looked to pursue. I dare say all residential programmes should have something like that.'"*	**1** Cox 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection

carers were confident that any changes made were still in place. Others indicated that they were unable to achieve lasting changes. This was mostly explained by the young people's variable engagement (i.e. what is currently going on in their lives, and individual client complexities). It was clearly evident, however, that carers saw great value in the programme content. A number of carers made suggestions for improving the programme. These were mostly around tailoring the programme to fit the unique context of residential care. Specific examples provided by the carers included: fresh fruit/vegetable boxes, cookbooks, meal plans, vouchers for sporting organisations/activities and access to gyms. Other suggestions included having male and female HEAL coordinators, and increasing the number of people trained to deliver the programme content (to facilitate increased one-on-one engagement with the young people and positive role modelling). For coordinators, they generally felt that for all carers to be able to deliver the programme effectively, they too needed training in the programme content. Although this varied across staff groups, there was a sense that carers' health literacy could be quite poor, and therefore carers would benefit from developing their understanding of why it is important to lead a healthy lifestyle, both for the young people and themselves. Coordinators stressed that education alone is not sufficient. Additional training needs to: (1) be interactive; (2) include strategies on how to engage the young people in health activities and empower them to make positive behaviour changes; (3) include strategies for broaching sensitive topics; and (4) focus on their power as a role model. Additional suggestions to help prioritise health outcomes included: (1) formalising the expectation that young people are regularly involved in activities that promote their health and/or wellbeing; (2) incorporating HEAL into each young person's care plan; and (3) building a ‘healthy eating, active living’ philosophy	*(RCW14)*		**Overall:** **Very Low**	of participants. Non-UK-based study.

into carers' position descriptions.				

Table 49: Summary CERQual table (Experience of CAMHS clinicians in a Psychological Consultation for Social Workers programme)

Themes	illustrative quotes	Studies*	CERQual concerns	CERQual explanation
Provide something valuable – All clinicians saw consultation as a useful provision for social workers. In particular, they highlighted how they aim to provide a protected space to think about complex cases and gain different perspectives. They also reflected on the containing nature of consultation, how they hope to develop professionals' understanding of a child or young person's difficulties, manage risk and provide practical support with future planning, mirroring the most popular goals on the questionnaire data.	*"You may have a professional network who are extremely worried and they need containment . . . the space provided during consultation allows us to do that." (Clinician 1)* *"I think it's probably about building a greater understanding really and putting the child into some kind of context, whether it's their attachment history or anything else . . . and think about what their needs are and how you can then put things in place to meet those needs." (Clinician 2)* *"Risk assessment and sharing that risk and documenting that risk." (Clinician 3)* *"There can also be the other side . . . a lot of what we do around transitions is a lot more practical, thinking about future pathway planning, where they're going to and if there are any issues." (Clinician 4)*	**1** Dimaro 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall: Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Unclear how thematic analysis was performed.

Consultation process - the importance of explicitness – The importance of explicitness was discussed as a critical factor throughout all stages of the consultation, including having well-defined service responsibilities at the time of referral, clear roles and specific goals outlined early on and mutually agreed distinct actions at the end of sessions. Explicitness was also identified as a potential area for improvement. Most clinicians were surprised by the low percentage of respondents who wanted help with considering effective ways to parent and/or form a relationship with a child. One interpretation was that despite this being a common thread throughout consultation, it was not made sufficiently explicit to social workers.	*"We're not explicit about what we don't do and I quite often have people asking for things and getting very fed up with us when we don't do them." (Clinician 5)* *"Maybe [the relationship] could be made more explicit in the actual consultation . . . it seems to be a theme throughout consultation but isn't honed in on." (Clinician 6)*	**1** Dimaro 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Unclear how thematic analysis was performed.
Being flexible and guided by the client – Being flexible and guided by the client was also identified as a sub-theme, particularly early on in the process. Moreover, this was suggested to influence the questionnaire data.	*"You'd ask at the beginning of a consultation what people wanted to get out of it . . . so people use the space in the way they need to." (Clinician 9)* *"If you . . . use that space to focus on addressing the concerns [the social worker] has, you wouldn't have time and space to do some of that other stuff [on the questionnaire] so when the feedback was given they would probably say no . . ." (Clinician 1)*	**1** Dimaro 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Unclear how thematic analysis was performed.
Clinician-social worker relationship – Clinician-social worker relationships were something that clinicians recognised as influencing the consultation process but that was not addressed in the questionnaire and may have also affected the results.	*"It doesn't pick up the kind of conflicts that might arise within consultation . . . and it would look like we haven't been able to achieve anything, but it's not through want of trying . . . " (Clinician 4)*	**1** Dimaro 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Unclear how thematic

			Very Low	analysis was performed.
Impact of factors beyond the consultation room – Wider systemic issues were directly referred to throughout the focus group. These were categorised into two sub-themes. Other agencies, such as independent reviewing officers, social work managers and the courts, were all recognised as influencing whether consultation makes a difference. Working effectively with staff/agencies and links with local services was also identified by both groups as a goal, social workers wanted help with but that the service could improve on. Social workers' motivation and expectations were also seen to influence what they would want from consultation and how satisfied they might be. In particular, one group speculated that the lower score on contact may be the result of social workers expecting court reports:	*". . . we can make suggestions for what the best arrangements for contact are but . . . if it doesn't fit in with what the IRO is saying or what their manager is saying or what the courts are saying, then they're just going to carry on as before . . . "(Clinician 4)* *". . . maybe that [score on practice] reflects the bigger system, especially at the moment, social workers don't have a huge amount of choice about placements or those bigger scheme things so to change their practice is really difficult." (Clinician 8)* *"Forty percent of this wasn't achieved . . .We have all these other agencies coming up and we don't even know they exist." (Clinician 7)* *"We've been more resistant to the issue of providing court reports in that area, which for some workers has been quite difficult." (Clinician 8)*	**1** Dimaro 2018	ML: Minor concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study at moderate risk of bias: unclear recruitment strategy and selection of participants. Unclear how thematic analysis was performed.
Challenges of evaluating social worker consultation – All clinicians acknowledged challenges with evaluating consultation. They were especially conscious of adding to social workers' already high workloads. One solution to this was	*"We don't know what level of skill or ability to manage the situation they felt they already had . . ." (Clinician 9)*	**1** Dimaro 2018	ML: Minor concerns C: No concerns A: Serious concerns	Only one study contributed to this theme. One study at moderate risk of bias:

administering the questionnaire early alongside other routine measures, but clinicians recognised that early evaluation was not ideal for capturing impact, which they perceived to occur over a longer period of time. There was some criticism of the items on the questionnaire itself, above all, on those asking about a difference. Clinicians spoke about gauging the value of the service using other methods such as informally receiving positive feedback, good attendance and continued referrals. It was also noted that consultees are often given other feedback forms issued by the local health trust, subsequently raising questions about how to ensure quality of responses on questionnaires.			R: Moderate concerns **Overall:** **Very Low**	unclear recruitment strategy and selection of participants. Unclear how thematic analysis was performed.

Table 50: Summary CERQual table (Experience of looked after children in the Theraplay programme)

Themes	illustrative quotes	Studies*	CERQual concerns	CERQual explanation
Context: Care setting – carers and school staff felt that the child's early life experiences and placement instabilities impacted on the child's learning.	No quote was reported to support this theme	**1** Francis 2017	ML: Moderate concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very low**	Only one study contributed to this theme. One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst.
Context: School systems – staff felt the work was constrained by limited time for sessions, support for teachers and the intervention not being embedded in the school.	No quote was reported to support this theme	**1** Francis 2017	ML: Moderate concerns C: No concerns A: Serious concerns R: No concerns	Only one study contributed to this theme. One high risk of bias study. Unclear description of thematic analysis, No triangulation,

			Overall: **Very low**	respondent validation, or the use of more than one analyst.
Mechanisms of intervention: Relationship with significant adult – staff appreciated opportunities to build relationships with the child/children	No quote was reported to support this theme	**1** Francis 2017	ML: Moderate concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very low**	Only one study contributed to this theme. One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst.
Mechanisms of intervention: Theraplay® activities – staff felt the individualised nature of Theraplay® activities matched the child/children's needs	No quote was reported to support this theme	**1** Francis 2017	ML: Moderate concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very low**	Only one study contributed to this theme. One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns.
Mechanisms of intervention: Consultation with staff – staff valued the additional sessions and having protected time for their own well-being and learning.	No quote was reported to support this theme	**1** Francis 2017	ML: Moderate concerns C: No concerns A: Serious concerns	Only one study contributed to this theme. One high risk of bias study. Unclear description of thematic

			R: No concerns **Overall:** **Very low**	analysis, No triangulation, respondent validation, or the use of more than one analyst.
Outcomes: Increase in positive relationships with peers and key adults.	No quote was reported to support this theme	**1** Francis 2017	ML: Moderate concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very low**	Only one study contributed to this theme. One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.
Outcomes: Increase in engagement with education – school staff noticed improvements in attendance, the children following adults' requests, and their attention and concentration.	No quote was reported to support this theme	**1** Francis 2017	ML: Moderate concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very low**	Only one study contributed to this theme. One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst. The themes were not fleshed out meaning a convincing theoretical explanation for the

				patterns found was not provided.
Outcomes: Increase in confidence and self-esteem.	No quote was reported to support this theme	**1** Francis 2017	ML: Moderate concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very low**	Only one study contributed to this theme. One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.
Outcomes: Increase in positive behaviours.	No quote was reported to support this theme	**1** Francis 2017	ML: Moderate concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very low**	Only one study contributed to this theme. One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.

Outcomes: Increase in enjoyment and engagement – children reported enjoying the group, making friends and feeling happy; some children shared the activities with their carers at home.	No quote was reported to support this theme	**1** Francis 2017	ML: Moderate concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very low**	Only one study contributed to this theme. One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst.

Table 51: Summary CERQual table (Experience of looked after children and youth undertaking Life Story Intervention)

Themes	illustrative quotes	Studies*	CERQual concerns	CERQual explanation
Intervention was enjoyable – When asked what the intervention was like for them, most children characterized the experience as enjoyable, especially their relationships with the community clinicians who were described using words like “cool,” “fun” and “great”. For 14-year-old Brad, it was important that Lynn was “a local person.”	*"It helped that I already knew Lynn from before. She lived around here so I'd seen her around the area and one of my brother's best friend's mother is Lynn's daughter…." Looked after young person*	**1** Haight 2010	ML: Minor concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study of moderate risk of bias was included. This study was marked down for quality due to lack of clarity regarding recruitment for interviews, or the method of thematic analysis. Non-UK based study.
Someone to talk to – When asked how the intervention had been helpful, several children discussed the importance of having someone to talk to, especially about problems. Jason, aged 12, explained that it is hard for him to talk about his family, but that it felt good to share his memories with someone. Brad, whose foster mother maltreated him emphasized Lynn's role both in talking with him and in	*“I talk about my family to her and usually to no one else….It just washes some of the stuff away from ya.” LAC* *"…most of the time we just talked about things. Usually it was problems I was having with B*	**1** Haight 2010	ML: Minor concerns C: No concerns A: Serious concerns R: Minor concerns	Only one study contributed to this theme. One study of moderate risk of bias was included. This study was marked down for quality due to lack of

helping him resolve specific ongoing problems.	*(foster mother) or something like that… it's just having somebody to talk to. Somebody I know that I can talk to that understands… it's like kinda relieving to know that somebody else listens to you and understands you and cares about what's happening to you…She (Lynn) understood everything I was going through and kinda helped me with it…." LAC*		**Overall:** **Very Low**	clarity regarding recruitment for interviews, or the method of thematic analysis. Non-UK based study.
Initial anxiety about talking about experiences - Children also discussed challenges and limitations of the intervention. A number of children described initial anxiety about talking about their experiences. Although his initial anxieties were resolved, Jason recommended that in the future we better prepare children for the experience of meeting and talking with an adult.	*"I didn't want to talk…. It was like, oh my God! I don't want to do this." Tom, aged 15, described that his anxieties resolved as he formed a relationship with Laura: "At first, I wasn't sure because I'm not really big on talking to people unless it's my mom or my grandma.... And Laura, she just, I felt something about her that I could just tell her anything…." LAC*	**1** Haight 2010	ML: Minor concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study of moderate risk of bias was included. This study was marked down for quality due to lack of clarity regarding recruitment for interviews, or the method of thematic analysis. Non-UK based study.
Reluctance to revist the past when trying to start a new chapter – Mary, aged 10, however, remained ambivalent about talking about her experiences. Mary felt that she had only been helped "a little…because it's like, I'm tough. I don't like to listen to people. I'm hard headed." She did, however, recommend the intervention to other children because Gayle: "…can really help you get out your feelings… keep doing what you're doing and helping kids know that it's alright to express your feelings… as long as you get them out and don't get pulled back in them again…"	*"I really didn't like it…I don't know why…I just didn't like it at all… But then, after a while it was kind of fun... and then I didn't like it and we had to talk about my past tense and I just got out of that and I was feeling like I was being pulled back in…and she asked me, "Do you want to talk about your family?" and I said, "No."... Because I'm trying to get over what's happened in the past and I'm trying to start a new one.…what I'm trying to say is*	**1** Haight 2010	ML: Minor concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study of moderate risk of bias was included. This study was marked down for quality due to lack of clarity regarding recruitment for interviews, or the method of thematic analysis. Non-UK based study.

	that I really didn't like talking about my past."			
Continuity of care and sadness over the shortness of the intervention – A number of children also expressed how much they missed their community clinicians, and their sadness that the intervention was not longer.	No supportive quote was reported for this theme	**1** Haight 2010	ML: Minor concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study of moderate risk of bias was included. This study was marked down for quality due to lack of clarity regarding recruitment for interviews, or the method of thematic analysis. Non-UK based study.
Bond and relationship – Caregivers' perspectives largely echoed those of the children. When asked about themost important part of the intervention,most described the time spent with the community clinician as enjoyable to the child. They valued the opportunity for the child to “bond” and to have “one-on-one timewith someone other than the family and foster family,” and to “trust someone other than Mom.” A number of caregivers developed supportive relationships with the community clinicians, which they found of emotional and practical help when dealing with children's difficult behaviors.	No supportive quote was reported for this theme	**1** Haight 2010	ML: Minor concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study of moderate risk of bias was included. This study was marked down for quality due to lack of clarity regarding recruitment for interviews, or the method of thematic analysis. Non-UK based study.
Need for longer interventions – Their primary suggestion for improvement was to extend the time of the intervention beyond the seven months.	No supportive quote was reported for this theme	**1** Haight 2010	ML: Minor concerns C: No concerns A: Serious concerns R: Minor concerns	Only one study contributed to this theme. One study of moderate risk of bias was included. This study was marked down for

			Overall: **Very Low**	quality due to lack of clarity regarding recruitment for interviews, or the method of thematic analysis. Non-UK based study.
Importance of setting – Michael's foster mother appreciated that his community clinician came to himat home,which was more comfortable to both her and Michael	No supportive quote was reported for this theme	**1** Haight 2010	ML: Minor concerns C: No concerns A: Serious concerns R: Minor concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study of moderate risk of bias was included. This study was marked down for quality due to lack of clarity regarding recruitment for interviews, or the method of thematic analysis. Non-UK based study.

Table 52: Summary CERQual table (Experience of looked after youth undertaking Mindfulness-based stress reduction)

Themes	illustrative quotes	Studies*	CERQual concerns	CERQual explanation
Incentives are a motivating factor for youth to participate in the group	*"I wouldn't come to the programme every week if i were not getting paid for it. I would come sometimes though" - 14 year old african american male subject*	**1** Jee 2014	ML: Moderate concerns C: Minor concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study of high risk of bias was included. This study was marked down for quality due to lack of clarity regarding interview methods, thematic analysis, or validation of themes. Non-UK study. The themes were not fleshed

				out meaning a convincing theoretical explanation for the patterns found was not provided.
Youth enjoyed being in a group with others were similar to themselves	*"He can use all of the social outlets available to him. Although this was a foster care group, I think he appreciated knowing he was not alone and there were others that may struggle with his issues." - Caseworker of 15 year old white male subject*	**1** Jee 2014	ML: Moderate concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study of high risk of bias was included. This study was marked down for quality due to lack of clarity regarding interview methods, thematic analysis, or validation of themes. Non-UK study. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.
Youth demonstrated gains in social skills, both short term and long term gains	*"the youth learned necessary social skills with exposure to the other teens participating in the program. She became more aware of other's feelings" - foster mother of 15 years old African American female subject* *"The youth is not using her situation as an excuse since participating in the program. She is starting to recognise that she has some control over her life" - Foster mother of 17 years old, White*	**1** Jee 2014	ML: Moderate concerns C: Minor concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study of high risk of bias was included. This study was marked down for quality due to lack of clarity regarding interview methods, thematic analysis, or validation of themes. Non-UK study. The themes were not fleshed out meaning a

	female subject			convincing theoretical explanation for the patterns found was not provided.
Youth showed changes in responses to stress, both positive and negative changes - positive changes	*"this program should go out to the community outside of foster care to impact others. I have been to therapy before but this group programme is much better. The therapist isnt bringing up the past or antagonising you. The program helps to move forward and doesn't focus on the past. If there was no money given, i would still come as I need all the help i can get." - 15 year old African American female subject - negative changes* *"She learned to eliminate some of her stress but as far as behaviour wise she still has some extreme behaviour as far as attitude and things like that. She learned to eliminate some of her stress by doing some of the quiet things she likes" - Foster mother of 15 year old African American female subject.*	**1** Jee 2014	ML: Moderate concerns C: Minor concerns A: Serious concerns R: Moderate concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study of high risk of bias was included. This study was marked down for quality due to lack of clarity regarding interview methods, thematic analysis, or validation of themes. Non-UK study. The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided

Table 53: Summary CERQual table (Experience of project co-ordinators, senior managers and social workers, local authority staff and looked after children undertaking a peer mentoring intervention)

Themes	illustrative quotes	Studies*	CERQual concerns	CERQual explanation

Mentoring and increased mentee confidence - gaining a friend – Several of the mentees felt that having a mentor amounted to gaining a 'friend'. Pilot mentee 2. One mentee had entered the care system as an unaccompanied minor 6 months previously. She spoke very little English and she had been nervous about meeting her mentor because of this. However, she reported that her mentor had encouraged her and helped her to feel more confident about speaking. One mentee reported that she had felt confident about discussing her sexual orientation because of her mentor's empathic and non-judgemental approach when they had first started to discuss sex and relationships: Another mentee described feeling more confident about asserting herself appropriately with boys, rather than just becoming angry, as a result of her conversations with her mentor: Another mentee felt that spending time with her mentor had broadened her mind and encouraged her to be more open, which had reduced her stress levels. At follow-up she believed that she was less likely to get angry with people.	*"I feel a bit more confident about deciding – like making decisions . . . as a mentor, they don't really see you as a teacher to student thing, they see you as a friend, so somebody you can relate with, have just a talk, or just hang out with." Mentee* *"'When I want to say something and, you know, she could understand [my English] and she say to me "say it" . . . so yeah, I can say anything to her'" (LA2 mentee 2001).* *"She kind of taught me don't let people judge me like, just be who I want to be. If they don't like it then obviously they are not my true friends . . . I've gossiped about my sexuality with her, because I think . . . when I was younger . . . at the time I had a group of friends which was proper anti-gay and anti-lesbian, so I couldn't really play on it. But now I've got older and I don't really care what people say. I'm just me, if you like me, you like me. I've learned to open it and I've spoken to her about it. I think that's the first time I actually spoke about it properly and actually decided like d'you know what? Actually I do like girls, and if you don't like the fact that I like girls then you don't have to be my friend." Pilot mentee 3.*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

	"Well she used to say to me, 'you can't always beat your boy up, you have to like let them look but they're not allowed to like come to you, because obviously if you don't want to be talking to them and you don't like them, you don't have to' . . . I still hit them [boys], but I'm a bit kinder." LA1 mentee 1007. *"I don't know whether it's just me growing up, or in a way . . . while she was there I think maybe I was like opening up myself . . . opening up did kind of release certain stress. Because I'm used to just bottling everything up, and then one day I'll just have a meltdown and that's when I'll overdose myself. And that's when I'll go out and then I'll sleep with like 10 different men or do something stupid, to harm myself." Pilot mentee 3* *"Nowadays people could step on my foot and I'll just blow it off, like literally because I think just life's too short. And this time last year I would have probably got arrested for someone stepping on my foot because I would just turn around and get mad." Pilot mentee 3.*			
Mentoring and improved mentee decision making - Mentees reported benefits from being able to engage in positive leisure pursuits with their mentor, including being	*"It's like if you see my set of friends . . . it's like I need to stop – what's it called? Not stereotyping .*	**1** Mezey 2015	ML: No concerns C: No concerns	Only one study contributed to this theme.

able to make more positive decisions and 'good choices'. For example, one mentee said that her mentor had helped her to realise that that she tended to be somewhat judgemental of other people, which had limited her social interactions and engagement. She had learnt that it was important 'not to judge a book by its cover' and to try to be a bit less judgemental, which had in turn begun to open up her social network. Another mentee reported that her mentor had helped her to realise that she needed to broaden her horizons, which had previously largely been focused on impressing the opposite sex. Mentees also reported feeling more confident in being able to make the right choices in other important areas, including education and family life.	*. . I need to stop having a type basically. Like because, to be honest, like my next-door neighbour she's more into her jobs and stuff so I wouldn't really be her friend because she's . . . like they say a 'nerd' init? She's more of a nerd and I'm more of I dunno, a problem, because it's me that's bad. So I wouldn't really be her friend . . . so I think now I'm gonna start like making friends no matter what they are like . . . I should just be friends with everyone." Pilot mentee 3.* *"I think that it should be for most girls now in care, living by themselves – I think this would be good for them . . . because I know a lot of depressed people and I think they just need someone, not from the area, to take them out, to show them that, look, you don't have to get ready, put on make-up and go meet a boy, it's not all about that. 'Cos that's what I used to do. You don't have to do that." Pilot mentee 3.* *"When I was younger, thinking I don't care about my future, I've still got a long time to go, but then it comes quite quick and you've got to think about what you're gonna do; so you should know from a long-off . . .'cos before I was choosing my GCSEs and like she*		A: Serious concerns R: No concerns **Overall:** **Very Low**	

	was saying, 'go for what you enjoy for' and stuff so I went for that, I enjoyed what I was going to, like I hopefully want to go into . . . like when I leave school and get a job." Pilot mentee 4. *"She tried encouraging me to see my family more and everything like that . . . it was just general encouragement to be honest. But there was a time where she said you need to take a step back because like my family problem was getting to like an extent that I couldn't handle." LA1 mentee 1006.*			
Mentoring and increased mentor confidence The majority of mentors said that being a mentor had given them a sense of responsibility and had also helped them to feel more confident, in terms of their social interactions and when required to tackle new and unfamiliar situations. One mentor said that through having a mentee she came to realise that her anxiety in social situations 'just means this person is new to me' and was something that she could overcome. Another mentor said that she had applied that confidence to more practical challenges.	*"I feel a bit more confident. Like before like, I'm not gonna lie, before if I used to see a teenager I'd be like oh my gosh, like what do I say to them . . . whereas now I'm a bit more like open. Like before I'd think, oh I bet they're up to no good . . . whereas now I'm a bit more like, I wonder what's going on for them, I wonder . . . how they're feeling?" LA1 mentor 15* *"Whereas before I would, I would try and get someone else to ring for me, like, or, or even other calls like housing, I'd always try and get someone else to ring, 'cos I'm not really . . . but from that [mentoring] like I had to ring the girl myself.*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

	Like I ring people now, like I'll ring them and be like, I need . . ." mentor			
Mentoring and increased mentor self-efficacy A number of mentors talked about a sense of satisfaction in having been able to persevere with the mentoring in spite of things having been difficult. Pilot mentor 3 referred to how telephoning her mentee, organising meetings and encouraging her mentee to meet her had given her a new-found 'sense of responsibility'.	*"I've learned how to interact more with young people and seen the difficulties that staff face when trying to get hold of the young people and stuff like that; 'cos they are not very committed and not very consistent . . . But even myself I wasn't very consistent, but I learnt . . . I want to get more involved, like to build a relationship more, I want to see in the start and then finish" Pilot mentor 3*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Mentoring and change in mentor attitudes Improved attitudes and interactions with others were frequently attributed to the experience of mentoring, including the development of patience, tolerance and understanding and open-mindedness in speaking to younger people. Mentors gained an understanding that people have different needs, work at their own pace and, with support, must make their own decisions. One mentor talked about how her experience had made her decide to seek further experience, carrying out advocacy work with young people.	*"It helped me to be more patient, because I'm so impatient . . . I'm still impatient but I'm working on it . . . I'm more tolerant now. Before I weren't tolerant. I'm surprised I didn't quit . . . it helped me now, in this job that I'm at now, the Children's Home, you know I look back and I think [mentee 1007]'s a saint, even though she's difficult . . . working with [mentee 1007] was a foundation of building my speaking skills a bit more, dealing with challenging behaviour a bit more and . . . having patience and being tolerant . . . try and get people to listen, you know try to, you know advocate, empower people to like change or whatever." LA1 mentor 4.* *"With pilots you know that*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

	everything isn't airbrushed out and . . . so it's not gonna be perfect . . . I think the positive that I can take from it is that it's made me even more eager to kind of get out there and do something, which was . . . kind of how I come across the whole advocacy thing." LA2 mentor 11 *"It's very difficult in terms of education because I've sort of been there, done that sort of thing and it's very hard for me to step out of the box and think this is her life and she's got to decide . . . and you've got to take it at their pace. Okay you might be an expert but they're an expert in their own sort of background and their own, whatever is happening in their life." Pilot mentee 1.*			
Factors affecting engagement - non-judgemental attitude – Because many of these young people were very used to being judged or criticised by others, the idea of having someone to talk to from outside their friendship or social network who would not judge them was very appealing. Mentee 1006 valued the fact that her mentor did not simply tell her off or panic after she disclosed that she might be pregnant, but offered her help and practical advice to deal with the situation.	*"She tried helping me out saying do you want me to come [to a clinic] and everything. I was like okay. And then like I found out I wasn't [pregnant] anyway . . . it was really calm. Like if I told my friends, my friends would panic; they would be like 'oh my God, you're pregnant' da-da-da, they wouldn't, they wouldn't stop and kind of go you might not be." LA1 mentee 1006* *"I would have them [friends], but then I wouldn't talk to them as*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

	much . . . because they're close to me, so I wouldn't really talk to them . . . because I'm scared in case they judge me. I thought if I had a mentor they wouldn't really judge me 'cos they don't really know me." LA1 mentee 1006.			
Factors affecting engagement - active listening and advising – Mentees in the study said that they appreciated being able to 'offload' to a mentor and to feel that they were being listened to. They also appreciated that a mentor would only offer advice after listening to them and taking their views and concerns seriously. Mentees appeared to differentiate between talking to their mentor and talking to their friends or to an adult in a position of authority.	*'When I see her I get things off my chest and that. So it helps, a lot. Because I'm the type to not really say a lot' (LA1 mentee 1006).* *"Cos she's really down to earth and she just says it how it is, like, she says it straight. Like, she don't use these big political words and stuff like that . . . She just makes me feel really comfortable, like I'm talking to one of my home girls. But at the same time she's not 'cos you know she has that professional side to her . . . it feels good." Pilot mentee 3*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Factors affecting engagement - sharing personal experiences – During the training, mentors were encouraged to think about the aspects of themselves that they would like to keep private and those that they would be happy to discuss. Limited self-disclosure by mentors of personal information was often quite useful in facilitating difficult conversations.	*"I'll be like 'So tell me about your love life?' and then I just like mention something minor about mine or whatever, or 'mine's dead boring' and then I realise it makes her talk a bit more." LA1 mentor 4* *"Because it wasn't just me opening up, it's not like someone's asking questions and I'm answering, it was both – like she'll tell me stuff about her current life and I'll tell her something about mine, so it's like we are both really trusting*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

	each other, and I saw that she trusted me, when like she told me stuff about her and her boyfriend and I think her son . . . so I thought okay, then I'll tell her stuff about me." Pilot mentee 3			
Factors affecting engagement - Advocacy and signposting to support – An important part of the mentor role was the mentors using their knowledge and experience of the care system to support mentees with their issues in care.	*"And then we were talking about getting my passport done and she got in contact with my social worker and pushed him to do it – that got done." Pilot mentee 2* *"I even said to her . . . advised her like did she know places like Children Right's Officer, things like that . . . 'Cos, honestly, myself, I never knew about all that, until, you know . . . when I start learning about all those services it was a bit too late really . . . I was trying a little bit just to put her into that, and say to her 'We can meet those kind of people, they can explain things to you if you don't understand'." LA2 mentor 9*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Factors affecting engagement - Maintaining confidentiality – Mentees appeared to appreciate the fact that whatever they told their mentor would be kept confidential, but they also understood the limits of that confidentiality. It was also important that the mentor was located outside their usual social network in terms of facilitating disclosure of sensitive information.	*"It's good . . . because I know . . . things that I told her and if I told like my other friends – I'm not trying to say they will tell other people – but somehow it always ends up coming out – but I know for a fact 'cos she don't know no one that I know, no one that I know would come back to me and be like 'Well I heard she said this' because it can't happen . . . So that's why I liked her." Pilot*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

	mentee 3			
Factors affecting engagement - offering new opportunities – Some mentees felt that having a mentor had given them opportunities to do new and exciting things or to have new experiences.	*"She's just so different. And like, you know whereas I'll wake up and I'll ping [call/text] my friend and be like, 'So what's the motive?' and she'll be like, 'Can we go link [hook up with] a boy' – she'll [my mentor] be like, 'Can we go shopping?' . . . I mean my usual group of friends it will be like a special occasion. Like for us [friends] to go ice skating it would be like 'oh my God we're going ice skating' but for me and her it will just be like 'Yeah, it's just ice skating'." Pilot mentee 3*	**1** Mezey 2015	ML: No concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. The theme was not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.
Factors affecting engagement - Persistence – It was difficult to assess why some mentor–mentee pairs were able to sustain a relationship over a period of time whereas others fell by the wayside at a relatively early stage. Some mentors withdrew from the intervention when faced with a difficult or reluctant mentee; however, others remained enthusiastic and adopted various strategies to engage their mentee and persevered with the relationship.	*"I say let's do something different, but she keeps on wanting to go cinema . . . I said we can do other things you know? I go if you wanna go to a show or do you wanna do something that's involved with sexual health? Sometimes you can go [to a] clinic and book an activity . . . I said to her we could do ice skating. I go we can do anything; it can be sport – to get fit or whatever . . . It helps you find her a little hobby. But, no, she seems to just like cinema." LA1 mentor 4*	**1** Mezey 2015	ML: No concerns C: Minor concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. The theme was not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.
Shared experience of care The majority of mentees said that they would rather speak to a mentor than to their social worker about personal issues, as social workers were often too busy fulfilling	*"Having someone like her . . . a mentor that isn't a social worker, who I can talk to about problems, and then yeah, just to get a bit of*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns	Only one study contributed to this theme.

statutory requirements to listen to them or to support them with emotional issues. At the end of the mentoring period, when the mentees were asked if there was any more support that they required. Social workers also felt that they would be less effective than peers at engaging the young people in conversations around intimate issues, both because of the age gap and because they tend to be viewed rather negatively and mistrusted by the young people they work with. The majority of those aged 14–18 years (seven of the 11 who spoke about it) considered that it was important that their mentor had some experience of care, as it made it easier to relate to them. One of the mentors also considered that her experience of care had helped her to empathise with and build up a relationship with her mentee. However, mentees also considered that it was important for their mentor to have a genuine interest in them and to support them, regardless of whether they had been through the care system themselves.	*space away – like with someone that's older . . . so she could give me advice." LA2 mentee 2008.* *"I think it's really difficult for looked-after young people to talk to social workers. I think that although social workers are skilled in communication, I think they know that if they share too much information that social workers might have to act on that if they feel it's a child protection issue." Social worker* *"This is what I thought, 'Anyone who's working with me, they're going to report back to my social worker 'cos that's their job' . . . when I speak to a lot of young people they said the exact same thing." Mentor* *"Someone was actually in your situation so they knew what they've also been through and what you had been through, instead of saying 'Ah, I know how you feel' when actually they don't know nothing how you feel . . . it's like teachers say 'Yeah, I know what you're going through' and it's like, no you don't, shut up [laughs]." Pilot mentee 4.* *"There was one girl that come up to me, and she was like 'I just miss my mum, I don't understand' . . .*		R: No concerns **Overall:** **Very Low**	

	and she just broke down crying. One of the other members of staff she come over and she was like 'Oh it's alright, it's alright' and the girl flipped out. And then I went over and I was like 'Look, I've been there, I've come through now, like look at me' . . . and I kind of explained a little bit of my story without trying to traumatise her and by the end she was like 'Oh', she was like 'You went through that?' and I was like 'Yeah'. And she was like, 'And you're like this now?' and I was like 'Yeah' and she was like 'Oh'. And then she kind of went off and toddled and carried on." Mentor *"You're more likely to open up to someone who has been through what you've been through, but at the same time, she [a previous mentor] was the one who invested in my life the most, and you know, she came from like a really good background . . . and she had a lot to offer me." LA1 mentee 1009.*			
Matching – Mentors and mentees tended to value having some common background or interests. Three pairs with a shared Caribbean background and one pair from Central Africa commented about the importance of this. One of the mentors had attended the same college as her mentee, which they had been able to discuss. Another pair discovered a shared interest in fashion. Professionals also identified location as an important matching	*"It's like when I was talking about my mentor having certain traits 'cos we're both from the Caribbean, like, it's like one simple thing. People might think, ok, so what? You're both from the Caribbean but it's just that certain factor, that, certain things we've both been through together. It just*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:**	Only one study contributed to this theme.

consideration, although one of the most successful relationships involved the mentor having to travel across London, from her university, to meet up with her mentee.	*makes it easier." Pilot mentee 3.* *"She's just really good; she understands me . . . she's like Caribbean as well. And obviously I'm half Caribbean as well so we are like get on very well." LA1 mentee 1007.* *"You think if people have got a gym, if the gym is right by your house 10 minutes away, you're going to go. If the gym means that you have to get a bus or train, you're not going to go." LA2 SW*		**Very Low**	
Information sharing – Overall, there was a consensus amongst professionals that mentors should be given any relevant information about a mentee that might impact on their ability to mentor that they should be alerted to issues that could potentially arise during mentoring. When this issue was discussed at a focus group, social workers were concerned about historical information about a mentee being disclosed, as the situation for the mentee may have changed. However, they also agreed that sometimes it would be in the best interests of the young person to share certain sensitive information with a mentor.	*"When you read some of our young people's files there could be something that happened, what 6–7 years ago, and you look at them and you just judge them sometimes before you've even met them. So sometimes it's better to not know anything." LA3 SW* *"I suppose, I was just thinking about one of my young people and I was thinking she's been sexually abused, and I just . . . wonder if somebody goes bowling in there talking about pregnancy and sex and all thoughts of things, they're not aware of some of the issues of the young people. How it might cause more harm than good." Social worker*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

Preference for group mentoring as well as one-on-one mentoring – Mentors and mentees were asked for their views on the format of the mentoring sessions. Eight out of 12 mentors, as well as three mentees, expressed a preference for group mentoring in addition to one-to-one meetings. Mentors and mentees felt that group mentoring would accelerate the bonding process between pairs, encourage a more relaxed atmosphere and open dialogue, increase confidence, widen their social networks and encourage additional one-to-one meetings to take place. One of the mentors in LA2 recalled group meetings that she had participated in on the CiCC, which she felt would be a helpful model to adopt in the mentoring project. One of the mentors thought that a group setting would be useful for SRE and another felt that it would encourage mentees to engage with other LAC of a similar age, thereby increasing their social network.	*"I think what we can do once a month at least . . . have a meeting where both mentees and mentors come together; like you know at the [LA1 mentoring project] they come every single . . . you know Monday 5 pm – all of them in one place . . . once a month you all come in, you know and do an activity together . . . at least then you can guarantee that once a month they've actually met . . . and then from then onwards see whether it's actually going on, you know after that meeting . . . and if that doesn't work I think you should just make it to be that every single week they all come in – like you know how the [LA1 mentoring project] does? 'Cos they all come in, every single week." LA1 mentor 6.* *"In [CiCC] we used to have meetings once a month . . . when we meet we just sit around the table talking about everything concerning young people in care, law, everything. But when we speak about that we get to know each . . . even when we meet each other on the street, it's like . . . that's your family . . . we know each other for other things than the world outside, because we all come from the same background . . . so it's kind of our secret you see?" LA2 mentor 9.*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

	"I would like to do a group thing like and teaching them like sexual health . . . but they can talk about other stuff that's on their mind as well, 'cos er, a lot of teenagers do need that – as they tell me." LA1 mentor 4. "In a situation where she [mentee] is really happy and things are settled for her so she's not seeing you, so she's only using you for like crisis points, could we not all do something where we all met and then we all sort of know that we're all in a similar boat." Pilot mentor 1			
Barriers to engagement - unreliability – Mentees would often agree to attend a meeting with their mentor but then would alter the time or place of the meeting, without notice, or simply fail to turn up. Reasons given for not turning up included too much school work, seeing friends and 'bad weather'. This led to some mentors themselves feeling let down and demoralised. One mentor said that she ended up feeling 'like a teacher trying to find a, you know a primary school kid, chasing them around the playground' (pilot mentor 2). Even when mentees were not required to travel far to meet their mentor, they were often unmotivated to make the effort. To address the issues of non-attendance, mentors usually had to go to where their mentee was, rather than expect the mentee to come to them. As some young people said that they did not like having to engage with social workers, it is perhaps unsurprising that one of the barriers to engagement was the mistaken belief by mentees that the mentors were part of social services provision. It is perhaps not surprising that mentees find it difficult to build up trusting relationships and are likely to regard any new	*"I initiated contact and I spoke to her, everything seems fine, she was willing to meet me and everything. But when it comes to meeting up it's . . . either she cancels or she never shows." LA1 mentor 20.* *"You do get young people that will be like yeah yeah and that meeting would be their number one priority and then someone else, like a friend will come round oh let's go here so, it will always just change." Pilot mentor 5.* *"'Cos sometimes like I'll have one of them lazy days when I'll just . . . don't want to go nowhere and I just want to stay in my house and . . . It's like if she came to get me – I*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

people introduced into their social orbit with a degree of suspicion, particularly if they themselves have not chosen them. Pilot mentee 3 started off from a position of mistrust and suspicion; however, her position later started to shift, particularly in response to her mentor disclosing information about herself. It may be that the mentees in those relationships that did not last long, or that were inconsistent, never got to the point of trusting their mentor enough to be able to talk about things that were important to them. Even when a mentee appeared to have engaged well with a mentor at one meeting, this did not mean that they would necessarily turn up for the next one, which often left the mentors questioning their judgement and whether they might have done or said something wrong. Overall, non-engagement of mentees appeared to reflect their ambivalence about the intervention. The researchers also encountered a lack of motivation and 'mixed messages' regarding engagement and often had to rearrange meetings with mentees after they failed to show up, without providing an explanation or an excuse. One PC expressed the view that LAC may find it hard to express their opinion about whether or not they want to participate, possibly because they feel so disempowered, and so they end up voting with their feet, by not turning up or not responding to phone calls. Some mentees may have found the mentoring encounters too anxiety provoking and therefore withdrew, or they may not have appreciated the importance of not letting other people down. Professionals also considered that these young people may experience difficulties in planning ahead and organising, or taking control over their lives, so that if something better comes along they will simply go with whatever seems easiest.	*know it sounds lazy, but if she came to get me then obviously I wouldn't mind going, but I don't really . . . I like travelling but sometimes I don't." Pilot mentee 3.* *'It takes me a while to get close to someone and become friends with someone or, until I trust someone. I thought it'd be hard for me to do that' (LA1 mentee 1001).* *"That made me feel like oh maybe, they don't want to meet us, because for myself I know like sometime[s] you don't really want to talk to someone . . . they were all scared . . . maybe they thought like we were part of social services." Mentor* *'I will never fully trust someone innit, but I do trust them to a certain point – but you can never really give anyone your full trust can you?' (pilot mentee 3).* *"I mean on the first day she was quite open . . . 'cos we did have some sort of similarity in terms of education 'cos she went to the same college as I did. So I mean from the word first go I mean we was chatting from start to end. That's why I think she felt comfortable . . . but I think, the problem is . . . It's just about getting her here . . . I mean I've*			

	told her many times I don't mind going to obviously where she [lives] . . . it's just about obviously getting that time. 'Cos when we did get that time it was quite nice." Mentor			
Barriers - personal lives and mentor committments - Some mentors acknowledged that, despite their best intentions, personal and work-related issues impacted on their ability to fulfil commitments. Mentees reported that mentors did not always communicate with them when other commitments made it difficult for them to keep up with their mentoring role. One mentor failed to inform her mentee that she had a job interview and could no longer make the arranged meeting. This frustrated her mentee who, when asked for her views on what an ideal mentor should do, responded 'just turn up'. Many LA professionals expressed concerns about the vulnerability of the mentors and the extent to which they would be able to separate their own issues from the mentees' issues. Some of them also had to deal with family issues, domestic violence and/or mental health issues. Moreover, a number of the mentors were juggling other commitments during the mentoring period, including college, work and childcare responsibilities.	*"She said she is busy in Christmas and everything and I was like ok, just contact me like when do we want to meet and stuff, and then after there was no contact for . . . a couple of months and then yeah we got back in contact again and then she was, she just kept saying oh it's busy and everything . . . and then afterwards, yeah, we was in contact and then it just fell back again" LA1 mentee 1006.* *"With any study that you do, when you're working with looked-after young people, it's whatever's going on for them is gonna always take precedent because that's how they've been growing up; you know because they are in the care system." LA1 PC1*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Problems - managing money and diary entry - Although there were several examples of mentors who fulfilled the responsibilities of the mentoring role, there were a greater number who, in some form, breached the terms in the mentor contract. Issues included not collecting receipts for money spent, running up large phone bills on calls not related to the project and keeping money for their own use: In one case a mentor confided in her mentee that she felt irritated that other mentors were spending money on themselves and not spending it on the	*"I know that she wasn't spending all that money on that 'cos I was getting the receipts and like I'm thinking look at this baby stuff on it . . . I was like 'did you actually go out with your young person?' [she said] yeah, and then she was like but I forgot the receipt, so I just gave you one that I had." LA1 PC1.*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

mentees. The mentee believed that this was 'out of order' but was also content in the knowledge that her mentor 'would never do that'. In relation to excessive phone usage, the PCs felt that it was difficult for them to challenge the mentors about what had occurred and, without proof of any wrongdoing, they were reluctant to take action. Anecdotal evidence suggested that one or two mentors were attending the support group meeting solely for the purpose of collecting vouchers as a reward for their role, even if they were no longer making attempts to meet regularly with their mentees. There was a clear indication from social work professionals that, when mentors were not fulfilling their role, they should not receive the full £40 voucher payment. Yet, in LA1, the PC took a more lenient approach. Only two of the mentors made regular diary entries, despite weekly text message reminders from the researchers. LA1 PC1 noted that, apart from the monthly support group meetings (which some mentors did not attend), she lacked information about how often mentors were seeing their mentees and this made it difficult to impose penalties. The PCs and one mentor thought that it would have been helpful for data from the diaries on the frequency of contacts to be made available to the PCs and that they should give the full voucher payment only to mentors who had completed the diary.	*"And if it turns out that actually I get the bill and it's like 'hang on'– right? . . . there's a mismatch here right? Then that's a different conversation yeah? . . . but without evidence . . . I'll ask the question and I'll challenge and I'll look at you hard – but if you're sticking to your guns what . . . where's my proof?" Programme co-ordinator* *"Some of the mentors – I think they know the loopholes of the whole mentoring programme . . . they know that every single month PC1 is going to send a text saying, 'Ladies, let's meet up soon', as long as they say 'oh I've been trying to call, they haven't picked up', PC1 will say – you know, she'll say why haven't you done this, why haven't you done . . . but after that they'll still get their payment, and that's all they want – really and truly." PC* *"I never did tell them they couldn't have their money . . .'cos I do think there's a conflict of interest. Because they will, no matter what they'll take it out on you. You know, and I've got to continue working with them after the study has finished. So I just gave it to them, but for me it's about working with them to empower them to do their role . . . it would be different if*			

	I was running it. If it was my project . . . I would tell 'em straight, you know, 'you're not getting paid if you're not doing your work'. But you know, it isn't my project." This PC acknowledged that 'they all knew what they were doing wrong . . . and all said what they had to do, and they all did nothing'. PC			
Barrier - Dual role - motherhood and peer mentoring - Five out of 10 mentors who met with their mentee had a child and most of them were single mothers. For the majority of mentors, childcaring responsibilities had a negative impact on their ability to give time to a mentee.	*"I wouldn't have minded to see her continuously 'til it finished, but it was literally just that I had so many things to do, for myself, being a single mum which was a bit difficult. Yeah, I think that was the most difficult thing." LA1 mentor 18.* *"She had a child and she had her job to do as well, so it kind of depended on both of us, and it's like most of the times she'll be busy when I'm free and then when I'm free, she'll be busy . . . and even in phone calls I will hear how busy she is with her child, so it's like sometimes I'll have to be like, 'D'you know what, deal with your family and then ring after or call tomorrow or something'." Pilot mentee 3*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Pre-requisites for the peer mentor role – In LA3, where professionals experienced difficulties recruiting mentors to the study and retaining them, professionals believed that care leavers needed to have sufficiently 'left the system' to be effective mentors. The PCs in LA1 and LA2 believed that care leavers should be	*"It's far too early and life events are still happening for these 18-, 19-, 20-year-olds you know? And I think, you know, even beyond 25 we're still asking quite a lot for somebody who needs to establish*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns	Only one study contributed to this theme.

given an opportunity to mentor, despite the difficulties highlighted earlier. However, they were clear that, in a future study, PCs would require additional time to work one-to-one with each mentor to ensure that they had the required skills to fulfil the mentor role and to explore their ability to manage their time and emotions over the mentoring period.	*themselves. Chronologically they're not the age we think we [they] are, you know, with our teams. I don't think those young people are where they should be yet and I think it takes a lot of life and a lot of sorting out to get to a place where you do feel comfortable about a 13 – or whatever age – coming at you and asking very difficult questions." PC* *"At the entry point, we need to really be firm in terms of their availability and getting them to think about even looking forward, about the possibility that may have certain things, like courses starting, movement – they might be going through a transition stage, 'cos of moving, etc. Looking forward, there's a number of things that maybe, I think we need to consider in terms of what could possibly change that mentor's circumstances." LA2 PC1*		**Overall:** **Very Low**	
Safety concerns - boundaries – Local authority professionals believed that there was a potential for boundaries between mentor and mentee to become blurred, unless they were well defined by the project and monitored by the PC. Although some professionals had expressed concerns about mentees becoming over-reliant on their mentor, there was no evidence of this or indeed of any inappropriate or excessive contact. However, because of the rather chaotic nature of some of the mentees' lives and their difficulty with time management, some mentees appeared to	*"was in a meeting and they were setting up a meeting of her and her mentor and swapping telephone numbers. And I sort of asked well are there any sort of boundaries around the relationship and it didn't seem as if there . . . they had talked about boundaries, but it didn't seem as if there was any clear kind of guidelines around that." PC*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

expect their mentor to be able to drop everything and see them at a moment's notice, rather as a friend would do.	*"You know she doesn't plan. She keeps on calling me up last minute, like 'Hey girl how are you? Yeah, d'you wanna come and meet up?'. . . 'I'm busy' I said to her and I go, 'I have a very busy schedule' and everything has to be planned with you I'm sad to say." LA1 mentor 4*			
Safety concerns - disclosures – Mentors were told during their training that, if they had any concerns about the health or welfare or safety of their mentee, they should immediately pass on the information to the PC, after first informing their mentee. Some professionals thought that mentors would find it difficult to make decisions in relation to sharing information, because of the potentially damaging effect that it could have on their relationship, and that they would need a lot of guidance and support around responsible information sharing to ensure that the best interests of the child are met. However, within this study, a number of mentors were able to report concerns to the PC without this impacting negatively on their relationship with their mentee.	*No supportive quote was reported for this theme*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.
Safety concerns - unsupervised meetings – Many professionals expressed some concerns about meetings being set up between vulnerable young women, without supervision or without sufficient communication between professionals in the mentee's network. In one focus group it was suggested that allegations of misconduct could be made against a mentor by a mentee. However, the main risk identified in the exploratory trial was of mentors failing to inform the PC where and when they were meeting with their mentee, which was in clear breach of the mentor contract. LA1 PC1 admitted that only one of her mentors regularly informed her of when and	*No supportive quote was reported for this theme*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

where she was meeting her mentee.				
Undesirable effects of the mentoring intervention – For some, particularly when relationships were inconsistent or ended prematurely, there was the potential for the intervention to be harmful to the mentee. One mentee (1001) lost her first mentor, who dropped out for 'personal' issues', and had to be allocated to a different mentor, who also failed to see her regularly. During training, mentors were told that if they were unable to continue a relationship they should make sure that their mentee did not blame herself or feel responsible for the failure of the relationship. However, this did not happen in the case of mentee 1001. Local authority 1 PC1 said that, although she would not go as far as calling the process damaging, because she could 'rectify some of the stuff', she was concerned about the consequences of having an unreliable mentor for vulnerable young women and, in this study, for mentee 1001 specifically. Apart from this case, in the main, mentees appeared accepting of infrequent contact and/or unreliable mentors, possibly because this represented a repetition and re-enactment of past experiences of rejection and abandonment that they had come to anticipate. Several mentors also admitted feeling frustrated or let down when their mentee failed to turn up to meetings or show sufficient acknowledgement of their efforts. One mentor found it difficult that the other mentors had been successful at making initial contact with their mentee whereas she had not.	*"It made me feel a bit upset and then like it did make me sometimes feel like, I didn't see the point in me doing it; I just felt like giving up. 'Cos I've had two [mentors] and they haven't really worked out so well. But then, it kind of questions me, like maybe it's something I'm doing wrong." LA1 mentee 1001.* *"When someone says they're gonna see you, they need to see you. And when someone like mentee 1001 – she was really upset with this whole process and so basically the stuff going on in her brain – it stopped firing."* *"liked the challenge of it but the thing I got really annoyed about – I don't know if annoyed was really the word – is that I knew I could help if given the chance for her to receive my help d'you know what I mean? 'Cos I'm . . . it's like fighting with a wall really – that's how I felt like. I felt like okay I could really help her but if she's not willing to meet me halfway then I can't really help." LA1 mentor 3.*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

Undesirable effects of the mentoring intervention - Professionals were concerned that the study could bring up difficult feelings for mentors and that the mentors were not being provided with adequate support to help them deal with these feelings. Many sensitive issues were covered in the training, which also encouraged reflection on personal issues. One participant admitted to her group that she had drunk a bottle of alcohol because she felt overwhelmed by the discussion the previous day. Another mentor said that meeting her mentee, who was experiencing similar issues to those that she had faced when she was younger, had reminded her of her past, but that she had been able to 'deal with it' by seeking support from the PC. Local authority 1 PC2 reflected that the study had enabled some participants to come to terms with their past.	*"Volunteering for the Carmen project, it made her re-evaluate her own life . . . it's thought-provoking, it has allowed young people to do the reflection, reflective stuff. A lot of them weren't able really to tap in to that emotional need and then sort of articulate that to worker . . . But I've seen the change, and it might have only been a tiny change. For one particular person . . . it's had quite a massive impact, she's going back to university, and she's actually going to do the therapeutic work. Because she suffered sexual abuse, horrific sexual abuse . . . she's started to talk about her experiences, her experience of violence, of being raped, sexual exploitation . . . And I truly believe that if it had not been for this project and her involvement, we had always guessed that something had gone on for her but we did not know to what degree." LA1 PC2*	**1** Mezey 2015	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme.

Table 54: Summary CERQual table (Experience of staff and residents of three children's homes undertaking a Kundalini yoga programme)

Themes	illustrative quotes	Studies*	CERQual concerns	CERQual explanation
Findings - 1. Individual benefits: Participant responses to the practice of yoga postures and breathing techniques, including how they have used these techniques to help themselves in their everyday life. Themes here include mental health (e.g. stress reduction,	*No supportive quote was reported for this theme*	**1** Vallejos 2015	ML: Minor concerns C: No concerns A: Serious concerns	Only one study contributed to this theme. One study of moderate risk of bias. This study did not clearly

sleep, emotional regulation, and energy and concentration levels) and physical changes (e.g. back pain, posture improvement, physical awareness and breathing control). 2. Social benefits: transferable techniques learned during the yoga sessions when interacting with others (e.g. feeling more positive and open to others). 3. Recommendation about the design of yoga programmes in children's home: participant's insights concerning induction and introduction to the sessions, yoga implementation, and continuing yoga practice after the study (e.g. location of the sessions and participation rates). 4. Insights into research in children's home: participant's suggestions to improve the implementation of research studies in children's homes. Themes included promoting engagement among CIC and staff and reducing amount of paperwork.			R: No concerns **Overall:** **Very Low**	describe the method of thematic analysis.
Individual benefits – Participants reported that the yoga sessions offered beneficial exercises that they used in various contexts, such as before going to bed, emotional challenging times at work as well as at home, and to relieve back pain. Participants reported benefits including physical changes (e.g. increased bodily awareness and body posture) and improved mental health by feeling more energetic, relaxed and calmed. All participants focussed on the mental and emotional benefits and less on the physical benefits of yoga as an exercise. Correspondingly, benefits reported by these participants focussed more on changes in stress reduction, sleep, energy and concentration levels, and emotional regulation both during and outside the children's home. Regarding stress reduction, most participants reported positive effects such as feeling able to relax and stay calm. Some staff noticed positive changes on CIC, describing them as quieter and calmer after the yoga sessions. Most participants reported that yoga augmented the quality and duration of their sleep. Many of them used yoga techniques to aid in falling	*"I felt a lot calmer, felt more ready to be able to deal with the issues (S3). […] she does just seem a lot calmer and happy afterwards (S7)."* *"When I'm going to sleep I use that part at the end when you lie down and have to like, relax, to cool down, I use that when I'm going to sleep and its helps me to go to sleep (S1). […] for me sleep was a problem and I don't think it was through exhaustion, and I certainly sleep a lot better now than I did (S9)."* *"I felt really good […] it put quite a lot of things into perspective (S9). I learnt a lot about myself, I think it's given me far more focus in what*	**1** Vallejos 2015	ML: Minor concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study of moderate risk of bias. This study did not clearly describe the method of thematic analysis.

asleep at night. Most participants reported an increased ability to observe and control emotions. Many participants indicated a decrease in their tendency to be emotionally reactive and an increase in the ability to witness their own negative feelings with detachment. Some participants indicated a greater sense of self-awareness and focus on their own health. Regards energy and concentration levels, (Kundalini as energy un-blocker), some participants reported feeling more energetic and being able to focus more on their activities. Physical changes were also reported. An important principle of yoga is learning how to be fully present in the moment-by-moment experience of being alive. Kundalini yoga uses a combination of dynamic postures and breathing exercises to facilitate body awareness. Some staff found specific stretches helpful for their back pain, posture improvement, physical awareness and breathing control.	*I'm doing, I think reflecting and looking back on it regarding focus; it gave me a lot more focus, not just jobwise but life wise […] I'm happier, I'm certainly happier, and I'm certainly a lot more focussed on my health than I was and I say I'm a lot more focussed on me than I was (S9)."* *"She seems more happy and energised afterwards (S7). […] helped me concentrate (S9)."* *"“I couldn't do many [asanas] because of my back injury, but what I did do was some of the breathing exercises and things which I found quite good”, “breathing and control of breathing” (S8). […] yoga's sort of like reignited that interest again [feeling healthy through exercise] […] I regularly do the exercises at home (S9)."*			
Social benefits: enacting togetherness Some participants reported direct benefits from practicing yoga with others, and felt more positive, open to others and, as a consequence, an improvement in their social life in and outside work. Some staff and residents noticed that other people interacted more positively with them. For example, on the first day of the programme we scheduled two evening sessions to allocate CIC and staff from the three children homes (one from 17.00 hrs till 18.00 hrs and the second right after an hour later). One CIC from the second session complained about being “the only girl” and decided not to join in. A CIC from the first group	*"[People are more] positive, they will be like ‘Oh have you done this or that or the other’ and it's more friendly (S1).* *I feel more positive and more open (S4).* *I mean it did make for a good conversation point because we were all having a good chat about it, what we did there and how, we*	**1** Vallejos 2015	ML: Minor concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study of moderate risk of bias. This study did not clearly describe the method of thematic analysis.

encouraged her to join and gave her reasons including: "you should not miss it", "it is great", "it is not what you think", "it will blow your mind" and so on. The young person from the first group agreed to repeat the session to accompany and support her friend allocated to the second group. This example captures the generosity and good intentions of the young person from the first group, willing to repeat the session to ensure her friend would experience the similar benefits that she had experienced. In this altruistic example, mutuality is central and it is facilitating relational depth among CIC as well as acting as role model to staff and other CIC. Some staff and CIC indicated that practicing yoga together brought new opportunities for engaging in conversations related to the yoga practice and it provided a new topic of conversation and opportunities for being together and supports each other.	*had a laugh (S5).* *They'd come back a bit quieter (S5).* *"I have noticed X, who participated the most, who seems a bit more open and a bit calmer afterwards". "She seems more happy and energised afterwards" (S7).* *It was nice to sit down afterwards and it was nice that we all chatted around the table and ate dinner together (S7).* *My friends are surprised that I probably offer them a few more solutions than I used to, I think my friend circle has probably expanded a bit where I've had friends, but they've not been really meaningful, now I take a little bit more of an interest in what's happening to them and I think that they probably recognise that (S9).* *I feel more connected to others (S9).* *Certainly patience with the service user, with the children, I've always had, it's always been there, but I think the way I react now to situations with managers is a lot more focussed and not as reactive, I'm pretty much more proactive than I used to be (S9).*			

Insights on designing a yoga programme in children's homes – Bringing yoga into children's home has unique challenges and opportunities. All interviewees found the yoga sessions enjoyable and most describe them as fun, very good and interesting. Most participants enjoyed the relaxing part and highlighted its calming effects as the outcome they enjoyed the most. All interviewees expressed a willingness to continue the sessions. Nobody indicated any suggestions for improvements, keeping the 1 hr weekly sessions as it was delivered, maintaining its content and the format. While most staff indicated that attendance could improve by keeping the session in-house, a mixture of responses were found among the residents. Questions of implementation among both residents and staff such as "should sessions be compulsory for staff?" came up during several of the interviews.	*"[…] it's opened my eyes to something new (S3).* *"[…] it was a good way [the yoga teacher] delivered it, with the music and doing lots of different quite short exercise and then the relaxation at the end was always nice"* *"I thought it was delivered well and when the young people were around and were engaged then everything went really well", "I think the actual yoga itself was quite good", "Yeah, probably [to continue the yoga sessions]" (S4).* *I enjoyed it all […] meditation techniques on how to breathe calmly and diffuse things with breathing (S5).* *It was clear, it was definitely clear […] would not change anything (S8)."*	**1** Vallejos 2015	ML: Minor concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study of moderate risk of bias. This study did not clearly describe the method of thematic analysis.
Barriers to attendance – Initially, the yoga sessions were offered within each residential setting; however, due to logistic problems, such as the yoga sessions clashing with other after-school activities, participants suggested holding the sessions in a school hall on a suitable date/time to benefit from the larger space and the opportunity to merge all the CIC and staff within a single venue. Participants also anticipated that an external venue could offer fewer distractions and provide a physical distance from the rather stressful residential settings. Having the yoga sessions within the	*"I think it was great having it in the house, for the kids, it helped who was a little bit nervous of what to do, and rather than her just refusing, she was there and she was witnessing it and she could see all the people that were joining in and that sort of encouraged her to join in as well, I think it would need to remain at the home" (S3)*	**1** Vallejos 2015	ML: Minor concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only one study contributed to this theme. One study of moderate risk of bias. This study did not clearly describe the method of thematic analysis.

school premises did not suit one of the children's homes because of the long distance they had to travel and, consequently, it was finally decided to merge only two of the children's homes in a nearby church hall and continue with the in-house yoga sessions for the more outlying children's home. When participants were asked about the location, only one indicated a preference for having the sessions in an external venue, while most of the interviews stated that having in-house sessions could improve attendance. Participants reflected on the low participation rates expressing that some staff felt they did not have enough time to attend the sessions or that some CIC were not eager to attend. This meant that the young practitioners supporting those CIC were also unable to attend.Most staff felt that they had to attend the yoga sessions and this pressure created a barrier for engagement. Some staff felt the rationale for participation was not introduced adequately, especially to those with no previous experience in yoga. Some participants felt there was a lack of ownership, consultation and co-production on the implementation of the yoga study. Most participants reported that they would continue to practice yoga, especially among those that experienced benefits. On nature of the context, comments illustrated the stressful nature of the children's home environment as well as some personal reflections from members of staff that influenced participation involvement in the yoga sessions.	*"I'd rather be at home […] Maybe you should try and do it in-house, because then it's more you coming to them instead of us having to try and get the young people out of the house (S5)."* *"Every time I was at work and it came up usually the young people didn't want to go, every time I tried to talk them into going they wasn't interested really, and as far as during my days off I just never really had time", "I don't really have time at this time", "I wish I would have had time to make it, I really do, it sounds like something that is fascinating to me but I just, with the way things happen in life sometimes you can't do everything you want to do" (S2).* *"I just wish more people would have participated from the home, the staff at the home you know; I think if we'd had better participation from the staff the kids would have been more inclined to join in, so I found that a bit of a frustration on my part" (S3)* *"Yeah, you're unable to plan for anything, your day shifts so rapidly from one minute to the next, its constant changes and how we adapt to them, and I think when people haven't had that insight into them it's quite an eye opener" (S3)*			

	“I think it was just probably that they had other activities planned or had their own trust time so they wanted to go out independently on their own and not necessarily to yoga” (S5) *“It would have been nicer if the kids were more engaged” (S6)* *“I think, if was it was sort of more, it was hard for people to get to and hard for people to give up work, and if you’re on shift and the kids aren’t in a good mood it made it quite difficult for us, and obviously if you’d had a bad shift the day before you didn’t feel like coming in, and I think that was one of the main problems, attendance, because we had to fit it in around our shifts and we work such long shifts that it made it quite difficult to staff” […] “I think if it was more optional then staff would be more willing to take part, I think the fact that we were told it was training and we would get in trouble if we didn’t attend sort of upset people before they’d even started” (S7)."* *"We’re having a bit of a rough ride at the minute and the staff are a bit like “oh no” […] but for all the bad days we have there’s twice as many good days […], so that’s the way you’ve got to look at it, we go*			

	through the bad times but we actually have some really good times with the children and that's important to recognise isn't it (S3). Disappointed in myself that there were lots of issues going on in the home that sometimes took me a away from being able to do the yoga" (S3)			

Economic evidence

Included studies

A systematic review was conducted to cover all questions within this guideline update. The study selection diagram is available in Appendix G. The search returned 3,197 publications since 2000. Additionally, 29 publications were identified through reference tracking. There were 10 publications deemed relevant based on title and abstract for this review question. On full inspection all studies were excluded. An updated search was conducted in November 2020 to identify any newly published papers. The search returned 584 publications. After screening titles and abstracts five publications were considered for full text inspection but did not meet the inclusion criteria and were excluded from the evidence report. Reasons for exclusion can be found in Appendix J – Excluded studies.

Economic model

The committee agreed that interventions to support care placement stability (review question 1.1), positive relationships (review question 2.1), and physical, mental, and emotional health and wellbeing of LACYP (review question 3.2) were likely to have important downstream consequences on the health-related quality of life of LACYP and utilisation of public sector resources. Therefore, such interventions were initially prioritised for economic modelling. These interventions were also perceived as highly specialised and expensive to implement, so economic modelling could be helpful in estimating their cost-effectiveness. It was also anticipated that individual studies would often report outcomes related to multiple review questions and depending on the availability of effectiveness evidence, it would be more meaningful to develop economic models for interventions more generally, rather than developing economic models for discrete review questions. Initial evidence mapping in the Economic Plan indicated an overlap in RCT evidence for review questions 1.1, 2.1 and 3.2, so an economic model was planned to address all three questions. However, the effectiveness evidence was insufficient for review question 1.1, therefore the planned modelling focused solely on questions 2.1 and 3.2. To inform the need for economic modelling the costs and resource impact of interventions were considered along with the presentation of the effectiveness evidence for review questions 2.1 and 3.2. However, the overall quality of the studies included in the effectiveness reviews was low to very low, with few interventions being considered in the committee's recommendations.

One intervention with evidence of efficacy in promoting positive relationships as well as promoting physical, mental, and emotional health and wellbeing of LACYP was multidimensional treatment foster care (MTFC). MTFC is a form of individual intensive foster care invented and researched by Chamberlain and colleagues at the Oregon Social Learning Centre (US). MTFC was initially delivered to a cohort of male teenagers mandated into residential care by a juvenile court, all of which had been detained in the year before study enrolment (Eddy 2000/2004, Smith 2010). A subsequent randomised trial by the same research group investigated the efficacy of MTFC in female teenagers with an history of persistent offending behaviour and delinquency (Poulton 2004, Leve 2007/2005a, Chamberlain 2007, Kerr 2009/2014, Harold 2013, Van Ryzin 2012). Both trials recruited 15-year-old American youths with an average lifetime record of 12 to 14 criminal referrals and compared MTFC to group care in a residential setting. Study results were reported in several publications and included outcomes relevant to review question 2.1 (interventions to promote positive relationships) such as days in a locked setting and number of criminal referrals, and review question 3.2 (interventions to promote physical, mental, and emotional health and

wellbeing of LACYP) namely substance use (males) or pregnancy, depression and self-harm (females).

The committee noted that MTFC had been piloted between 2005 and 2007 in several British local authorities in the form of an RCT, nested within a quasi-experimental case-control study (Green 2014). A publication related to this study was identified in the evidence review process, but the RCT had a small sample size (n=34), had a number of individuals randomised to MTFC that did not actually receive the intervention and the study reported no meaningful differences between comparators for both the primary and secondary outcomes. The case-control portion of the study also did not meet the inclusion criteria for the efficacy review and was therefore excluded from the report. The control group in the UK pilot RCT was usual care, including residential and foster care placements. However, the population in the UK pilot RCT was different from those recruited in the other RCTs included in the evidence reviews (Eddy 200/2004, Van Ryzin 2012), in that, enrolled children in the UK pilot RCT were younger (mean 13 years) and included a smaller proportion of offenders (53% versus 100% in the other studies). The committee agreed that the evidence supporting the efficacy of MTFC did not apply to the entire population included in the UK pilot RCT, as the other RCTs were restricted to populations of older children with chronic offending behaviour. The committee also noted it was unlikely that older children with chronic offending behaviour would be cared for in regular foster placements and would be more likely placed in residential or secure residential settings (run privately or by local authorities) or young offenders' institutions (custody).

It was expected that MTFC would be associated with substantial costs of implementation and delivery, due to human resources requirements and the individualised, intensive nature of intervention's components. Consequently, information on the cost of the intervention were considered fundamental to inform the committee's deliberations on the need for original economic modelling. Holmes et al. (2012) explored the costs of delivering MTFC using a sample of 24 children originally enrolled in the MTFC UK pilot. The study used a bottom-up approach to costing by considering several social care processes, commonly experienced by LACYP, and reporting the average costs that precede or come as a result of MTFC at each stage. The costs included in these processes were staff time costs and overheads associated with activities including direct contact with the child, birth family and carer, contact with other professionals related to the case, attendance at case-related meetings, writing of reports or case records, and travel. The time spent for these activities under each process was estimated in the study by a focus group of practitioners responsible for case management. Activity costs were calculated by Holmes et al. by using salary information for MTFC team staff to estimate a cost per hour for each practitioner involved and then multiplying these against the estimates of activity. Holmes and colleagues also reported the costs of alternative placements required if MTFC was not available (e.g., residential care, local authority foster care and agency foster care), over a period of 6 months or more (median 10 months). Costs per process per placement type reported by Holmes et al. are presented in Table 36. No measure of variance was presented for the costs in the Holmes study. Total costs for MTFC and each alternative were also calculated by the technical team for the purpose of this report, assuming placements would be maintained for 6 months (i.e., children would spend 6-months in process 3). The Holmes study compared the costs incurred in the first 6 months of MTFC placement with costs incurred by the same sample of LACYP in the 6 months prior to that placement, so the 6-month assumption for process 3 is used rather than the median placement length of 10 months. Since process 3 is more costly for residential care than MTFC, using a longer placement duration for these calculations would make MTFC more favourable with a larger difference in costs.

Table 36 - UK costing of MTFC and alternatives (bottom-up approach)

	MTFC costs	Residential care	LA foster care	Agency foster care
Process 1: Decision to place/finding first placement	£7,659	£1,675	£1,330	£1,730
Process 2: Care planning	£150	£150	£150	£150
Process 3: Maintaining the placement (per month)	£7,027	£12,214	£3,395	£6,245
Process 4: Leaving care/accommodation	£327	£327	£327	£327
Process 5: Finding a subsequent placement	£7,300	£1,289	£790	£1,189
Process 6: Review	£499	£711	£711	£711
Process 7: Legal interventions	£3,439	£3,439	£3,439	£3,439
Process 8: Transition to leaving care services	£1,449	£1,449	£1,449	£1,449
TOTAL COST (assuming 6 months in Process 3)	**£62,985**	**£82,324**	**£28,566**	**£46,465**

All costs inflated from sterling 2011 to 2020 using a GDP deflator index conversion tool available at https://eppi.ioe.ac.uk/costconversion/

Processes 1 and 5 around finding placements were estimated to be more costly for MTFC than for residential care, likely because one of the fundamental aims of the MTFC programme is to achieve greater placement stability which may require more work for matching and placing an individual. The monthly cost of maintaining a placement however, is estimated to be lower for MTFC than for residential care (£7,027 compared to £12,214) as the focus group estimates of staff activity in process 3 indicated more work was required for maintaining residential care placements.

As there is uncertainty in the generalizability of the costs for MTFC and residential care reported by Holmes (2012) to adolescents with a history of persistent offending behaviour we have validated the estimates by comparing them to nationally available costs from the Unit Costs of Health and Social care (Curtis 2019)(Table 37). The national estimates were obtained using a top-down approach to costing where the total current expenditure for the local authorities (LA) was divided by the number of LA provision care days. For the purpose of the costing exercise the authors considered residential care homes, children secure units, children in homes or hostels and residential schools to be part of residential care. Different costs were presented depending on whether the provider was a local authority or external (non-local authority). The costs calculated here are comparable to the ‘Process 3’ costs of maintaining a care placement. It should be noted that this approach reflects the general population costs for residential and foster care in the UK, and not the specific group of adolescents with a history of persistent offending behaviour. Care costs for this specific group are anticipated to be higher than those costs for the general population.

Table 37 – Costs of residential and foster care in the UK (top-down approach)

	Weekly cost	Monthly cost
Residential care		
Local authority provision	£4,557	£19,747
External provision	£3,403	£14,746

Foster care	£607	£2,428

When compared to the national average monthly cost of local authority-provided residential care the estimated cost for maintaining the residential care placement presented by Holmes (2012) is lower (£12,214 versus £19,747). When assuming a monthly residential care cost of £19,747 (from the national average cost of residential care provided by a local authority, rather than using £12,214 reported by Homes) for process 3 and a 6-month placement duration, the total costs of residential care (the alternative to MTFC) would be £127,522. This estimated cost for residential care is more than double the cost of MTFC (£62,985).

An important limitation of the costing analysis for MTFC is its sole focus on a very specific population, adolescents with persistent offending behaviour. In this population, usual care is likely to be residential care, whereas usual care in the general LACYP population is more likely to be regular foster care. This difference in usual care between these two distinct populations has important implications when interpreting the generalisability of the results of the costing analysis to the general LACYP population. The costing study indicates that MTFC is more expensive than both local authority foster care and agency foster care, and the evidence supporting the efficacy of MTFC may not be applicable to the general LACYP population due to the studies being specifically in adolescents with complex emotional and behavioural needs. Therefore, it is reasonable to restrict recommendations to the subgroup of adolescents with a history of persistent offending behaviour. Although the analysis has limitations in not being generalisable to the general LACYP population, the literature does suggest that MTFC was designed specifically for adolescents with behavioural issues, not the general population (Bergstrom 2016, Green 2014, Sinclair 2016).

Another limitation of the analysis is that the long-term outcomes of MTFC are unknown given the short follow-up of the existing RCTs. However, some insight can be gained by examining associations between observed effects in outcomes reported in RCTs and other related long-term outcomes. The evidence suggests that MTFC is associated with improvement in depressive and psychotic symptoms and drug use (review question 3.2), as well as an improvement in crime and delinquency scores (review question 2.1). All these positive impacts on short term outcomes may potentially lead to individuals being less likely to incur negative long-term outcomes such as physical and mental illness, poverty and entering the criminal justice system. In contrast, residential care has been shown to be associated with an increased likelihood of young people entering the criminal justice system. As individuals who enter the criminal justice system incur both substantial costs to the system (prison costs, staff costs) as well as negative consequences to the individual (limiting employment, education and other opportunities) it is likely that an intervention such as MTFC, that potentially reduces the chances of individuals with persistent offending behaviour entering the criminal justice system, would result in lower long-term costs and potentially better outcomes compared to usual care (i.e., residential care) over longer follow-up periods. However, further research is required to confirm this assertion and quantify the differences in long-term costs and outcomes in looked after adolescents with persistent offending behaviour receiving MTFC or residential care.

After considering both the efficacy of MTFC from the RCTs involving adolescents with a history of persistent offending behaviour and UK-specific cost data of MTFC compared to its alternative (residential care), the committee agreed that there is evidence supporting the role of MTFC in improving outcomes of adolescents with an history of persistent offending behaviour and that this is likely to be less expensive and more effective (dominant) than usual care (i.e., residential care) in this specific population of LACYP. The committee also highlighted that usual care for this specific population of LACYP (i.e., residential care) is unlikely to have a therapeutic component/effect comparable to that of MTFC, particularly for

children in custody for which there is a high probability of reoffending. Consequently, de novo economic modelling was considered not to be required to support the committee's recommendation of MTFC in adolescents with persistent offending behaviour.

The committee's discussion of the evidence

Interpreting the evidence

The outcomes that matter most

The committee discussed the evidence presented. Some reported scales were known to the committee and were considered valid to define the outcome they were describing. For example, the Strengths and Difficulties Questionnaire (SDQ), which is used in routine health assessments in the UK, for looked after children; and the Health of the Nation Outcome Scales for Children and Adolescents, and the Children's Global Assessment Scale, which are child-specific measures of global health used commonly in the literature. Otherwise, the committee expressed concern over the use of outcome scales that they were not familiar within the literature. Particularly, the committee considered that some authors appeared to have used scales that they had developed themselves or had used composite outcomes derived from known scales. Both were considered to have validity problems.

The committee were interested in authors who had reported salivary cortisol (which is used as a biological marker of stress reaction) as an outcome, since this was a potentially objective finding, not reliant on questionnaire data (which could be subject to bias and validity issues, described above). However, authors did not use salivary cortisol data in a consistent manner. Some looked at the overall cortisol between groups to see which group had the highest levels of cortisol, on average. Others considered the patterns of cortisol across time, e.g. looking for a "flattening" effect between AM and PM cortisol which denotes a pattern seen in maltreated children. Other's used the Strange Situation, a known test employed in research among maltreated children. This test looked at cortisol levels during and after a child was separated and then returned to their primary caregiver. However, it was not always clear at what point in the test the cortisol level was being measured. In addition, it was important for such studies to control for the time of day that the cortisol was measured, since this is known to vary significantly between morning and evening. Such issues affected interpretability.

The Better Futures intervention was an example of an intervention for which the committee were unsure of the usefulness of the outcomes reported. This study reported the AIR self-determination scale, and the Arc self-determination scale, the hopelessness scale, as well as a quality of life questionnaire; all scales the committee were not familiar with. Another example was the make a move sexual harassment prevention programme where participants were asked to respond to a set of statements such as "I think that a girl who cheats on her boyfriend deserves to be beaten". The committee commented on the lack of meaningful difference between comparison groups for these outcomes as being likely because neither group would agree, and therefore, the outcomes were not useful for differentiating the effectiveness of the intervention.

The quality of the evidence

The committee discussed several aspects of the quality of the evidence presented. It was noted that studies were often unclear about how randomisation was performed in the first place and, in addition, there were frequently considerable differences between comparison groups at baseline, meaning that studies had to adjust for confounding factors. Some studies appeared to be subgroups of a larger randomised controlled trial (for example, the papers by

Dozier et al.) therefore it was unclear whether randomisation remained valid in these papers. Likewise, some studies had a large loss to follow up after randomisation, which again led to questions about the comparability of the study groups.

As described above, the committee considered the validity of some of the outcomes reported, this affected the overall risk of bias assessment. Particularly the use of measurements with unclear validation. In addition, the committee commented on the fact that certain studies had measured similar outcomes multiple times. For example, Geenen 2015 had used two measures of "self-determination". In other cases, the total number of outcomes measured meant that some were likely to be significant by chance alone (at the 0.05 level). Outcomes which were self-reported or subjective may have been subjective to bias since few studies were blinded.

The committee also discussed the fact that some studies may have been underpowered to detect the effects they were attempting to measure. Few studies reported whether they had performed a power calculation. Therefore, it was difficult to differentiate between those "primary" outcomes for which the study was powered to differentiate a significant effect size, and those which were secondary outcomes. Once again, outcomes assessed for which a study is not powered, may be statistically significant by chance rather than due to any "true" effect.

As in previous reviews, much of the evidence was based in the USA. In addition, certain studies were old. This is problematic since the population to which these results are being applied (looked after children in the UK) have a significantly different social care context. Therefore, the committee were careful to take this into account in their interpretation of the results. Issues of indirectness were particularly relevant for certain studies which had included juvenile youth offenders in the USA who were mandated to out of home care by court, for example in Kerr 2009 and Smith 2010.

Benefits and harms

The committee considered the evidence presented for interventions to promote the physical, mental, and emotional health and wellbeing of looked after children, young people and care leavers. The committee initially considered the evidence presented looking at multidimensional treatment foster care (MTFC). This intervention had one version which was aimed at pre-schoolers (aged 3 – 5 years), and another version which was aimed at adolescents. The committee considered evidence looking at salivary cortisol outcomes for MTFC (Fisher 2007/2011). While cortisol levels usually drop from morning to evening, these studies seemed to show that being in the routine foster care group was associated with a flattening effect in AM-PM cortisol compared to being in the intervention group. This flattening pattern is known to occur in children with early adversity. The committee considered that evidence of change of cortisol patterns could be valuable in the context of other evidence showing the broader effectiveness of MTFC for pre-schoolers, however, on its own it was insufficient to be able to support the use of MTFC for pre-schoolers. For example, there was no clear evidence of the effectiveness of this intervention for other outcomes of interest (e.g. positive relationships and placement stability). It was unclear how a change in diurnal cortisol patterns translates into tangible differences for the looked after child and caregiver.

The committee considered two randomised studies looking at the impact of MTFC in an older age group (adolescents). These were in groups with conduct disorders or complex emotional/behavioural disorders. The committee considered that these were in small studies (n=34 to 46) which might account for the lack of significant impact found. The remaining evidence was from a larger randomised controlled trial looking at the use of MTFC in adolescent offenders who had been mandated to MTFC by court order. These studies

showed a significant improvement in the MTFC group for depressive symptoms, psychotic symptoms, and drug use. The committee considered that MTFC had been shown to be effective across outcomes spanning a range of review questions (e.g. interventions to improve positive relationships) and that this constituted further supportive evidence of their decision to recommend MTFC for adolescents in the specific sub-population of looked after young people who were persistent offenders. However, the committee considered the possible harms of this intervention would include risk to the treatment foster parents and any existing children in treatment foster homes. Therefore, providers should take care when considering this intervention.

Next the committee considered evidence looking at the impact of Attachment and Biobehavioural Catch-up (ABC) compared to developmental education for families. The committee had considered evidence for this intervention in an earlier review question (interventions for promoting Readiness for School). The evidence presented showed that being in the ABC intervention group was associated with an overall lower level of cortisol (including AM and PM values). In this case, the studies did not consider the diurnal pattern of cortisol between groups. The committee had already recommended the ABC intervention as a result of evidence presented in a previous review question. They considered the cortisol evidence as broadly supportive of their recommendation to cross-refer to recommendations 1.5.1 to 1.5.3 in the Children's Attachment Guideline.

Similarly, there was some evidence showing an association between the Middle School Success intervention and better substance use outcomes at 3 years follow up; and the Kids in Transition to School intervention and improved self-regulation, positive attitudes towards alcohol, self-competence, and overall level of salivary cortisol. The committee saw this evidence as broadly supportive of recommendations they had made after reviewing evidence in a previous review (interventions to promote readiness for school), to consider the use of transition programmes for supporting looked after children moving between schools. Therefore, no further recommendations were made.

The committee considered evidence looking at the use of caregiver training interventions. Parent Management Training Oregon was associated with improvements in social-emotional functioning, the Fostering Changes programme was associated with improvements in strengths and difficulties score; the child-adult relationship enhancement training was associated with improvements in anxiety scores, Promoting First Relationships was associated with a normal cortisol response to the strange situation; and another training programme (Minnis 2001) was associated with improvements in strengths and difficulties scores. The committee had previously considered the components of these interventions under another review question (interventions to promote positive relationships), in which they had recommended therapeutic, trauma-informed, training for caregivers covering attachment-informed, high support, high-nurturing, responsive, relational care techniques. The committee considered these findings as supportive of the recommendations previously made. The committee considered that, for all looked after children and young people, though a caregiver training intervention can be supportive, the primary intervention to support social, emotional, and mental wellbeing was not any kind of programme or short-term intervention, as such, but a positive caregiver relationship. An additional recommendation was made to promote positive caregiver relationship as the primary means to support social, emotional and mental wellbeing in looked after children and young people.

The committee also considered RCT evidence on three interventions for older looked after children and young people. These were interventions involving coaching and mentoring. The Fostering Healthy Futures intervention involved the use mentoring (by social care graduates) and manualised skills groups run by trained facilitators. This intervention was in 9-11 year

olds and results were mixed, sometimes showing significant improvements at 9 months follow up, but not at 6 months. There was also evidence of no meaningful effect for several outcomes such as mental health factor score, PTSD symptoms, positive coping, negative coping, self-worth, social acceptance, dissociation symptoms, and social support factor score. In contrast, two interventions in older youth found a more positive impact upon outcomes. An RCT of Take Charge, a coaching and mentoring intervention involving youth (age 14 to 17) with serious emotional needs, found improvements in anxiety scores, withdrawn-depressed scores, and somatic complaints scores over follow up. Meanwhile, an RCT of Better Futures, another coaching and mentoring intervention among youth 16-17 years old with mental health problems, found improvements in self-determination scores, quality of life, hopelessness and mental health recovery scores in the intervention group. The committee recognised the potential benefit, both for positive relationships and health and wellbeing, in having a mentor for friendship and guidance, particularly one with care experience. However, the available evidence seemed to suggest that older looked after children may be more responsive to this, particularly those with pre-existing emotional and mental health problems. Recognising the weakness of the evidence base the committee recommended to consider mentoring interventions, for example, by peers with care experience, particularly for looked after young people with social, emotional and mental wellbeing needs. The committee also noted that safeguarding issues would need to be adhered to prevent inappropriate or negative relationships forming, and that a significant mentor-mentee age gap would be advisable.

The committee also considered RCT evidence for interventions employed in residential care, this included Power Through Choices (pregnancy and sexual health training), Make A Move (a sexual health and sexual harassment prevention programme), the use of Health and Wellbeing Co-ordinators in residential care (co-ordinators help devise individualised health plan, and deliver healthy living education), and ENRICH intervention (an intervention to enhance residential care centre practices to promote physical activity). However, there was no evidence for the effectiveness of these interventions, additionally given the poor quality of the available evidence the committee did not make specific recommendations for this subpopulation.

The committee considered evidence from one RCT looking at a trauma-informed group intervention for unaccompanied asylum seekers. The “MeinWeg” intervention was a trauma-informed mindfulness and life story intervention in 13 – 21 year olds exposed to trauma, which was associated with reductions in severity of PTSD and depression symptoms on follow up. The committee noted that this intervention was likely only deliverable among unaccompanied asylum seekers who were able to read, write, and understand the language of their host country. However, the trauma-informed aspect of the intervention was noted as likely to be helpful.

The committee also heard expert testimony evidence on the journey and care of unaccompanied asylum seekers by two experts: Alex Stringer (AS), a Service Manager for UASC in Kent and Ann Lorek, a Doctor for Child Protection in Lambeth (see Appendix M). These testimonies touched on many aspects of the health needs of LACYP from arrival in the UK to leaving care, see Appendix M. Expert testimony highlighted the likelihood that all unaccompanied asylum seekers had experienced some form of trauma, if at the minimum through the separation from their own parents, and that there was a training need for professionals supplying the care for this vulnerable population (many of whom have health needs quite distinct from those of the wider looked after children population). Trauma-informed care was therefore considered a health need for all in this subgroup and the committee recommended specialist, trauma-informed mental health and emotional wellbeing support for all unaccompanied asylum seekers. By way of explanation of what this specialist

support would require, the committee also recommended that all carers and professionals receive trauma informed training for delivering care in unaccompanied asylum seekers.

Based on expert testimony, another need that was highlighted was for culturally appropriate interpretation for looked after children and young people in whom language was a barrier to good care and communication. Culturally appropriate referred to the fact that certain subcultures within countries may be distrustful of one another, which may affect the ability to translate, and therefore that the selection of translators should be sensitive to these issues. The committee also considered the use of telephones to be particularly difficult for translation and that translations should be done in-person where possible. The committee felt that this should be insisted upon for the initial health assessment, where accurate translation is extremely important for identifying need and supplying necessary services to address any health problems at as early a stage as possible in the care journey.

Cost effectiveness and resource use

No economic evidence was identified in relation to this review question, however, a costing analysis of MTFC in a subgroup of LACYP was presented to the committee. The committee also used the effectiveness evidence identified for this review question to inform recommendations around promoting physical, mental and emotional health and wellbeing of LACYP.

The committee discussed the efficacy, cost-effectiveness and resource impact of MTFC and agreed that the intervention will be associated with high implementation and running costs. However, when MTFC is used in adolescents with a history of persistent offending behaviour these upfront costs were likely to be offset by the lower recurring monthly costs and additional health and social benefits generated from the intervention compared to usual care (i.e., residential care). Potential short-term health and social benefits of MTFC include improvement in depressive and psychotic symptoms and drug use, as well as longer-term benefits such as lower likelihood of physical and mental illness, poverty, and entering the criminal justice system.

The committee agreed that professionals caring for unaccompanied asylum seekers should provide trauma-informed care and emotional well-being support across the care continuum. This is due to the above average likelihood of these children experiencing traumatic events motivating or occurring in consequence of their displacement. The committee also agreed that awareness of the specific needs of unaccompanied asylum seekers could be facilitated by additional training and through invited feedback from children that were once cared for in these circumstances and/or specialist organisations in the voluntary sector. It was anticipated that such information could be provided as part of existing in-house training, ensuring that the delivery is tailored to different professional groups and their level of familiarity in providing care for unaccompanied asylum seekers. The committee noted that trauma-informed training could be incorporated into existing training sessions by altering or updating existing sessions on similar topics such as de-escalation. There are freely available resources for trauma-informed training and other kinds of training and although there would be a cost associated with adapting these resources for purpose, these costs are expected to be minimal. Funding for this additional training should already be available through general funds that support routine training and activities (e.g., team awareness days) for healthcare professionals.

The committee also discussed the role of carers having a positive relationship with LACYP in order to support the social, emotional and mental health and wellbeing of LACYP. The committee highlighted that training for carers should place the quality of the relationship between carers and LACYP at its core and caregivers should facilitate and protect the

maintenance and stability of this relationship. The committee indicated that such an approach would be considered current practice, but recognised that carers potentially have responsibilities for multiple children/young people and caregivers having high caseloads could have impacts on the delivery of such care, in spite of the provision of appropriate carer training.

The committee noted that when a language barrier between a LACYP and a healthcare professional is anticipated, a registered, culturally appropriate translator should be present to facilitate communication during the initial health assessment. Specialised translation services are, however, associated with costs, but a child's right of expression is mandated by statutory guidance. Hence, expenditures associated with such services are justified.

The committee has also recognised the role of mentoring interventions by peers with experience of the care process, and its potential benefit to the health and well-being of LACYP. It was anticipated that such mentoring would often be carried out on a voluntary basis or through informal peer-to-peer interactions and although there would be some administrative costs in terms of setting up and monitoring these mentoring interventions, which would need organisation and the processing of, for example, DBS (Disclosure and Barring Service) checks, these costs would be minimal, and the potential benefits would outweigh the small cost.

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Appendices

Appendix A – Review protocols

Review protocol for RQ3.2: Interventions and approaches to promoting physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers?

ID	Field	Content
0.	PROSPERO registration number	
1.	Review title	Interventions and approaches to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers
2.	Review question	3.2a: What is the effectiveness of interventions and approaches for promoting physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers? 3.2b: Are interventions to promote physical, mental, and emotional health and wellbeing acceptable and accessible to looked-after children and young people and their care providers? What are the barriers to, and facilitators for the effectiveness of these interventions?
3.	Objective	Quantitative To determine the effectiveness and harms of interventions and approaches to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers

		Qualitative To determine if interventions to promote physical, mental, and emotional health and wellbeing are acceptable and accessible to looked after children, care leavers, their carers, and providers who would deliver them. To determine other barriers and facilitators to the effectiveness of these interventions.
4.	Searches	**Sources to be searched** • PsycINFO (Ovid) • Embase (Ovid) • MEDLINE (Ovid) • MEDLINE In-Process (Ovid) • MEDLINE Epubs Ahead of Print • PsycINFO (Ovid) • Social policy and practice (Ovid) • Cochrane Central Register of Controlled Trials (CENTRAL) • Cochrane Database of Systematic Reviews (CDSR) • Database of Abstracts of Reviews of Effect (DARE) • EconLit (Ovid) – economic searches only • NHSEED (CRD) - economic searches only **Supplementary search techniques** • Studies published from 1st January 1990 to present day. **Limits** • Studies reported in English • No study design filters will be applied • Animal studies will be excluded

		• Conference abstracts/proceedings will be excluded. • For economic searches, the Cost Utility, Economic Evaluations and Quality of Life filters will be applied. The full search strategies for MEDLINE database will be published in the final review. For each search the Information Services team at NICE will quality assure the principal database search strategy and peer review the strategies for the other databases using an adaptation of the PRESS 2015 Guideline Evidence-Based Checklist
5.	Condition or domain being studied	This review is for part of an updated NICE guideline for looked-after children and young people and concerns interventions to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers
6.	Population	Looked after children and young people and care leavers (wherever they are looked after) from birth to age 25. Also including: • Children and young people who are looked after on a planned, temporary basis for short breaks or respite care purposes, only if the Children Act 1989 (section 20) applies and the child or young person is temporarily classed as looked after. • Children and young people living at home with birth parents but under a full or interim local authority care order and are subject to looked-after children and young people processes and statutory duties. • Children and young people in a prospective adoptive placement.

		• Looked-after children and young people on remand, detained in secure youth custody and those serving community orders.
7.	Intervention	Health and social care interventions and approaches to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers. Example interventions and approaches of interest include: • Interventions for delivering health- and wellbeing- related advice, education, signposting, and information for LACYP • Targeted and specialist services for LACYP and care leavers (for example, LACYP-specific services for health and wellbeing promotion, sex and relationship counselling, mental health, dental health, and nutritional health) • Interventions to support positive relationships (if health and wellbeing outcomes are reported) • Interventions to support placement stability (if health and wellbeing outcomes are reported) • Structured training for carers to support the physical and mental health and wellbeing of LACYP • Group programmes and evidence-based parenting programmes (e.g. Solihull approach, Kim Goldings therapeutic parenting)
8.	Comparator	<u>Quantitative evidence</u> Comparator could include standard care, waiting list, or another approach to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers. <u>Qualitative evidence</u>

		Not applicable
9.	Types of study to be included	Quantitative evidence • Systematic reviews of included study designs • Randomised controlled trials If insufficient evidence, progress to non-randomised prospective controlled study designs If insufficient evidence, progress to non-randomised, non-prospective, controlled study designs (for example, retrospective cohort studies, case control studies, uncontrolled before and after studies, and interrupted time series) Qualitative evidence • Including focus groups and interview-based studies (mixed-methods studies will also be included provided they contain relevant qualitative data). Evidence must be related to acceptability, accessibility of interventions, or other barriers to and facilitators for their effectiveness to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers.
10.	Other exclusion criteria	• Studies including mixed populations (i.e. looked after and non-looked after children) without reporting results separately for LACYP • Studies of interventions for specific clinical conditions covered in existing NICE guidelines • Mental health and emotional wellbeing interventions covered in existing NICE guidelines

		• Health promotion interventions covered in existing NICE guidelines • Strategies, policies, system structure and the delivery of care that is covered in statutory guidance about looked after children and young people Quantitative evidence • Countries outside of the UK (unless not enough evidence, then progress to OECD countries) • Studies older than the year 2000 (unless not enough evidence, then progress to include studies between 1990 to current) Qualitative evidence • Mixed-methods studies reporting qualitative data that cannot be distinguished from quantitative data. • Countries outside of the UK (unless evidence concerns an intervention which has been shown to be effective in reviewed quantitative evidence) • Studies older than the year 2010 (unless not enough evidence, then progress to include studies between 1990 to current)
11.	Context	Looked-after children and young people have poorer outcomes in many areas, including mental and physical health. For example, the rate of mental health disorders in the general population aged 5 to 15 is 10%. For those who are looked after it is 45%, and 72% for those in residential care. In 2017, 56.3% of looked-after children had a special educational need, compared with 45.9% of children in need and 14.4% of all children. Looked-after children are more likely to become a single parent and are at greater risk of teenage pregnancy and poor pregnancy-related outcomes. These

		include smoking during pregnancy, having a low birth weight baby, and depression. Local authorities have a duty to support looked-after children and young people. This includes providing support to improve mental and emotional health and wellbeing and producing individual care plans covering any identified health requirements.
12.	Primary outcomes (critical outcomes)	Quantitative outcomes • Mental wellbeing • Emotional wellbeing • Quality of life • Physical health outcomes (e.g. improvements in sexual health, nutrition, dentition, or improved health behaviours, or risk-taking behaviours) Qualitative outcomes Qualitative evidence related to interventions to promote physical, mental, and emotional health and wellbeing of looked-after children, young people and care leavers, will be examined. Evidence should relate to the views of looked after children, their carers, and providers, who would deliver eligible interventions, on: • The accessibility and acceptability of the intervention, including information about the source and type of intervention used. • Barriers to and facilitators for intervention effectiveness
13.	Secondary outcomes (important outcomes)	None
14.	Data extraction (selection and coding)	All references identified by the searches and from other sources will be uploaded into EPPI reviewer and de-duplicated. 10% of the

		abstracts will be reviewed by two reviewers, with any disagreements resolved by discussion or, if necessary, a third independent reviewer. The full text of potentially eligible studies will be retrieved and will be assessed in line with the criteria outlined above. A standardised form will be used to extract data from studies (see Developing NICE guidelines: the manual section 6.4). Study investigators may be contacted for missing data where time and resources allow.
15.	Risk of bias (quality) assessment	Risk of bias and/or methodological quality will be assessed using the preferred checklist for each study type as described in Developing NICE guidelines: the manual. The risk of bias across all available evidence will be evaluated for each outcome using an adaptation of the 'Grading of Recommendations Assessment, Development and Evaluation (GRADE) toolbox' developed by the international GRADE working group http://www.gradeworkinggroup.org/ GRADE and GRADE CERQual will be used to assess confidence in the findings from quantitative and qualitative evidence synthesis respectively.
16.	Strategy for data synthesis	Quantitative data Meta-analyses of interventional data will be conducted with reference to the Cochrane Handbook for Systematic Reviews of Interventions (Higgins et al. 2011).

		Fixed- and random-effects models (der Simonian and Laird) will be fitted for all syntheses, with the presented analysis dependent on the degree of heterogeneity in the assembled evidence. Fixed-effects models will be the preferred choice to report, but in situations where the assumption of a shared mean for fixed-effects model is clearly not met, even after appropriate pre-specified subgroup analyses is conducted, random-effects results are presented. Fixed-effects models are deemed to be inappropriate if one or both of the following conditions was met: • Significant between study heterogeneity in methodology, population, intervention or comparator was identified by the reviewer in advance of data analysis. • The presence of significant statistical heterogeneity in the meta-analysis, defined as $I^2 \geq 50\%$. • Meta-analyses will be performed in Cochrane Review Manager V5.3 If the studies are found to be too heterogeneous to be pooled statistically, a simple recounting and description of findings (a narrative synthesis) will be conducted. Qualitative data Information from qualitative studies will be combined using a thematic synthesis. By examining the findings of each included study, descriptive themes will be independently identified and coded in NVivo v.11. The qualitative synthesis will interrogate these ‘descriptive themes’ to develop ‘analytical themes’, using the theoretical

		framework derived from overarching qualitative review questions. Themes will also be organised at the level of recipients of care and providers of care. Evidence integration A segregated and contingent approach will be undertaken, with sequential synthesis. Quantitative and qualitative data will be analysed and presented separately. For non-UK evidence, the data collection and analysis of qualitative data will occur after and be informed by the collection and analysis of quantitative effectiveness data. Following this, all qualitative and quantitative data will be integrated using tables and matrices. By intervention, qualitative analytical themes will be presented next to quantitative effectiveness data. Data will be compared for similarities and incongruence with supporting explanatory quotes where possible.
17.	Analysis of sub-groups	Results will be stratified by the following subgroups where possible. In addition, for quantitative synthesis where there is heterogeneity, subgroup analysis will be undertaken using the following subgroups. Age of LACYP: • LACYP in early years • LACYP in primary education • LACYP in secondary education and further education until age 18 • Care leavers Subgroups, of specific consideration, will include:

		• Looked-after children on remand • Looked-after children in secure settings • Looked-after children and young people with mental health and emotional wellbeing needs • Looked-after children and young people who are babies and young children • Looked-after children and young people who are unaccompanied children seeking asylum, or refugees • Looked-after children and young people who are at risk or victims of exploitation (including female genital mutilation) and trafficking • Looked-after children and young people who are teenage and young parents in care • Looked-after children and young people with disabilities; speech, language and communication needs; special education needs or behaviour that challenges. • Looked-after children and young people who are placed out of area • Looked-after children who are LGBTQ
18.	Type and method of review	☐ Intervention ☐ Diagnostic ☐ Prognostic ☐ Qualitative ☐ Epidemiologic ☐ Service Delivery ☒ Other (please specify)

<table>
<tr><td>19.</td><td>Language</td><td colspan="3">English</td></tr>
<tr><td>20.</td><td>Country</td><td colspan="3">England</td></tr>
<tr><td>21.</td><td>Anticipated or actual start date</td><td colspan="3">June 2019</td></tr>
<tr><td>22.</td><td>Anticipated completion date</td><td colspan="3">September 2021</td></tr>
<tr><td rowspan="7">23.</td><td rowspan="7">Stage of review at time of this submission</td><td>Review stage</td><td>Started</td><td>Completed</td></tr>
<tr><td>Preliminary searches</td><td>☐</td><td>☐</td></tr>
<tr><td>Piloting of the study selection process</td><td>☐</td><td>☐</td></tr>
<tr><td>Formal screening of search results against eligibility criteria</td><td>☐</td><td>☐</td></tr>
<tr><td>Data extraction</td><td>☐</td><td>☐</td></tr>
<tr><td>Risk of bias (quality) assessment</td><td>☐</td><td>☐</td></tr>
<tr><td>Data analysis</td><td>☐</td><td>☐</td></tr>
<tr><td>24.</td><td>Named contact</td><td colspan="3">5a. Named contact
Guideline Updates Team
5b Named contact e-mail
LACYPupdate@nice.org.uk
5c Organisational affiliation of the review
National Institute for Health and Care Excellence (NICE)</td></tr>
<tr><td>25.</td><td>Review team members</td><td colspan="3">From the Guideline Updates Team:
• Caroline Mulvihill
• Stephen Duffield
• Bernadette Li
• Rui Martins</td></tr>
</table>

26.	Funding sources/sponsor	This systematic review is being completed by the Guideline Updates Team, which is part of NICE.
27.	Conflicts of interest	All guideline committee members and anyone who has direct input into NICE guidelines (including the evidence review team and expert witnesses) must declare any potential conflicts of interest in line with NICE's code of practice for declaring and dealing with conflicts of interest. Any relevant interests, or changes to interests, will also be declared publicly at the start of each guideline committee meeting. Before each meeting, any potential conflicts of interest will be considered by the guideline committee Chair and a senior member of the development team. Any decisions to exclude a person from all or part of a meeting will be documented. Any changes to a member's declaration of interests will be recorded in the minutes of the meeting. Declarations of interests will be published with the final guideline.
28.	Collaborators	Development of this systematic review will be overseen by an advisory committee who will use the review to inform the development of evidence-based recommendations in line with section 3 of Developing NICE guidelines: the manual. Members of the guideline committee are available on the NICE website: https://www.nice.org.uk/guidance/indevelopment/gid-ng10121
29.	Other registration details	N/ A
30.	Reference/URL for published protocol	
31.	Dissemination plans	NICE may use a range of different methods to raise awareness of the guideline. These include standard approaches such as: • notifying registered stakeholders of publication • publicising the guideline through NICE's newsletter and alerts

		• issuing a press release or briefing as appropriate, posting news articles on the NICE website, using social media channels, and publicising the guideline within NICE.
32.	Keywords	Looked after children, looked after young people, children in care, interventions, systematic review, mental wellbeing, emotional wellbeing, physical health
33.	Details of existing review of same topic by same authors	N/ A
34.	Current review status	☐ Ongoing ☐ Completed but not published ☐ Completed and published ☐ Completed, published and being updated ☐ Discontinued
35..	Additional information	
36.	Details of final publication	www.nice.org.uk

Appendix B – Literature search strategies

Effectiveness searches

Bibliographic databases searched for the guideline:

- Cochrane Database of Systematic Reviews – CDSR (Wiley)
- Cochrane Central Register of Controlled Trials – CENTRAL (Wiley)
- Database of Abstracts of Reviews of Effects – DARE (CDSR)
- PsycINFO (Ovid)
- EMBASE (Ovid)
- MEDLINE (Ovid)
- MEDLINE Epub Ahead of Print (Ovid)
- MEDLINE In-Process (Ovid)
- Social policy and practice (Ovid)
- ERIC (ProQuest)

A NICE information specialist conducted the literature searches for the evidence review. The searches were originally run in June 2019 with an additional search of the ERIC database in October 2019.

Searches were run on population only and the results were sifted for each review question (RQ). The searches were rerun on all databases reported above in July 2020 and again in October 2020.

The principal search strategy was developed in MEDLINE (Ovid interface) and adapted, as appropriate, for use in the other sources listed in the protocol, taking into account their size, search functionality and subject coverage.

The MEDLINE strategy below was quality assured (QA) by trained NICE information specialist. All translated search strategies were peer reviewed to ensure their accuracy. Both procedures were adapted from the 2016 PRESS Checklist. The translated search strategies are available in the evidence reviews for the guideline.

The search results were managed in EPPI-Reviewer v5. Duplicates were removed in EPPI-R5 using a two-step process. First, automated deduplication is performed using a high-value algorithm. Second, manual deduplication is used to assess 'low-probability' matches. All decisions made for the review can be accessed via the deduplication history.

English language limits were applied in adherence to standard NICE practice and the review protocol.

A date limit of 1990 was applied to align with the approximate advent of the Children Act 1989.

The limit to remove animal studies in the searches was the standard NICE practice, which has been adapted from: Dickersin, K., Scherer, R., & Lefebvre, C. (1994). Systematic Reviews: Identifying relevant studies for systematic reviews. *BMJ*, 309(6964), 1286.

No study design filters were applied, in adherence to the review protocol.

Table 1: search strategy

Medline Strategy, searched 10th June 2019 **Database: Ovid MEDLINE(R) 1946 to June 10, 2019** **Search Strategy:**	
1	child, orphaned/ (659)
2	child, foster/ (71)
3	child, adopted/ (46)
4	adolescent, institutionalized/ (126)

Medline Strategy, searched 10th June 2019 **Database: Ovid MEDLINE(R) 1946 to June 10, 2019** **Search Strategy:**
5 ("looked after" adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (123) 6 ("care leaver*" or "leaving care").tw. (31) 7 (("in care" or "care experience*") adj1 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (236) 8 ((nonparent* or non-parent* or parentless* or parent-less) adj3 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (111) 9 ((relinquish* or estrange*) adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (74) 10 ((child* or infancy or adolescen* or juvenile* or toddler* or infant* or teen* or tween* or young* or baby or babies or twin* or sibling* or youth*) adj2 (orphan* or foster* or adopt* or abandon* or unwanted or unaccompanied or homeless or asylum* or refugee*)).ti. (2973) 11 "ward of court*".tw. (12) 12 or/1-11 (4225) 13 residential facilities/ (5286)

Medline Strategy, searched 10th June 2019 Database: Ovid MEDLINE(R) 1946 to June 10, 2019 Search Strategy:
14 group homes/ (948) 15 halfway houses/ (1051) 16 (("out of home" or " out-of-home" or placement* or "semi independent" or "semi-independent") adj2 care*).tw. (1131) 17 ((residential or supported or remand* or secure or correctional) adj1 (accommodation* or institut* or care or lodging or home* or centre* or center* or facilit*)).tw. (6595) 18 or/13-17 (13612) 19 orphanages/ (435) 20 adoption/ (4727) 21 foster home care/ (3503) 22 (special adj1 guardian*).tw. (7) 23 ((placement* or foster*) adj2 (care* or family or families)).tw. (3144) 24 ((kinship or nonkinship or non kinship or connected or substitute*) adj1 care*).tw. (279) 25 or/19-24 (9589)

Medline Strategy, searched 10th June 2019
Database: Ovid MEDLINE(R) 1946 to June 10, 2019
Search Strategy:

26 exp Infant/ or Infant Health/ or Infant Welfare/ (1098738)

27 (prematur* or pre-matur* or preterm* or pre-term* or infan* or newborn* or new-born* or perinat* or peri-nat* or neonat* or neo-nat* or baby* or babies or toddler*).ti,ab,in,jn. (811620)

28 exp Child/ or exp Child Behavior/ or Child Health/ or Child Welfare/ (1838706)

29 Minors/ (2505)

30 (child* or minor or minors or boy* or girl* or kid or kids or young*).ti,ab,in,jn. (2212038)

31 exp pediatrics/ (55350)

32 (pediatric* or paediatric* or peadiatric*).ti,ab,in,jn. (768069)

33 Adolescent/ or Adolescent Behavior/ or Adolescent Health/ (1937435)

34 Puberty/ (12990)

35 (adolescen* or pubescen* or prepubescen* or pre-pubescen* or pubert* or prepubert* or pre-pubert* or teen* or preteen* or pre-teen* or juvenil* or youth* or under*age*).ti,ab,in,jn. (393509)

36 Schools/ (35128)

Medline Strategy, searched 10th June 2019 Database: Ovid MEDLINE(R) 1946 to June 10, 2019 Search Strategy:	
37	Child Day Care Centers/ or exp Nurseries/ or Schools, Nursery/ (8591)
38	(pre-school* or preschool* or kindergar* or daycare or day-care or nurser* or school* or pupil* or student*).ti,ab,jn. (440583)
39	("under 18*" or "under eighteen*" or "under 25*" or "under twenty five*").ti,ab. (3651)
40	or/26-39 (4935665)
41	18 and 40 (4519)
42	12 or 25 or 41 (15912)
43	animals/ not humans/ (4554892)
44	42 not 43 (15801)
45	limit 44 to english language (14199)
46	limit 45 to ed=19900101-20190606 (11059)
No study design filters were used for the search strategy	

Cost-effectiveness searches

Sources searched:

- Econlit (Ovid)
- Embase (Ovid)
- MEDLINE (Ovid)
- MEDLINE In-Process (Ovid)
- PsycINFO (Ovid)
- NHS EED (Wiley)

Search filters to retrieve cost utility, economic evaluations and quality of life papers were appended to the MEDLINE, Embase and PsycINFO searches reported above. The searches were conducted in July 2019. The searches were re-run in October 2020.

Databases	Date searched	Version/files	No. retrieved with CU filter	No retrieved with Econ Eval and QoL filters	No. retrieved with Econ Eval and QoL filters and NOT out CU results
EconLit (Ovid)	09/07/2019	1886 to June 27, 2019	176 (no filter)	Not run again	Not run again
NHS Economic Evaluation Database (NHS EED) (legacy database)	09/07/2019	09/07/2019	105 (no filter)	Not run again	Not run again
Embase (Ovid)	09/07/2019 15/07/2019	1946 to July 08, 2019 1988 to 2019 Week 28	307	2228	1908

MEDLINE (Ovid)	09/07/2019 15/07/2019	1946 to July 08, 2019 1946 to July 12, 2019	269	1136	1135
MEDLINE In-Process (Ovid)	09/07/2019 15/07/2019	1946 to July 08, 2019 1946 to July 12, 2019	6	122	93
MEDLINE Epub Ahead of Print	09/07/2019 15/07/2019	July 08, 2019 July 12, 2019	12	38	29
PsycINFO (Ovid)	09/07/2019 15/07/2019	1987 to July Week 1 2019 1987 to July Week 2 2019	265	Not searched for econ eval and QoL results	Not searched for econ eval and QoL results

Search strategies: Cost Utility filter

Database: PsycINFO <1987 to July Week 1 2019>

Search Strategy:

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1 Foster children/ (1566)

2 Adopted children/ (1578)

3 ("looked after" adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (433)

4 ("care leaver*" or "leaving care").tw. (282)

5 (("in care" or "care experience*") adj1 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (772)

6 ((nonparent* or non-parent* or parentless* or parent-less) adj3 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (309)

7 ((relinquish* or estrange*) adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (142)

8 "ward of court*".tw. (0)

9 ((child* or infancy or adolescen* or juvenile* or toddler* or infant* or teen* or tween* or young* or baby or babies or twin* or sibling* or youth*) adj2 (abandon* or unwanted or unaccompanied or homeless or asylum* or refugee*)).ti. (1638)

10 or/1-9 (6348)

11 group homes/ (884)

12 halfway houses/ (114)

13 (("out of home" or " out-of-home" or placement* or "semi independent" or "semi-independent") adj2 care*).tw. (1917)

14 ((residential or supported or remand* or secure or correctional) adj1 (accommodation* or institut* or care or lodging or home* or centre* or center* or facilit*)).tw. (8380)

15 or/11-14 (10954)

16 orphanages/ (301)

17 adoption/ (2693)

18 foster home care/ (0)

19 (special adj1 guardian*).tw. (5)

20 ((placement* or foster*) adj2 (care* or family or families)).tw. (7275)

21 ((kinship or nonkinship or non kinship or connected or substitute*) adj1 care*).tw. (790)

22 or/16-21 (10189)

23 exp Infant/ or Infant Health/ or Infant Welfare/ (0)

24 (prematur* or pre-matur* or preterm* or pre-term* or infan* or newborn* or new-born* or perinat* or peri-nat* or neonat* or neo-nat* or baby* or babies or toddler*).ti,ab,in,jn. (119577)

25 exp Child/ or exp Child Behavior/ or Child Health/ or Child Welfare/ (8166)

26 Minors/ (0)

27 (child* or minor or minors or boy* or girl* or kid or kids or young*).ti,ab,in,jn. (762095)

28 exp pediatrics/ (26284)

29 (pediatric* or paediatric* or peadiatric*).ti,ab,in,jn. (71640)

30 Adolescent/ or Adolescent Behavior/ or Adolescent Health/ (1874)

31 Puberty/ (2287)

32 (adolescen* or pubescen* or prepubescen* or pre-pubescen* or pubert* or prepubert* or pre-pubert* or teen* or preteen* or pre-teen* or juvenil* or youth* or under*age*).ti,ab,in,jn. (291098)

33 Schools/ (25726)

34 Child Day Care Centers/ or exp Nurseries/ or Schools, Nursery/ (0)

35 (pre-school* or preschool* or kindergar* or daycare or day-care or nurser* or school* or pupil* or student*).ti,ab,jn. (578348)

36 ("under 18*" or "under eighteen*" or "under 25*" or "under twenty five*").ti,ab. (811)

37 or/23-36 (1281612)

38 15 and 37 (5647)

39 10 or 22 or 38 (18267)

40 animals/ not humans/ (4267)

41 39 not 40 (18266)

42 limit 41 to english language (17063)

43 (1990* or 1991* or 1992* or 1993* or 1994* 1995* or 1996* or 1997* or 1998* or 1999* or 2000* or 2001* or 2002* or 2003* or 2004* or 2005* or 2006* or 2007* or 2008* or 2009* or 2010* or 2011* or 2012* or 2013* or 2014* or 2015* or 2016* or 2017* or 2018* or 2019*).up. (3398945)

44 42 and 43 (16072)

45 Markov chains/ (1336)

46 ((qualit* adj2 adjust* adj2 life*) or qaly*).tw. (1638)

47 (EQ5D* or EQ-5D* or ((euroqol or euro-qol or euroquol or euro-quol or eurocol or euro-col) adj3 ("5" or five)) or (european* adj2 quality adj3 ("5" or five))).tw. (1711)

48 "Costs and Cost Analysis"/ (14750)

49 cost.ti. (7067)

50 (cost* adj2 utilit*).tw. (745)

51 (cost* adj2 (effective* or assess* or evaluat* or analys* or model* or benefit* or threshold* or quality or expens* or saving* or reduc*)).tw. (29345)

52 (economic* adj2 (evaluat* or assess* or analys* or model* or outcome* or benefit* or threshold* or expens* or saving* or reduc*)).tw. (7025)

53 ((incremental* adj2 cost*) or ICER).tw. (1058)

54 utilities.tw. (1742)

55 markov*.tw. (3797)

56 (dollar* or USD or cents or pound or pounds or GBP or sterling* or pence or euro or euros or yen or JPY).tw. (8371)

57 ((utility or effective*) adj2 analys*).tw. (2844)

58 (willing* adj2 pay*).tw. (2253)

59 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 (60767)

60 44 and 59 (265)

Database: Ovid MEDLINE(R) <1946 to July 08, 2019>

(line 65)

Search Strategy:

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1 child, orphaned/ (661)

2 child, foster/ (74)

3 child, adopted/ (48)

4 adolescent, institutionalized/ (126)

5 ("looked after" adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (123)

6 ("care leaver*" or "leaving care").tw. (32)

7 (("in care" or "care experience*") adj1 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (240)

8 ((nonparent* or non-parent* or parentless* or parent-less) adj3 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (111)

9 ((relinquish* or estrange*) adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (74)

10 ((child* or infancy or adolescen* or juvenile* or toddler* or infant* or teen* or tween* or young* or baby or babies or twin* or sibling* or youth*) adj2 (orphan* or foster* or adopt* or abandon* or unwanted or unaccompanied or homeless or asylum* or refugee*)).ti. (2986)

11 "ward of court*".tw. (12)

12 or/1-11 (4244)

13 residential facilities/ (5299)

14 group homes/ (950)

15 halfway houses/ (1052)

16 (("out of home" or " out-of-home" or placement* or "semi independent" or "semi-independent") adj2 care*).tw. (1136)

17 ((residential or supported or remand* or secure or correctional) adj1 (accommodation* or institut* or care or lodging or home* or centre* or center* or facilit*)).tw. (6631)

18 or/13-17 (13661)

19 orphanages/ (436)

20 adoption/ (4728)

21 foster home care/ (3508)

22 (special adj1 guardian*).tw. (7)

23 ((placement* or foster*) adj2 (care* or family or families)).tw. (3156)

24 ((kinship or nonkinship or non kinship or connected or substitute*) adj1 care*).tw. (282)

25 or/19-24 (9605)

26 exp Infant/ or Infant Health/ or Infant Welfare/ (1101046)

27 (prematur* or pre-matur* or preterm* or pre-term* or infan* or newborn* or new-born* or perinat* or peri-nat* or neonat* or neo-nat* or baby* or babies or toddler*).ti,ab,in,jn. (813997)

28 exp Child/ or exp Child Behavior/ or Child Health/ or Child Welfare/ (1843400)

29 Minors/ (2509)

30 (child* or minor or minors or boy* or girl* or kid or kids or young*).ti,ab,in,jn. (2221342)

31 exp pediatrics/ (55492)

32 (pediatric* or paediatric* or peadiatric*).ti,ab,in,jn. (771944)

33 Adolescent/ or Adolescent Behavior/ or Adolescent Health/ (1942946)

34 Puberty/ (13005)

35 (adolescen* or pubescen* or prepubescen* or pre-pubescen* or pubert* or prepubert* or pre-pubert* or teen* or preteen* or pre-teen* or juvenil* or youth* or under*age*).ti,ab,in,jn. (395382)

36 Schools/ (35299)

37 Child Day Care Centers/ or exp Nurseries/ or Schools, Nursery/ (8611)

38 (pre-school* or preschool* or kindergar* or daycare or day-care or nurser* or school* or pupil* or student*).ti,ab,jn. (442260)

39 ("under 18*" or "under eighteen*" or "under 25*" or "under twenty five*").ti,ab. (3665)

40 or/26-39 (4951548)

41 18 and 40 (4537)

42 12 or 25 or 41 (15959)

43 animals/ not humans/ (4563292)

44 42 not 43 (15848)

45	limit 44 to english language (14243)
46	limit 45 to ed=19900101-20190606 (11059)
47	limit 45 to dt=19900101-20190611 (10685)
48	Markov Chains/ (13500)
49	Quality-Adjusted Life Years/ or (qualit* adj2 adjust* adj2 life*).tw. or qaly*.tw. (15718)
50	(EQ5D* or EQ-5D* or ((euroqol or euro-qol or euroquol or euro-quol or eurocol or euro-col) adj3 ("5" or five)) or (european* adj2 quality adj3 ("5" or five))).tw. (6545)
51	Cost-Benefit Analysis/ (77012)
52	exp Models, Economic/ (14227)
53	cost.ti. (60952)
54	(cost* adj2 utilit*).tw. (4392)
55	(cost* adj2 (effective* or assess* or evaluat* or analys* or model* or benefit* or threshold* or quality or expens* or saving* or reduc*)).tw. (162969)
56	(economic* adj2 (evaluat* or assess* or analys* or model* or outcome* or benefit* or threshold* or expens* or saving* or reduc*)).tw. (26515)
57	((incremental* adj2 cost*) or ICER).tw. (10100)
58	utilities.tw. (5428)
59	markov*.tw. (16739)
60	(dollar* or USD or cents or pound or pounds or GBP or sterling* or pence or euro or euros or yen or JPY).tw. (36613)
61	((utility or effective*) adj2 analys*).tw. (14480)
62	(willing* adj2 pay*).tw. (4632)
63	or/48-62 (287270)

64 45 and 63 (311)

65 46 and 63 (269)

Database: Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations <1946 to July 08, 2019>

(Line 66)

Search Strategy:

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1 child, orphaned/ (0)

2 child, foster/ (0)

3 child, adopted/ (0)

4 adolescent, institutionalized/ (0)

5 ("looked after" adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (17)

6 ("care leaver*" or "leaving care").tw. (6)

7 (("in care" or "care experience*") adj1 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (45)

8 ((nonparent* or non-parent* or parentless* or parent-less) adj3 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (18)

9 ((relinquish* or estrange*) adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (4)

10 ((child* or infancy or adolescen* or juvenile* or toddler* or infant* or teen* or tween* or young* or baby or babies or twin* or sibling* or youth*) adj2 (orphan* or foster* or adopt* or abandon* or unwanted or unaccompanied or homeless or asylum* or refugee*)).ti. (361)

11 "ward of court*".tw. (0)

12 or/1-11 (443)

13 residential facilities/ (0)

14 group homes/ (0)

15 halfway houses/ (0)

16 (("out of home" or " out-of-home" or placement* or "semi independent" or "semi-independent") adj2 care*).tw. (122)

17 ((residential or supported or remand* or secure or correctional) adj1 (accommodation* or institut* or care or lodging or home* or centre* or center* or facilit*)).tw. (785)

18 or/13-17 (897)

19 orphanages/ (0)

20 adoption/ (0)

21 foster home care/ (0)

22 (special adj1 guardian*).tw. (0)

23 ((placement* or foster*) adj2 (care* or family or families)).tw. (367)

24 ((kinship or nonkinship or non kinship or connected or substitute*) adj1 care*).tw. (31)

25 or/20-24 (391)

26 exp Infant/ or Infant Health/ or Infant Welfare/ (0)

27 (prematur* or pre-matur* or preterm* or pre-term* or infan* or newborn* or new-born* or perinat* or peri-nat* or neonat* or neo-nat* or baby* or babies or toddler*).ti,ab,in,jn. (71122)

28 exp Child/ or exp Child Behavior/ or Child Health/ or Child Welfare/ (0)

29 Minors/ (0)

30 (child* or minor or minors or boy* or girl* or kid or kids or young*).ti,ab,in,jn. (282655)

31 exp pediatrics/ (0)

32 (pediatric* or paediatric* or peadiatric*).ti,ab,in,jn. (105594)

33 Adolescent/ or Adolescent Behavior/ or Adolescent Health/ (0)

34 Puberty/ (0)

35 (adolescen* or pubescen* or prepubescen* or pre-pubescen* or pubert* or prepubert* or pre-pubert* or teen* or preteen* or pre-teen* or juvenil* or youth* or under*age*).ti,ab,in,jn. (52576)

36 Schools/ (0)

37 Child Day Care Centers/ or exp Nurseries/ or Schools, Nursery/ (0)

38 (pre-school* or preschool* or kindergar* or daycare or day-care or nurser* or school* or pupil* or student*).ti,ab,jn. (61256)

39 ("under 18*" or "under eighteen*" or "under 25*" or "under twenty five*").ti,ab. (516)

40 or/26-39 (410151)

41 18 and 40 (260)

42 12 or 25 or 41 (962)

43 animals/ not humans/ (0)

44 42 not 43 (962)

45 limit 44 to english language (945)

46 limit 45 to ed=19900101-20190606 (256)

47 limit 45 to dt=19900101-20190611 (916)

48 Markov Chains/ (0)

49 Quality-Adjusted Life Years/ or (qualit* adj2 adjust* adj2 life*).tw. or qaly*.tw. (1713)

50 (EQ5D* or EQ-5D* or ((euroqol or euro-qol or euroquol or euro-quol or eurocol or euro-col) adj3 ("5" or five)) or (european* adj2 quality adj3 ("5" or five))).tw. (1364)

51 Cost-Benefit Analysis/ (0)

52 exp Models, Economic/ (0)

53 cost.ti. (9867)

54 (cost* adj2 utilit*).tw. (767)

55 (cost* adj2 (effective* or assess* or evaluat* or analys* or model* or benefit* or threshold* or quality or expens* or saving* or reduc*)).tw. (29070)

56 (economic* adj2 (evaluat* or assess* or analys* or model* or outcome* or benefit* or threshold* or expens* or saving* or reduc*)).tw. (4431)

57 ((incremental* adj2 cost*) or ICER).tw. (1607)

58 utilities.tw. (947)

59 markov*.tw. (4984)

60 (dollar* or USD or cents or pound or pounds or GBP or sterling* or pence or euro or euros or yen or JPY).tw. (4280)

61 ((utility or effective*) adj2 analys*).tw. (2504)

62 (willing* adj2 pay*).tw. (911)

63 or/48-62 (45705)

64 45 and 63 (28)

65 46 and 63 (6)

66 47 and 63 (27)

Database: Ovid MEDLINE(R) Epub Ahead of Print <July 08, 2019>

(Line 64)

Search Strategy:

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1 child, orphaned/ (0)

2 child, foster/ (0)

3 child, adopted/ (0)

4 adolescent, institutionalized/ (0)

5 ("looked after" adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (8)

6 ("care leaver*" or "leaving care").tw. (5)

7 (("in care" or "care experience*") adj1 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (13)

8 ((nonparent* or non-parent* or parentless* or parent-less) adj3 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (8)

9 ((relinquish* or estrange*) adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (3)

10 ((child* or infancy or adolescen* or juvenile* or toddler* or infant* or teen* or tween* or young* or baby or babies or twin* or sibling* or youth*) adj2 (orphan* or foster* or adopt* or abandon* or unwanted or unaccompanied or homeless or asylum* or refugee*)).ti. (170)

11 "ward of court*".tw. (0)

12 or/1-11 (198)

13 residential facilities/ (0)

14 group homes/ (0)

15 halfway houses/ (0)

16 (("out of home" or " out-of-home" or placement* or "semi independent" or "semi-independent") adj2 care*).tw. (60)

17 ((residential or supported or remand* or secure or correctional) adj1 (accommodation* or institut* or care or lodging or home* or centre* or center* or facilit*)).tw. (232)

18 or/13-17 (288)

19 orphanages/ (0)

20 adoption/ (0)

21 foster home care/ (0)

22 (special adj1 guardian*).tw. (0)

23 ((placement* or foster*) adj2 (care* or family or families)).tw. (185)

24 ((kinship or nonkinship or non kinship or connected or substitute*) adj1 care*).tw. (11)

25 or/20-24 (191)

26 exp Infant/ or Infant Health/ or Infant Welfare/ (0)

27 (prematur* or pre-matur* or preterm* or pre-term* or infan* or newborn* or new-born* or perinat* or peri-nat* or neonat* or neo-nat* or baby* or babies or toddler*).ti,ab,in,jn. (14304)

28 exp Child/ or exp Child Behavior/ or Child Health/ or Child Welfare/ (0)

29	Minors/ (0)
30	(child* or minor or minors or boy* or girl* or kid or kids or young*).ti,ab,in,jn. (49388)
31	exp pediatrics/ (0)
32	(pediatric* or paediatric* or peadiatric*).ti,ab,in,jn. (19442)
33	Adolescent/ or Adolescent Behavior/ or Adolescent Health/ (0)
34	Puberty/ (0)
35	(adolescen* or pubescen* or prepubescen* or pre-pubescen* or pubert* or prepubert* or pre-pubert* or teen* or preteen* or pre-teen* or juvenil* or youth* or under*age*).ti,ab,in,jn. (12671)
36	Schools/ (0)
37	Child Day Care Centers/ or exp Nurseries/ or Schools, Nursery/ (0)
38	(pre-school* or preschool* or kindergar* or daycare or day-care or nurser* or school* or pupil* or student*).ti,ab,jn. (11661)
39	("under 18*" or "under eighteen*" or "under 25*" or "under twenty five*").ti,ab. (95)
40	or/26-39 (72744)
41	18 and 40 (102)
42	12 or 25 or 41 (409)
43	animals/ not humans/ (0)
44	42 not 43 (409)
45	limit 44 to english language (407)
46	limit 45 to ed=19900101-20190606 (0)
47	limit 45 to dt=19900101-20190611 (382)

48 Markov Chains/ (0)

49 Quality-Adjusted Life Years/ or (qualit* adj2 adjust* adj2 life*).tw. or qaly*.tw. (419)

50 (EQ5D* or EQ-5D* or ((euroqol or euro-qol or euroquol or euro-quol or eurocol or euro-col) adj3 ("5" or five)) or (european* adj2 quality adj3 ("5" or five))).tw. (316)

51 Cost-Benefit Analysis/ (0)

52 exp Models, Economic/ (0)

53 cost.ti. (1350)

54 (cost* adj2 utilit*).tw. (162)

55 (cost* adj2 (effective* or assess* or evaluat* or analys* or model* or benefit* or threshold* or quality or expens* or saving* or reduc*)).tw. (4696)

56 (economic* adj2 (evaluat* or assess* or analys* or model* or outcome* or benefit* or threshold* or expens* or saving* or reduc*)).tw. (838)

57 ((incremental* adj2 cost*) or ICER).tw. (342)

58 utilities.tw. (155)

59 markov*.tw. (807)

60 (dollar* or USD or cents or pound or pounds or GBP or sterling* or pence or euro or euros or yen or JPY).tw. (712)

61 ((utility or effective*) adj2 analys*).tw. (482)

62 (willing* adj2 pay*).tw. (178)

63 or/48-62 (7346)

64 45 and 63 (12)

Database: Embase <1988 to 2019 Week 27>

Search Strategy:

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1 orphaned child/ (606)

2 foster child/ (72)

3 adopted child/ (507)

4 institutionalized adolescent/ (16)

5 ("looked after" adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (239)

6 ("care leaver*" or "leaving care").tw. (60)

7 (("in care" or "care experience*") adj1 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (328)

8 ((nonparent* or non-parent* or parentless* or parent-less) adj3 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (137)

9 ((relinquish* or estrange*) adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (66)

10 ((child* or infancy or adolescen* or juvenile* or toddler* or infant* or teen* or tween* or young* or baby or babies or twin* or sibling* or youth*) adj2 (orphan* or foster* or adopt* or abandon* or unwanted or unaccompanied or homeless or asylum* or refugee*)).ti. (3301)

11 "ward of court*".tw. (13)

12 or/1-11 (4918)

13 residential home/ (5797)

14 halfway house/ (616)

15 (("out of home" or " out-of-home" or placement* or "semi independent" or "semi-independent") adj2 care*).tw. (1546)

16 ((residential or supported or remand* or secure or correctional) adj1 (accommodation* or institut* or care or lodging or home* or centre* or center* or facilit*)).tw. (8776)

17 or/13-16 (15272)

18 orphanage/ (851)

19 foster care/ (3851)

20 (special adj1 guardian*).tw. (7)

21 ((placement* or foster*) adj2 (care* or family or families)).tw. (4024)

22 ((kinship or nonkinship or non kinship or connected or substitute*) adj1 care*).tw. (359)

23 *adoption/ (2710)

24 or/18-23 (6865)

25 exp juvenile/ or Child Behavior/ or Child Welfare/ or Child Health/ or infant welfare/ or "minor (person)"/ or elementary student/ (2784798)

26 (prematur* or pre-matur* or preterm* or pre-term* or infan* or newborn* or new-born* or perinat* or peri-nat* or neonat* or neo-nat* or baby* or babies or toddler*).ti,ab,in,ad,jw. (990094)

27 (child* or minor or minors or boy* or girl* or kid or kids or young*).ti,ab,in,ad,jw. (3070275)

28 exp pediatrics/ (89360)

29 (pediatric* or paediatric* or peadiatric*).ti,ab,in,ad,jw. (1438284)

30 exp adolescence/ or exp adolescent behavior/ or adolescent health/ or high school student/ or middle school student/ (88098)

31 (adolescen* or pubescen* or prepubescen* or pre-pubescen* or pubert* or prepubert* or pre-pubert* or teen* or preteen* or pre-teen* or juvenil* or youth* or under*age*).ti,ab,in,ad,jw. (568613)

32 school/ or high school/ or kindergarten/ or middle school/ or primary school/ or nursery school/ or day care/ (91653)

33 (pre-school* or preschool* or kindergar* or daycare or day-care or nurser* or school* or pupil* or student*).ti,ab,jw. (588621)

34 ("under 18*" or "under eighteen*" or "under 25*" or "under twenty five*").ti,ab. (6349)

35 or/25-34 (5334085)

36 17 and 35 (5115)

37 24 and 35 (5358)

38 12 or 24 or 36 or 37 (14911)

39 nonhuman/ not human/ (3937063)

40 38 not 39 (14760)

41 (letter or editorial).pt. (1540594)

42 (conference abstract or conference paper or conference proceeding or "conference review").pt. (4222564)

43 41 or 42 (5763158)

44 40 not 43 (12196)

45 limit 44 to dc=19900101-20190606 (11884)

46 limit 45 to english language (11023)

47 Markov chain/ (4090)

48 quality adjusted life year/ or (qualit* adj2 adjust* adj2 life*).tw. or qaly*.tw. (30409)

49 (EQ5D* or EQ-5D* or ((euroqol or euro-qol or euroquol or euro-quol or eurocol or euro-col) adj3 ("5" or five)) or (european* adj2 quality adj3 ("5" or five))).tw. (15875)

50 "cost benefit analysis"/ (76518)

51 exp economic model/ (1504)

52 cost.ti. (88995)

53 (cost* adj2 utilit*).tw. (8688)

54 (cost* adj2 (effective* or assess* or evaluat* or analys* or model* or benefit* or threshold* or quality or expens* or saving* or reduc*)).tw. (264435)

55 (economic* adj2 (evaluat* or assess* or analys* or model* or outcome* or benefit* or threshold* or expens* or saving* or reduc*)).tw. (44462)

56 ((incremental* adj2 cost*) or ICER).tw. (20797)

57 utilities.tw. (10291)

58 markov*.tw. (26990)

59 (dollar* or USD or cents or pound or pounds or GBP or sterling* or pence or euro or euros or yen or JPY).tw. (49359)

60 ((utility or effective*) adj2 analys*).tw. (25580)

61 (willing* adj2 pay*).tw. (8767)

62 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 (437018)

63 46 and 62 (307)

64 (conference abstract or conference paper or conference proceeding or "conference review" or letter or editorial).pt. (5763158)

65 63 not 64 (307)

Database: Econlit <1886 to June 27, 2019>

Search Strategy:

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1 [child, orphaned/] (0)

2 [child, foster/] (0)

3 [child, adopted/] (0)

4 [adolescent, institutionalized/] (0)

5 ("looked after" adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (3)

6 ("care leaver*" or "leaving care").tw. (2)

7 (("in care" or "care experience*") adj1 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (15)

8 ((nonparent* or non-parent* or parentless* or parent-less) adj3 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (34)

9 ((relinquish* or estrange*) adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (6)

10 ((child* or infancy or adolescen* or juvenile* or toddler* or infant* or teen* or tween* or young* or baby or babies or twin* or sibling* or youth*) adj2 (orphan* or foster* or adopt* or abandon* or unwanted or unaccompanied or homeless or asylum* or refugee*)).ti. (111)

11 "ward of court*".tw. (0)

12 or/1-11 (163)

13 [residential facilities/] (0)

14 [group homes/] (0)

15 [halfway houses/] (0)

16 (("out of home" or " out-of-home" or placement* or "semi independent" or "semi-independent") adj2 care*).tw. (42)

17 ((residential or supported or remand* or secure or correctional) adj1 (accommodation* or institut* or care or lodging or home* or centre* or center* or facilit*)).tw. (208)

18 or/13-17 (250)

19 [orphanages/] (0)

20 [adoption/] (0)

21 [foster home care/] (0)

22 (special adj1 guardian*).tw. (0)

23 ((placement* or foster*) adj2 (care* or family or families)).tw. (154)

24 ((kinship or nonkinship or non kinship or connected or substitute*) adj1 care*).tw. (23)

25 or/20-24 (172)

26 [exp Infant/ or Infant Health/ or Infant Welfare/] (0)

27 (prematur* or pre-matur* or preterm* or pre-term* or infan* or newborn* or new-born* or perinat* or peri-nat* or neonat* or neo-nat* or baby* or babies or toddler*).ti,ab,in,jn. (5404)

28 [exp Child/ or exp Child Behavior/ or Child Health/ or Child Welfare/] (0)

29 [Minors/] (0)

30 (child* or minor or minors or boy* or girl* or kid or kids or young*).ti,ab,in,jn. (45263)

31 [exp pediatrics/] (0)

32 (pediatric* or paediatric* or peadiatric*).ti,ab,in,jn. (168)

33 [Adolescent/ or Adolescent Behavior/ or Adolescent Health/] (0)

34 [Puberty/] (0)

35 (adolescen* or pubescen* or prepubescen* or pre-pubescen* or pubert* or prepubert* or pre-pubert* or teen* or preteen* or pre-teen* or juvenil* or youth* or under*age*).ti,ab,in,jn. (8812)

36 [Schools/] (0)

37 [Child Day Care Centers/ or exp Nurseries/ or Schools, Nursery/] (0)

38 (pre-school* or preschool* or kindergar* or daycare or day-care or nurser* or school* or pupil* or student*).ti,ab,jn. (47608)

39 ("under 18*" or "under eighteen*" or "under 25*" or "under twenty five*").ti,ab. (56)

40 or/26-39 (91121)

41 18 and 40 (71)

42 12 or 25 or 41 (359)

43 limit 42 to yr="2009 -Current" (176)

Database: NHSEED (CRD)

1 MeSH DESCRIPTOR Child, Orphaned EXPLODE ALL TREES IN NHSEED 0

2 MeSH DESCRIPTOR Adoption EXPLODE ALL TREES IN NHSEED 3

3 (("looked after" NEAR2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*))) IN NHSEED 0

4 ("care leaver*" or "leaving care") IN NHSEED 0

5 ("in care") IN NHSEED 40

6 ("care experience") IN NHSEED 1

7 (nonparent* or non-parent* or parentless* or parent-less) IN NHSEED 0

8 (relinquish* or estrange*) IN NHSEED 0

9 (orphan* or foster* or adopt* or abandon* or unwanted or unaccompanied or homeless or asylum* or refugee*):TI IN NHSEED 22

10 ("ward of court*") IN NHSEED 0

11 #1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 64

12 (((residential or supported or remand* or secure or correctional) NEAR1 (accommodation* or institut* or care or lodging or home* or centre* or center* or facilit*))) IN NHSEED 88

13 MeSH DESCRIPTOR orphanages EXPLODE ALL TREES IN NHSEED 0

14 (guardian) IN NHSEED 13

15 (((placement* or foster*) NEAR2 (care* or family or families))) IN NHSEED 7

16 (((kinship or nonkinship or non kinship or connected or substitute*) NEAR1 care*)) IN NHSEED 1

17 #13 OR #14 OR #15 OR #16 21

18 (infan* or newborn* or new-born* or perinat* or peri-nat* or neonat* or neo-nat* or baby* or babies or toddler* or child* or minor or minors or boy* or girl* or kid or kids or young* or adolescen* or pubescen* or prepubescen* or pre-pubescen* or pubert* or prepubert* or pre-pubert* or teen* or preteen* or pre-teen* or juvenil* or youth* or under*age*) IN NHSEED 5275

19 #12 AND #18 23

20 #11 OR #17 OR #19 105

Search strategies: Economic Evaluation and Quality of Life filters

Database: Ovid MEDLINE(R) <1946 to July 12, 2019>

Search Strategy:

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1 child, orphaned/ (664)

2 child, foster/ (74)

3 child, adopted/ (48)

4 adolescent, institutionalized/ (126)

5 ("looked after" adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (123)

6 ("care leaver*" or "leaving care").tw. (32)

7 (("in care" or "care experience*") adj1 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (240)

8 ((nonparent* or non-parent* or parentless* or parent-less) adj3 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (111)

9 ((relinquish* or estrange*) adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (74)

10 ((child* or infancy or adolescen* or juvenile* or toddler* or infant* or teen* or tween* or young* or baby or babies or twin* or sibling* or youth*) adj2 (orphan* or foster* or adopt* or abandon* or unwanted or unaccompanied or homeless or asylum* or refugee*)).ti. (2989)

11 "ward of court*".tw. (12)

12 or/1-11 (4249)

13 residential facilities/ (5301)

14 group homes/ (951)

15 halfway houses/ (1052)

16 (("out of home" or " out-of-home" or placement* or "semi independent" or "semi-independent") adj2 care*).tw. (1136)

17 ((residential or supported or remand* or secure or correctional) adj1 (accommodation* or institut* or care or lodging or home* or centre* or center* or facilit*)).tw. (6640)

18 or/13-17 (13672)

19 orphanages/ (438)

20 adoption/ (4729)

21 foster home care/ (3508)

22 (special adj1 guardian*).tw. (7)

23 ((placement* or foster*) adj2 (care* or family or families)).tw. (3156)

24 ((kinship or nonkinship or non kinship or connected or substitute*) adj1 care*).tw. (282)

25 or/19-24 (9924)

26 exp Infant/ or Infant Health/ or Infant Welfare/ (1101512)

27 (prematur* or pre-matur* or preterm* or pre-term* or infan* or newborn* or new-born* or perinat* or peri-nat* or neonat* or neo-nat* or baby* or babies or toddler*).ti,ab,in,jn. (814530)

28 exp Child/ or exp Child Behavior/ or Child Health/ or Child Welfare/ (1844269)

29 Minors/ (2509)

30 (child* or minor or minors or boy* or girl* or kid or kids or young*).ti,ab,in,jn. (2223285)

31 exp pediatrics/ (55515)

32 (pediatric* or paediatric* or peadiatric*).ti,ab,in,jn. (772838)

33 Adolescent/ or Adolescent Behavior/ or Adolescent Health/ (1944098)

34 Puberty/ (13005)

35 (adolescen* or pubescen* or prepubescen* or pre-pubescen* or pubert* or prepubert* or pre-pubert* or teen* or preteen* or pre-teen* or juvenil* or youth* or under*age*).ti,ab,in,jn. (395763)

36 Schools/ (35334)

37 Child Day Care Centers/ or exp Nurseries/ or Schools, Nursery/ (8611)

38 (pre-school* or preschool* or kindergar* or daycare or day-care or nurser* or school* or pupil* or student*).ti,ab,jn. (442578)

39 ("under 18*" or "under eighteen*" or "under 25*" or "under twenty five*").ti,ab. (3674)

40 or/26-39 (4954893)

41 18 and 40 (4538)

42 12 or 25 or 41 (16193)

43 animals/ not humans/ (4565244)

44 42 not 43 (16082)

45 limit 44 to english language (14416)

46 limit 45 to ed=19900101-20190714 (11278)

47 limit 45 to dt=19900101-20190715 (10852)

48 Markov Chains/ (13507)

49 Quality-Adjusted Life Years/ or (qualit* adj2 adjust* adj2 life*).tw. or qaly*.tw. (15740)

50 (EQ5D* or EQ-5D* or ((euroqol or euro-qol or euroquol or euro-quol or eurocol or euro-col) adj3 ("5" or five)) or (european* adj2 quality adj3 ("5" or five))).tw. (6562)

51 Cost-Benefit Analysis/ (77068)

52 exp Models, Economic/ (14240)

53 cost.ti. (61003)

54 (cost* adj2 utilit*).tw. (4395)

55 (cost* adj2 (effective* or assess* or evaluat* or analys* or model* or benefit* or threshold* or quality or expens* or saving* or reduc*)).tw. (163128)

56 (economic* adj2 (evaluat* or assess* or analys* or model* or outcome* or benefit* or threshold* or expens* or saving* or reduc*)).tw. (26542)

57 ((incremental* adj2 cost*) or ICER).tw. (10113)

58 utilities.tw. (5434)

59 markov*.tw. (16747)

60 (dollar* or USD or cents or pound or pounds or GBP or sterling* or pence or euro or euros or yen or JPY).tw. (36633)

61 ((utility or effective*) adj2 analys*).tw. (14500)

62 (willing* adj2 pay*).tw. (4638)

63 or/48-62 (287514)

64 45 and 63 (314)

65 46 and 63 (272)

66 47 and 63 (267)

67 Economics/ (27059)

68 exp "Costs and Cost Analysis"/ (226218)

69	Economics, Dental/ (1906)
70	exp Economics, Hospital/ (23683)
71	exp Economics, Medical/ (14107)
72	Economics, Nursing/ (3986)
73	Economics, Pharmaceutical/ (2868)
74	Budgets/ (11138)
75	exp Models, Economic/ (14240)
76	Markov Chains/ (13507)
77	Monte Carlo Method/ (26889)
78	Decision Trees/ (10615)
79	econom$.tw. (220798)
80	cba.tw. (9569)
81	cea.tw. (19685)
82	cua.tw. (941)
83	markov$.tw. (16747)
84	(monte adj carlo).tw. (28270)
85	(decision adj3 (tree$ or analys$)).tw. (12136)
86	(cost or costs or costing$ or costly or costed).tw. (428019)
87	(price$ or pricing$).tw. (31251)

88 budget$.tw. (22462)

89 expenditure$.tw. (46305)

90 (value adj3 (money or monetary)).tw. (1946)

91 (pharmacoeconomic$ or (pharmaco adj economic$)).tw. (3350)

92 or/67-91 (869079)

93 "Quality of Life"/ (178315)

94 quality of life.tw. (210147)

95 "Value of Life"/ (5653)

96 Quality-Adjusted Life Years/ (11173)

97 quality adjusted life.tw. (9768)

98 (qaly$ or qald$ or qale$ or qtime$).tw. (8028)

99 disability adjusted life.tw. (2374)

100 daly$.tw. (2184)

101 Health Status Indicators/ (22927)

102 (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).tw. (21132)

103 (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw. (1258)

104 (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw. (4470)

105 (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw. (28)

106 (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw. (370)

107	(euroqol or euro qol or eq5d or eq 5d).tw. (7790)
108	(qol or hql or hqol or hrqol).tw. (39934)
109	(hye or hyes).tw. (58)
110	health$ year$ equivalent$.tw. (38)
111	utilit$.tw. (158839)
112	(hui or hui1 or hui2 or hui3).tw. (1208)
113	disutili$.tw. (351)
114	rosser.tw. (82)
115	quality of wellbeing.tw. (11)
116	quality of well-being.tw. (367)
117	qwb.tw. (186)
118	willingness to pay.tw. (3952)
119	standard gamble$.tw. (763)
120	time trade off.tw. (981)
121	time tradeoff.tw. (223)
122	tto.tw. (848)
123	or/93-122 (455927)
124	92 or 123 (1261859)
125	45 and 124 (1599)

126 46 and 124 (1395)

127 47 and 124 (1345)

128 125 not 64 (1300)

129 126 not 65 (1136)

130 127 not 66 (1090)

Database: Embase <1988 to 2019 Week 28>

Search Strategy:

----

1 orphaned child/ (608)

2 foster child/ (73)

3 adopted child/ (510)

4 institutionalized adolescent/ (16)

5 ("looked after" adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (239)

6 ("care leaver*" or "leaving care").tw. (60)

7 (("in care" or "care experience*") adj1 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (328)

8 ((nonparent* or non-parent* or parentless* or parent-less) adj3 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (137)

9 ((relinquish* or estrange*) adj2 (juvenile* or child* or adolescen* or toddler* or infant* or infancy* or teen* or tween* or young* or baby* or babies* or twin* or sibling* or youth*)).tw. (66)

10 ((child* or infancy or adolescen* or juvenile* or toddler* or infant* or teen* or tween* or young* or baby or babies or twin* or sibling* or youth*) adj2 (orphan* or foster* or adopt* or abandon* or unwanted or unaccompanied or homeless or asylum* or refugee*)).ti. (3308)

11 "ward of court*".tw. (13)

12 or/1-11 (4928)

13 residential home/ (5806)

14 halfway house/ (618)

15 (("out of home" or " out-of-home" or placement* or "semi independent" or "semi-independent") adj2 care*).tw. (1548)

16 ((residential or supported or remand* or secure or correctional) adj1 (accommodation* or institut* or care or lodging or home* or centre* or center* or facilit*)).tw. (8794)

17 or/13-16 (15298)

18 orphanage/ (851)

19 foster care/ (3854)

20 (special adj1 guardian*).tw. (7)

21 ((placement* or foster*) adj2 (care* or family or families)).tw. (4029)

22 ((kinship or nonkinship or non kinship or connected or substitute*) adj1 care*).tw. (360)

23 *adoption/ (2704)

24 or/18-23 (9315)

25 exp juvenile/ or Child Behavior/ or Child Welfare/ or Child Health/ or infant welfare/ or "minor (person)"/ or elementary student/ (2788952)

26 (prematur* or pre-matur* or preterm* or pre-term* or infan* or newborn* or new-born* or perinat* or peri-nat* or neonat* or neo-nat* or baby* or babies or toddler*).ti,ab,in,ad,jw. (991635)

27 (child* or minor or minors or boy* or girl* or kid or kids or young*).ti,ab,in,ad,jw. (3075545)

28 exp pediatrics/ (89475)

29 (pediatric* or paediatric* or peadiatric*).ti,ab,in,ad,jw. (1440596)

30 exp adolescence/ or exp adolescent behavior/ or adolescent health/ or high school student/ or middle school student/ (88253)

31 (adolescen* or pubescen* or prepubescen* or pre-pubescen* or pubert* or prepubert* or pre-pubert* or teen* or preteen* or pre-teen* or juvenil* or youth* or under*age*).ti,ab,in,ad,jw. (569652)

32 school/ or high school/ or kindergarten/ or middle school/ or primary school/ or nursery school/ or day care/ (91782)

33 (pre-school* or preschool* or kindergar* or daycare or day-care or nurser* or school* or pupil* or student*).ti,ab,jw. (589614)

34 ("under 18*" or "under eighteen*" or "under 25*" or "under twenty five*").ti,ab. (6369)

35 or/25-34 (5342804)

36 17 and 35 (5123)

37 24 and 35 (6834)

38 12 or 24 or 36 or 37 (16935)

39 nonhuman/ not human/ (3943285)

40 38 not 39 (16745)

41 (letter or editorial).pt. (1542836)

42 (conference abstract or conference paper or conference proceeding or "conference review").pt. (4231963)

43 41 or 42 (5774799)

44 40 not 43 (13711)

45 limit 44 to dc=19900101-20190606 (13274)

46 limit 45 to english language (12254)

47 Markov chain/ (4122)

48 quality adjusted life year/ or (qualit* adj2 adjust* adj2 life*).tw. or qaly*.tw. (30497)

49 (EQ5D* or EQ-5D* or ((euroqol or euro-qol or euroquol or euro-quol or eurocol or euro-col) adj3 ("5" or five)) or (european* adj2 quality adj3 ("5" or five))).tw. (15926)

50 "cost benefit analysis"/ (76622)

51 exp economic model/ (1511)

52 cost.ti. (89185)

53 (cost* adj2 utilit*).tw. (8710)

54 (cost* adj2 (effective* or assess* or evaluat* or analys* or model* or benefit* or threshold* or quality or expens* or saving* or reduc*)).tw. (264961)

55 (economic* adj2 (evaluat* or assess* or analys* or model* or outcome* or benefit* or threshold* or expens* or saving* or reduc*)).tw. (44536)

56 ((incremental* adj2 cost*) or ICER).tw. (20854)

57 utilities.tw. (10311)

58 markov*.tw. (27064)

59 (dollar* or USD or cents or pound or pounds or GBP or sterling* or pence or euro or euros or yen or JPY).tw. (49454)

60 ((utility or effective*) adj2 analys*).tw. (25652)

61 (willing* adj2 pay*).tw. (8797)

62 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 (437885)

63	46 and 62 (336)
64	exp Health Economics/ (754904)
65	exp "Health Care Cost"/ (271264)
66	exp Pharmacoeconomics/ (183070)
67	Monte Carlo Method/ (36411)
68	Decision Tree/ (11234)
69	econom$.tw. (313756)
70	cba.tw. (8890)
71	cea.tw. (29221)
72	cua.tw. (1304)
73	markov$.tw. (27064)
74	(monte adj carlo).tw. (42778)
75	(decision adj3 (tree$ or analys$)).tw. (20246)
76	(cost or costs or costing$ or costly or costed).tw. (667335)
77	(price$ or pricing$).tw. (48966)
78	budget$.tw. (32761)
79	expenditure$.tw. (65082)
80	(value adj3 (money or monetary)).tw. (3103)
81	(pharmacoeconomic$ or (pharmaco adj economic$)).tw. (8274)

82 or/64-81 (1524839)

83 "Quality of Life"/ (429148)

84 Quality Adjusted Life Year/ (24150)

85 Quality of Life Index/ (2640)

86 Short Form 36/ (26202)

87 Health Status/ (117486)

88 quality of life.tw. (394895)

89 quality adjusted life.tw. (17693)

90 (qaly$ or qald$ or qale$ or qtime$).tw. (18129)

91 disability adjusted life.tw. (3574)

92 daly$.tw. (3505)

93 (sf36 or sf 36 or short form 36 or shortform 36 or sf thirtysix or sf thirty six or shortform thirtysix or shortform thirty six or short form thirtysix or short form thirty six).tw. (38927)

94 (sf6 or sf 6 or short form 6 or shortform 6 or sf six or sfsix or shortform six or short form six).tw. (1902)

95 (sf12 or sf 12 or short form 12 or shortform 12 or sf twelve or sftwelve or shortform twelve or short form twelve).tw. (8636)

96 (sf16 or sf 16 or short form 16 or shortform 16 or sf sixteen or sfsixteen or shortform sixteen or short form sixteen).tw. (51)

97 (sf20 or sf 20 or short form 20 or shortform 20 or sf twenty or sftwenty or shortform twenty or short form twenty).tw. (403)

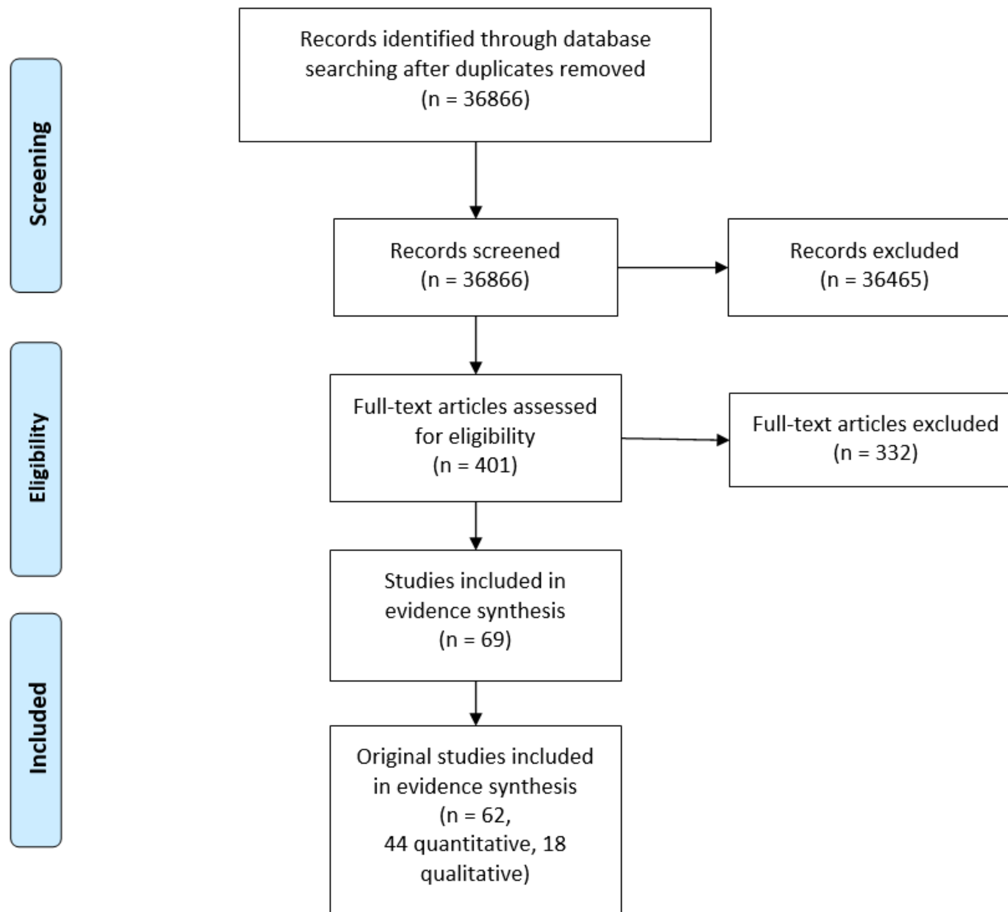
98 (euroqol or euro qol or eq5d or eq 5d).tw. (18036)

99 (qol or hql or hqol or hrqol).tw. (87193)

100 (hye or hyes).tw. (123)

101	health$ year$ equivalent$.tw. (41)
102	utilit$.tw. (256882)
103	(hui or hui1 or hui2 or hui3).tw. (2074)
104	disutili$.tw. (837)
105	rosser.tw. (116)
106	quality of wellbeing.tw. (38)
107	quality of well-being.tw. (464)
108	qwb.tw. (234)
109	willingness to pay.tw. (7664)
110	standard gamble$.tw. (1054)
111	time trade off.tw. (1611)
112	time tradeoff.tw. (279)
113	tto.tw. (1529)
114	or/83-113 (891635)
115	82 or 114 (2273922)
116	46 and 115 (2228)
117	116 not 63 (1908)

Appendix C – Effectiveness evidence study selection



Appendix D – Effectiveness evidence

Quantitative evidence

Alderson 2020

Study details

Study type	Randomised controlled trial (RCT) Pilot
Study location	UK
Study setting	The study was conducted in six local authorities (Durham, Gateshead, Middlesbrough, Newcastle, Redcar and Stockton).
Study dates	November 2016 to October 2017.
Duration of follow-up	12 month follow up
Sources of funding	National Institute for Health Research (NIHR)
Inclusion criteria	Care situation Young people in care Age aged between 12 and 20 years. Substance use

	Screened positive for being at risk of substance misuse i.e. score greater than or equal to 1 on CRAFFT (Car, relax, alone, forget, friends, trouble) screening tool
Exclusion criteria	Intervention Already in active treatment with drug and alcohol services Mental health Unable to give informed consent (due to acute or severe mental health difficulties, mental capacity - this was assessed by the individual with parental responsibility). Care situation Unable to access drug and alcohol services e.g. due to currently residing out of the study area, an imminent move out of area or being in young offender's institution/prison/a secure unit. Language Unable to give informed consent (due to language barriers- this was assessed by the individual with parental responsibility).
Sample size	112
Split between study groups	Motivational Enhancement Therapy (MET) = 38 Social Behaviour and Network Therapy (SBNT) = 38 Usual Care = 36
Loss to follow-up	Motivational Enhancement Therapy (MET) = 21 Social Behaviour and Network Therapy (SBNT) = 15 Usual Care = 16

% Female	55%
Mean age (SD)	17.3 ± 2.0
Condition specific characteristics	non-white ethnicity 4% Type of care Foster Care = 30% Residential home = 18% Own accommodation = 44% With parents = 5% Other = 3%
Outcome measures	Health outcome 1 Self-rated health: a vertical visual analogue scale (VAS) is used for participants to self-rate their health. VAS scores range from 0- 'the worst health you can imagine' to 100- 'the best health you can imagine'. Mental health outcome 1 Strengths and Difficulties Questionnaire (SDQ). To measure self-reported mental health and wellbeing. 25 questions to assess four difficulty subscales and measure pro-social behaviour. Total difficulties scores range from 0–40, each one-point increase in this score corresponds with an increased risk of developing mental health disorders; close to average (0–14), slightly raised (15–17), high (18–19), very high (20–40). Wellbeing outcome 1

	Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS). To measure subjective well-being and psychological functioning. 14 item scale with each item scored 1 (none of the time) to 5 (all of the time) on a Likert scale. Total scores range from 0–70, higher scores denote positive mental health; very low score (0–32), below average (32–40), average score (40–59), above average score (59–70). Quality of Life 1 EQ-5D-5L. To assess health-related quality of life- five dimensions of health-related quality of life are assessed (mobility, self-care, usual activities, pain/discomfort and anxiety/depression). Each dimension has five potential responses ranging from 1 (no problems) to 5 (extreme problems). The digits for the five dimensions can be combined into a 5-digit number that describes the patient's health state E.g. 1,1,1,1,1- no problems in any domain or 5,5,5,5,5-extreme problems in all domains. Substance use outcome 1 Alcohol Use Disorder Identification Test (AUDIT): to identify signs of hazardous and harmful drinking and identify mild dependence. AUDIT is a 10-item scale. Scoring can range from 0–40, a score of 8+ is considered to indicate hazardous or harmful drinking. For the purpose of this study authors use adult cut off points as a formal scoring system does not exist for children. Substance use outcome 2 Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y). To identify moderate and high-risk scores broken down by age and substance. Questions relate to 9 different substances. 10 to 14 years of age - For tobacco, alcohol, inhalants–score 2 to 5 moderate risk, score of > 6 high risk. Scores >2 in any other substance indicates high risk. 15 to 17 years of age - Any injection of drugs is high risk. For tobacco and cannabis—score 2 to 11 moderate risk. For alcohol score 5 to 17 moderate risk. For cocaine, sedatives, opioids, NPS and 'other' drugs score 2 to 6 moderate risk. For amphetamines, inhalants and hallucinogens score 2 to 8 moderate risk. High risk scores tobacco and cannabis (>12), alcohol (>18), cocaine, sedatives, opioids, NPS and 'other' (>7) and amphetamines, inhalants and hallucinogens (> 9). Substance use outcome 3 Time Line Follow Back- Episodes of heavy drinking (>=5 units in 1 day) in the preceding 30-day period. The TLFB is a drinking assessment method that obtains estimates of daily drinking (e.g., pattern, variability, and magnitude of drinking). over a 30-day period. The TLFB in SOLID sought to identify heavy episodic drinking (high intensity 'binge' drinking is defined as the 'number of occasions where 5 or more standard drink units are consumed on a single drinking day'. This

	measure was chosen as an objective measure of likely intoxication or 'drunkenness' which in turn is associated with behavioural risk taking.

Study arms

Motivational Enhancement Therapy (MET) (N = 17)
The drug and alcohol practitioners were trained to deliver the MET or SBNT interventions using a treatment manual in a standardised way. Young people were offered SBNT or MET within 6 weeks of randomisation. MET is a directive, client-centred counselling approach. The basic assumption is that it is the therapist's role to create an environment to enable change but that the motivation and responsibility for change lie within the client. Both interventions comprised a maximum of six, 1- hour sessions offered weekly or fortnightly over a maximum of 12 weeks. Interventions were offered at a location convenient to the participant.

Condition specific characteristics	non-white ethnicity 0% Type of care Foster Care = 24% Residential home = 21% Own accommodation = 55% With parents = 0% Other = 0%

Social Behaviour and Network Therapy (SBNT) (N = 23)

The drug and alcohol practitioners were trained to deliver the MET or SBNT interventions using a treatment manual in a standardised way. Young people were offered SBNT or MET within 6 weeks of randomisation. SBNT utilises cognitive and behavioural strategies as part of a systematic counselling approach to help identify and build a positive social network to support behaviour change in relation to goal attainment regarding problem substance use. Both interventions comprised a maximum of six, 1- hour sessions offered weekly or fortnightly over a maximum of 12 weeks. Interventions were offered at a location convenient to the participant.

Condition specific characteristics	non-white ethnicity 89% Type of care Foster Care = 31% Residential home = 16% Own accommodation = 45% With parents = 3% Other = 5%

Control (usual care) (N = 20)
The usual care offer could be inclusive of multiple different approaches and was not standardised. Participants allocated to ‘usual care’, were still eligible to receive support for substance misuse; this required their allocated social worker to make a referral to drug and alcohol services using the standard care pathway.

Condition specific characteristics	non-white ethnicity 3% Type of care

	Foster Care = 36% Residential home = 17% Own accommodation = 31% With parents = 14% Other = 3%

Risk of Bias

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Low
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Some concerns *(The procedures put in place to assess intervention fidelity did not work/were not carried out by practitioners. There is potential for other aspects of the fidelity of the interventions to be compromised. Particularly it was unclear if practitioners were trained in both intervention types which may have lead to some cross-over of approaches.)*
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	High *(Proportions of missing data didn't vary hugely between groups, however it was very large and likely that adherence to follow up was related to risk of negative outcomes)*

Section	Question	Answer
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Low
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low
Overall bias and Directness	Risk of bias judgement	High
	Overall Directness	Directly applicable

Akin 2015

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Children in foster care with serious emotional disturbance
Study dates	Not reported (published 2015)
Duration of follow-up	Participants were tested pre and post intervention. Post-test was at 6-months.
Sources of funding	developed under the Kansas Intensive Permanency Project, which was funded by the Children's Bureau, Administration on Children, Youth and Families, Administration for Children and Families, U.S. Department of Health and Human Services
Inclusion criteria	Age aged between 3 and 16 years

	Care situation in foster care; participating families also: 1) had a case plan goal of reunification; 2) had caregivers who resided in the service area and had not been incarcerated for more than three months at the time of study enrollment; Emotional or mental health needs identified as having an SED within six months of entering foster care
Exclusion criteria	Caregiver characteristics an order of "no contact" from the court.
Sample size	121
Split between study groups	PMTO: 78 CAU: 43
Loss to follow-up	Not reported
% Female	56.2
Mean age (SD)	11.7 ± 4.2 years
Condition specific characteristics	Non-white 21.5%
Outcome measures	Social-emotional outcomes 1 Social-emotional functioning: he Child and Adolescent Functioning Assessment Scale (CAFAS) and the Preschool and Early Childhood Functional Scale (PECFAS); The CAFAS provides an overall functioning score and eight subscales (School, Home, Community, Behavior Toward Others, Moods/ Emotions, Thinking Problems, Self-Harm, and Substance Use). Social outcome 1 Social Skills: Social Skills Improvement System (SSIS): used to assess child problem behaviors and social skills by administering it to the primary caregiver seeking to reunify with the child (i.e., usually the birth parent). Data collection protocols required that the caregiver had had visits with the child within the last 60 days. The SSIS measures problem

	behaviors with a total score that is based on five subscales: externalizing, bullying, hyperactivity/inattention, internalizing, and Autism Spectrum. Higher problem behavior scores indicate more problem behaviors. The SSIS measures social skills with a total score that comprises seven subscales: communication, cooperation, assertion, responsibility, empathy, engagement, and self-control. Higher social skills scores indicate stronger social skills. Placement stability 1 Placement instability: erived from administrative data and was calculated as an annualized rate of placement settings: ðAnnualized Placement Rate = ((number of placement/days in foster care)*365)
Study arms	**Parent Management Training-Oregon (N = 78)** PMTO is a behavioral parent training program based on social interaction learning theory, which posits that parents are the agents of change for affecting improvements in their children's problematic behaviors. It was developed for children with externalizing behavior problems and is one of a family of parent training programs that were developed at the Oregon Social Learning Center (OSLC), specifically by its affiliate the Implementation Sciences International, Incorporated. PMTO was delivered in-home to individual families, focusing on parents as the agents of change, and delivered for up to six months. Core components include: 1) appropriate discipline; 2) skill building; 3) supervision and monitoring; 4) problem-solving; and 5) positive involvement.

% Female	51.3
Mean age (SD)	11.2 ± 4.22 years
Condition specific characteristics	Non-white 23.1%
Outcome measures	Social-emotional outcomes 1 Social-emotional functioning postintervention (CAFAS): 34.9 ± 38.4 Behavioural outcome 1 Problem behaviours postintervention: 20.2 ± 11.7 Social outcome 1 Social Skills postintervention (SSIS): 96.5 ± 19.6

	Placement stability 1 Placement instability rate postintervention: 0.9 ± 0.8

Care-as-usual (N = 43)
Participants received services as usual

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Children in foster care with serious emotional disturbance
Study dates	Not reported (published 2015)
Duration of follow-up	Participants were tested pre and post intervention. Post-test was at 6-months.
Sources of funding	developed under the Kansas Intensive Permanency Project, which was funded by the Children's Bureau, Administration on Children, Youth and Families, Administration for Children and Families, U.S. Department of Health and Human Services
Inclusion criteria	Age aged between 3 and 16 years Care situation in foster care; participating families also: 1) had a case plan goal of reunification; 2) had caregivers who resided in the service area and had not been incarcerated for more than three months at the time of study enrollment; Emotional or mental health needs

	identified as having an SED within six months of entering foster care
Sample size	121
Split between study groups	PMTO: 78 CAU: 43
Loss to follow-up	Not reported
% Female	56.2
Mean age (SD)	11.7 ± 4.2 years
Outcome measures	Social-emotional outcomes 1 Social-emotional functioning postintervention (CAFAS): 64.1 ± 53.3 Behavioural outcome 1 Problem behaviours score postintervention (SSIS): 29.6 ± 16.6 Social outcome 1 Social Skills score postintervention (SSIS): 81.4 ± 21.5 Placement stability 1 Placement instability rate postintervention: 1.2 ± 0.8

Risk of Bias	**Domain 1: Bias arising from the randomisation process** **High** (Subjects were aware of their assignment group prior to agreeing to study participation. Few baseline characteristics reported. Some differences but unclear if significant. 1:1 Randomisation resulted in considerably more in the intervention group.)

	Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention) **High** (Unclear if there were deviations from assigned intervention, this is likely since more participants were assigned to the intervention group than control group despite 1:1 randomisation (in order to fill PMTO case load)) **Domain 3. Bias due to missing outcome data** **High** (Though missing data did occur, this study is not clear how much data was missing and proportion between groups) **Domain 4. Bias in measurement of the outcome** **Some concerns** (Low risk for placement stability that was determined using administration data) **Domain 5. Bias in selection of the reported result** **Some concerns** (Information on conduct of trial was insufficient and there was no protocol cited.) **Overall bias and Directness** **High** **Overall Directness** **Partially applicable** (USA based)

Akin 2018/2019

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Families of children in foster care with serious emotional disturbance
Study dates	September 2012 to 2014
Duration of follow-up	6 months and 12 months
Sources of funding	Children's Bureau, Administration on Children, Youth and Families, Administration for Children and Families, U.S. Department of Health and Human Services
Inclusion criteria	Age between ages 3 to 16 Care situation entering or reentering foster care; the child's case plan goal must be reunification mental health or emotional needs identified as having emotional and/or behavioral problems within 6 months of removal [ECFAS total score of 50 or higher, or a score of 20 on one subscale, (2) for children 6–16 years old, a CAFAS score of 60 or higher, or a score of 30 on one subscale, or (3) had been identified by a Community Mental Health Center as having a SED, (4) had an Individual Education Plan for an emotional or behavioral disorder, (5) had a diagnosed mental disorder and symptoms of that disorder were contributing to a lack of stability in out-of-home care placements, (6) had a diagnosed mental disorder, a history of outpatient or inpatient mental health treatment, and was currently prescribed psychotropic medications, or (7) had been admitted for inpatient psychiatric care within the last year.] Caregivers Each case consisted of the identified child and an identified parent which included biological parents, stepparents, adoptive parents, or other adults serving in a caregiving role. The identified parent represented the caregiver with whom the child was to reunify at the time of study enrollment. Parent parent must reside in the service area, (3) parent may not be incarcerated for longer than 3 months, and (4) parent cannot have a court order of ''no contact'' with the child.

Sample size	1652 randomised
Split between study groups	PMTO = 855 Comparison = 797
Loss to follow-up	Not approached PMTO = 394 Compariosn = 340 Intention to treat analysis used Missing data by 6 months PMTO = 113 for CAFAS outcomes, 194 for SSIS outcomes Comparison = 173 for CAFAS outcomes, 260 for SSIS outcomes
% Female	46.5%
Mean age (SD)	11.8 ± 4.2 years
Condition specific characteristics	Non-white ethnicity 22.8% Learning disability or special educational need diagnosed disability: 53.8% Exploitation or maltreatment Removal reason for: physical abuse: 18.4%; sexual abuse: 6.2%; neglect: 37.0%

	Number of care placements prior removals: 21.5% time in care 50.2 ± 81.0 months
Outcome measures	Social-emotional outcome Social-emotional functioning was measured using the Child and Adolescent Functioning Assessment Scale (CAFAS) (ages 6–16) and the Preschool and Early Childhood Functional Scale (PECFAS) (ages 3–5), a caseworker-administered assessment. The CAFAS provides an overall functioning score and eight subscales (School, Home, Community, Behavior Toward Others, Moods/Emotions, Thinking Problems, Self-Harm, and Substance Use). The PECFAS has seven subscales, omitting the substance use subscale. Scores were assigned via behaviorally oriented descriptions in increments of 10 where 0=minimal functional impairment, 10=mild functional impairment, 20=moderate functional impairment, and 30=severe functional impairment. Total scores represented sums of subscales and an overall level of functioning. Behavioural outcome 1 Child behaviour: The Social Skills Improvement System-Rating Scales (SSIS) were used to assess child problem behaviors and social skills by administering parent versions, which were developed for ages 3 to 18 years. Data collection protocols required that the caregiver had had at least one visit with the child within the last 60 days. The SSIS provides two scores. First, it measures problem behaviors with a total score based on five subscales (33 items): externalizing, bullying, hyperactivity/inattention, internalizing, and Autism Spectrum. Second, the SSIS measures social skills (described below). Parents were asked to report how often the child displayed the behavior on a 4-point scale (N=never, S=seldom, O=often, A=almost always). Higher problem behavior scores indicate more problem behaviors. Social outcome 1 Prosocial skills: the SSIS also measured children's social skills. The scale provided a total score that comprises seven subscales (46 items): communication, cooperation, assertion, responsibility, empathy, engagement, and self-control. Like problem behaviors, parents were asked to report how often the child displayed the social skills on a 4-point scale (N=never, S=seldom, O=often, A=almost always). Higher social skills scores indicate stronger social skills. Relationship outcome Effective parenting: Effective parenting was measured with the Family Interaction Task (FIT), which is an observation-based assessment that video-records the parent and index child working together on several tasks for approximately 30 min. The tasks are grouped into three developmentally-appropriate sets for preschool age children, school-age children, and adolescents. Videos were uploaded to a secure portal where they were observed and rated by coders. The coders were blind to the data collection wave and study condition, and were monitored by the study's principal investigator with regards to maintaining interrater reliability throughout the study. Reliability was checked on 15% of the sample and the percent agreement ranged from 66% to 98% with an average percent agreement of 89%. Coders rated behavioral items on their frequency according to these guidelines: never (0% of time), hardly ever (1–10% of time), sometimes (11–50% of time), often (51–75% of time), very often (76–90% of time), and always (91–100% of time). Some tasks sought specific practices or behaviors and these were rated as: untrue (1), slightly true (2), fairly true (3), mostly true (4), and very true (5) (e.g., a problem solving task asked if several solutions were suggested and a plan was developed). While tasks and items within the age groupings of the FIT were specific to the child's developmental stage, all were rated and scored on five subscales (50 items) that correspond to the core parenting practices of PMTO: skill encouragement, positive involvement, problem-solving, communication/monitoring, and ineffective discipline. Subscales were reverse coded as needed (ineffective discipline) and averaged to provide an overall measure of effective parenting. Permanency outcomes Parenting readiness for reunification: Four subscales (16 items) of the North Carolina Family Assessment Scale (NCFAS) were completed by case managers to represent caregiver functioning: parent mental health, parent substance use, parent use of social supports, and readiness for reunification. Scores were recorded with a six-point scale that ranged from “clear strength” (+2) to “serious problem” (−3) with anchoring definitions provided for three of the points (clear strength (+2), baseline/adequate (0), and serious problem (−3)).

Study Arms	**Parent Management Training Oregon (N = 461)** PMTO model was delivered by the state's private contractors for foster care services across the state. The frontline staff were master's-level practitioners, most of whom were licensed social workers, about one quarter were licensed marriage and family therapists, and the other quarter were licensed counselors. The staffing model comprised one full-time supervisor per five full-time practitioners plus one half-time administrative support position. The PMTO training regimen required practitioners to participate in 8 days of preservice training followed by 10 additional days of training over approximately 8 months. Practitioners also participated in 2 full days of in-person coaching. In addition to the initial coaching days, they received observation-based coaching twice per month in one of three formats: written feedback, live feedback via videoconference, and/or live feedback via group. Fidelity to the PMTO model was monitored by trainers and coaches via videos of the practitioners' work with families. All PMTO sessions were video recorded, uploaded to a secure portal, and could be selected for review by coaches and/or fidelity raters. Additionally, following the program developer's guidelines, select sessions were identified for fidelity rating by a reliable PMTO fidelity team. Practitioners were rated at least quarterly until they became certified in PMTO. Certification took an average of 22 months to accomplish. Once certified, practitioners were rated for fidelity annually. The PMTO was delivered in-home to individual families, focusing on parents as the agents of change, and delivered for up 6 months. The program did not require a specific number of sessions or weeks; rather, practitioners worked with families until they completed the PMTO curriculum. Families who were retained for 6 months but did not complete the curriculum were discharged from the program at 6 months. Typically, practitioners met with families twice per week for approximately 60–90 min per session plus a midweek check-in that lasted for 20–30 min. These weekly sessions followed a three-step process. First, practitioners met with parents without children present. Second, parents were expected to practice new skills, and practitioners followed up with the parent by phone or in-person to discuss the weekly ''homework.'' Third, practitioners conducted a family session with the parents and children together, during which the parents tried newly learned skills with the practitioner present and acting as a live coach. The PMTO curriculum centered on teaching parents five core parenting practices: (1) positive involvement, (2) skill building, (3) supervision and monitoring, (4) problem solving, and (5) appropriate discipline. Practitioners were guided by a predefined and semi structured session outline. The PMTO manual provided optional handouts, home practice assignments, and ideas for parent and family activities that corresponded to each session topic. Practitioners moved through the curriculum in a specific order, starting with easier content, adjusting the pace to fit the families' needs, and

	using an iterative process to reinforce concepts throughout the treatment process. For example, an early session focused on teaching parents to give clear directions as this is a foundational parenting practice for skill building and effective discipline. With regard to the process, PMTO was designed to be an engaging, hands-on, active teach model that relied heavily on coaching through a strengths orientation. The two main teaching strategies were role playing and problem-solving. Practitioners used portable whiteboards or easel charts as a tool for active teaching that provided a visual cue to parents and children. The PMTO training emphasized trauma content, a focus on emotion regulation, and mindfulness techniques. Besides these modifications made for the training, PMTO did not undergo any other adaptations during the course of the study. To promote better engagement of parents, PMTO was delivered early in the child's episode of foster care (i.e., initiated within first 6 months). To address parent transportation problems and access in rural communities, PMTO was delivered in-home. To ensure adequate parent-focused services, PMTO was delivered to birth parents with appropriate intensity (i.e., about two sessions per week). To promote connection and avoid emotional distancing between children and parents, PMTO emphasized regular parent/child visits (i.e., at least one per week in addition to the PMTO family session). Finally, to address system-level issues related to high caseloads and high worker turnover, PMTO was structured for small caseloads (four families per practitioner in rural areas and six families per practitioner in urban areas) and practitioners were provided with regular clinical and group supervision.

% Female	44.3%
Mean age (SD)	11.6 ± 4.1 years
Condition specific characteristics	Non-white ethnicity 23.1% Learning disability or special educational need diagnosed disability: 52.9% Exploitation or maltreatment Removal reason for: physical abuse: 18.9%; sexual abuse: 5.9%; neglect: 36.9% Number of care placements

	prior removals: 23.2% time in care 54.4 ± 10.2 months
Outcome measures	Social-emotional outcome Social-emotional functioning (CAFAS) at 6 months/12 months: 81.40 ± 76.10/83.41 ± 73.56 Behavioural outcome 1 Problem behaviour (SSIS) score at 6 months/12 months: 28.80 ± 15.20/27.56 ± 12.82 Social outcome 1 Prosocial skills (SSIS) at 6 months/12 months: 84.50 ± 22.60/85.54 ± 22.63 Relationship outcome Effective parenting score at 6 months/12 months: 2.90 ± 0.76/2.92 ± 0.90 Permanency outcomes Readiness for reunification score at 6-months/12-months follow up: -0.30 ± 1.71/-0.48 ± 1.87

Care as usual (N = 457)
Services as usual

% Female	48.8%
Mean age (SD)	11.9 ± 4.3 years
Condition specific characteristics	Non-white ethnicity 21.4% Learning disability or special educational need diagnosed disability: 54.7% Exploitation or maltreatment

		Removal reason for: physical abuse: 17.9%; sexual abuse: 6.6%; neglect: 37.2% Number of care placements prior removals: 19.7% time in care 45.6 ± 50.8 months
	Outcome measures	Social-emotional outcome Social-emotional functioning (CAFAS) at 6 months/12 months: 107.40 ± 82.60/102.42 ± 81.44 Behavioural outcome 1 Problem behaviour (SSIS) score at 6 months/12 months: 30.80 ± 13.90/31.04 ± 13.40 Social outcome 1 Prosocial skills (SSIS) at 6 months/12 months: 80.70 ± 21.60/80.29 ± 22.81 Relationship outcome Effective parenting score at 6 months/12 months: 2.90 ± 0.76/2.92 ± 0.90 Permanency outcomes Readiness for reunification score at 6 months/12 months: -0.81 ± 1.88/-0.46 ± 1.84
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Low **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low **Domain 3. Bias due to missing outcome data** High **Domain 4. Bias in measurement of the outcome**	

	Some concerns **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** **Risk of bias judgement** High (The control group had case managers. However, the study did not say whether the intervention group had case managers or not. 50% of the data was missing at time 2 because of attrition. No blinding and some of the outcomes are subjective..) **Overall Directness** Partially applicable (USA study)

Bergstrom 2016

Study type	Randomised controlled trial (RCT)
Study location	Sweden
Study setting	Juveniles entering into out of home care
Study dates	Not reported
Duration of follow-up	3 year follow up

Sources of funding	Not reported
Inclusion criteria	Age between 12 and 17 years old Care situation at risk for immediate out-of-home placement (all but one participants were in out of home care during the course of the study Behavioural needs eet the diagnostic criteria for a conduct disorder according to DSM-IV-TR (Diagnostic and Statistical Manual of Mental Disorders, American Psychiatric Association)
Sample size	46
Split between study groups	MTFC: 19 CAU: 27
Loss to follow-up	None reported
% Female	Not reported
Mean age (SD)	Not reported
Condition specific characteristics	Behaviour that challenges 100%
Outcome measures	Placement stability 1 Number of out-of-home placements: indicates whether the juvenile has been in an out-of-home placement (e.g., foster home or residential care). Excerpted data from social case record. Criminal outcomes Locked settings: describes whether the juvenile was in an out-of-home care setting and in a locked ward. Excerpted data from social case record.

	Homelessness Homeless: describes whether the juvenile had a notation of not having a place to live or did not currently have a registered place to live. Excerpted data from social case record. Negative placement change Negative treatment exit describes whether the juvenile experienced a breakdown or had exited a minor treatment facility to enter a more secure one (e.g., the juvenile exited foster care and entered institutional care). Excerpted data from social case record. Criminal outcomes 2 Criminality is described using only confirmed reports from the police or convictions reported in the case record. Violent crime describes whether the crime involved a crime towards a person (e.g., assault, rape or robbery) from confirmed police reports or convictions. Excerpted data from social case record. Health outcome 1 Substance Abuse is described using a combination of records, such as urine samples, to test for drugs, treatment (e.g., out-of-home placement in group care directed towards drug problems) or conviction (use or dealing). Excerpted data from social case record.
Study arms	**Multidimensional Treatment Foster Care (N = 19)** MTFC is designed to decrease deviant behaviour and to increase pro-social behaviour (e.g., co-operativeness, acting within boundaries of the law, attending school, engaging in socially acceptable communication). A juvenile is placed with a professionally trained foster family, and a clinical team is formed around the juvenile and his or her birth family. The clinical team consists of a case manager (who supervises and coordinates the treatment), a family therapist (who conducts weekly therapy sessions with the juvenile and her or his family), an individual therapist (who supports the juvenile to achieve daily progress), a skills trainer (who practises new skills in the juvenile's daily activities and everyday life), a parent daily report (PDR) caller (who telephones the foster family every day to monitor progress) and the foster family (which provides the juvenile with a structured, therapeutic living environment). Members of the foster family help the juvenile to develop pro-social skills by being role models and providing clear sets of rules with predictable privileges and consequences for specified target behaviours. They also make sure the juvenile has a high level of structure for daily activities and tasks, and they closely monitor their adolescent. The programme provides juveniles with tight supervision but also focuses on helping youths develop positive relationships with the adults around them. Efforts are made by the MTFC team to strengthen the juvenile's relations to peers or friends not associated with antisocial behaviour, for example, to re-establish contacts with friends from the youth's social past. The individual therapist has sessions with the juvenile to discuss what constitutes a good friend and a positive relationship. The skills trainer can role-play with the juvenile to prepare the latter to re-establish contact with former friends. Interventions for the birth family through family therapy and

	carefully planned home visits are essential parts of the programme. The home visits start after about three weeks and increase in frequency and length in an ongoing manner. Interventions to reduce the juvenile's contact with antisocial peers are also an important focus, as is developing a functional school situation (e.g., greater participation, less truancy and improved pupil skills). Efforts within the MTFC team are meant to ensure school attendance. For example, the case manager has worked out a plan of action with the head teacher that is applied if minor or major problems occur. The school personnel are instructed to inform the case manager of any problems. If a major problem arises (e.g., the juvenile is involved in physical fighting), the day after the incident, at the latest, the case manager personally visits the school to provide support. Daily school activities with troublesome juveniles are often challenging. Much effort is expended to assure the school personnel that all their efforts with the juvenile in MTFC are taken seriously. The MTFC programme has five parts, one for each treatment role, outlined in a manual description (Chamberlain, 1998). Several aspects must be individually adjusted,according to the manual—for instance, which specific need (individual, family or skills) should first be addressed and the length of the initial home visits. Adherence to the manual was considered important throughout the programme processes. For example, the foster parents had to complete the PDR checklist and report every day on the juvenile's performance on the point and level systems. Further, the team discussions and foster parents' supervision sessions were videotaped and sent to the Oregon Social Learning Center for analysis of adherence.

Outcome measures	Placement stability 1 Number of out-of-home placements over 1 year/3 years follow up: 1.4 ± 0.5/3.1 ± 2.2 Criminal outcomes Juveniles with experience of a locked setting over 1 year/3 years follow up: 1 (5%)/5 (26%) Homelessness Homeless over 1 year/3 years follow up: 0 (0%)/ 0 (0%) Negative placement change Negative treatment exit over 1 year/3 years: 2 (11%)/8 (42%) Criminal outcomes 2 Criminal activity over 1 years/3 years: 1 (5%)/3 (15%); Violent crime over 1 years/3 years: 0 (0%)/ 0 (0%) Health outcome 1

	Substance Abuse over 1 year/3 years follow up: 4 (21%)/5 (26%)

Care as Usual (N = 27)
The juveniles in the TAU group received several different treatment alternatives. Most of them (n = 21, 78%) received more than one intervention during the first year after assessment. Out-of-home care was the most-used option (n = 26); this alternative could include residential care, private group care and foster care. Fifteen juveniles received in-home care, an alternative that could involve family therapy, individual counselling, mentorship with non-professional volunteers and drug testing. Only one juvenile was sent home, stayed home the whole first year and later received in-home care. Another two juveniles were sent home first but received out-of-home care during parts of the first year. The TAU alternative seldom included manual-based treatment, behaviour modification or evidence-based programmes. Some of the juveniles in out-of-home care may have received some form of manual-based treatment, at least in the residential care; at most, 12 juveniles experienced this. only one recording was found for one adolescent who received a manual-based treatment during the first year at in-home care.

Outcome measures	Placement stability 1 Number of out-of-home placements over 1 year/3 year follow up: 1.5 ± 1.0/3.4 ± 2.4 Criminal outcomes Experience of a locked settings over 1 year/3 years follow up: 12 (44%)/12 (44%) Homelessness Homeless over 1 year/3 years follow up: 0 (0%)/ 2 (7%) Negative placement change Negative treatment exit over 1 year/3 years follow up: 9 (33%)/13 (48%) Criminal outcomes 2 Criminal activity over 1 year/3 year follow up: 6 (22%)/11 (41%); Violent crime over 1 year/3 year follow up: 7 (26%)/11 (41%) Health outcome 1 Substance Abuse over 1 year/3 year follow up: 10 (27%)/12 (44%)

Risk of Bias	**Domain 1: Bias arising from the randomisation process** **High** (unclear if allocation concealment. the MTFC group had significantly more families with an immigrant background. Few baseline characteristics reported other than those on which randomisation was performed.) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** **High** (No information provided about whether there were deviations from treatment, or whether intent-to-treat analysis was used) **Domain 3. Bias due to missing outcome data** **High** (Unclear if missing outcome data, approach to missing outcome data and whether missing data varied between comparison groups) **Domain 4. Bias in measurement of the outcome** **Low** **Domain 5. Bias in selection of the reported result** **Some concerns** (Unclear information about the conduct of trial and no protocol cited) **Overall bias and Directness** **High** **Overall Directness** **Partially applicable**

	(Participants were juveniles at risk for immediate out-of-home placement (awaiting placement in out of home care). However, all but one participants (treatment/control group) were in out of home care during the course of the study.)

Briskman 2012

Study type	Randomised controlled trial (RCT)
Study location	UK
Study setting	Foster parents (not kinship carers)
Study dates	April 2010 to July 2011.
Duration of follow-up	postintervention
Sources of funding	a grant from the Department for Education to The National Academy for Parenting Research
Inclusion criteria	Age between 2 and 12 Care situation child was likely to remain in the placement for the duration of the course (3 months); The child could be under Special Guardianship*, but kinship carers** were not eligible for inclusion in the trial. Caregivers The carers could male or female, and of any age (although the minimum age of a Registered Carer is 21). Because of the practical nature of the course and because of the methods of evaluation, carers had to have at least one child (male or female) currently in placement
Exclusion criteria	Care situation kinship carers
Sample size	77 carers, 108 foster children

Split between study groups	Intervention = 42 carers, 61 foster children control group = 35 carers, 46 foster children
Loss to follow-up	Intervention = 8 carers, 10 foster children control group = 6 carers, 8 foster children
% Female	42.7%
Mean age (SD)	7.90 ± 3.12 years
Condition specific characteristics	Non-white ethnicity 33.4% Number of care placements number of previous care placements: 1.22 ± 1.67 time in care 25.75 ± 24.99 months
Outcome measures	Behavioural outcome 1 Child Behaviour Problems: The Carer-Defined Problems Scale measured at three months post-randomisation. The Carer-defined Problems Scale (Scott et al, 2001) asks carers to list their foster child's three main problems, and then to indicate how severe the problems by placing a mark on a 10 cm line. Data from this measure has been shown to be a very useful indicator of pre-and post-intervention change. Relationship outcome Foster Child's attachment relationship with foster carer: The Quality of Attachment Relationships Questionnaire (QUARQ) measured three months postrandomisation (Time2). The Quality of Attachment Relationship Questionnaire (QUARQ) is an assessment of the attachment relationship between carer and foster child. Derived from key concepts that define our understanding of attachment theory, it includes items which tap into the child's ability to show or accept affection, to trust the carer, and whether the child seeks help from their carer under stressful conditions. It also asks about the carer's understanding of the child's feelings. This measure was devised by our in-house research team. relationship outcome 2 Foster parent's parenting style, relationship with child and coping strategies: The Alabama Parenting Questionnaire Short Form (Scott et al 2011), measured at Time 2. The Alabama Parenting Questionnaire Short Form (APQ-SF) (Scott et al, 2011) is a measure of empirically identified aspects of positive and negative parenting styles which relate to conduct problems in children. The questions are divided into four domains of parenting practice: Positive parenting (e.g. praising your child for good behaviour); Inconsistent Discipline (e.g.

	saying that you will punish bad behaviour and then not doing it); Poor Supervision (e.g. not knowing who your child is out with); and Involvement (e.g. helping your child with their homework). Strengths outcome 1 Foster child's social, emotional and behavioural adjustment: Strengths and Difficulties Questionnaire (SDQ) (Goodman 2001) measured at Time 2. The Strengths and Difficulties Questionnaire (SDQ) (Goodman 2001) is a measure of adjustment and psychopathology of children and adolescents. It consists of 25 traits, comprising five sub-scales: Emotional Symptoms, Conduct Problems, Hyperactivity-Inattention, Peer Problems, and Pro-social Behaviour. It has been widely used as a research screening tool and its validity has been confirmed in analyses of many different populations.
Study Arms	**Fostering Changes Programme (N = 51)** The Fostering Changes programme was delivered by two facilitators over a period of twelve weeks, once a week for three hours, between 11.00 a.m. and 2.00 p.m., which fits in with taking children to and from school. The course does not run during the school half-term week. Carers with pre-school or nursery age children have to be able to make arrangements for regular child care in order to attend the course. In practice this was rarely a problem during the trial, as Local Authorities are keen for their carers to attend training and alternative care is usually provided by a respite carer if a co-carer is not available. A light lunch is provided at the course venue. Carers are asked whether they are able to commit to attending all twelve sessions, as it is important that they cover all the material presented during the course. However, it is inevitable that some foster carers will be unable to attend every session due to unforeseen circumstances (e.g. illness, or appointments that they have to attend on behalf of the child). Each session starts with a review of the theoretical material underlying the topic to be covered, for example, information about psychological and physiological influences on behaviour. Understanding the antecedents of behaviour helps carers to know why specific patterns of behaviour arise in certain contexts, and helps them to recognise and avoid the psychological or environmental triggers. This material is introduced in a way that is accessible to carers with a wide range of learning styles and includes slides as well as handouts. New skills are taught at each session and carers are asked to use these strategies at home with their foster child. Each session begins with feedback from carers about using their newly acquired skills before the group goes on to cover additional material. At the end of each session carers are given the opportunity to feed back on their experience of the group, including any concerns they might have. Course contents: session one: establishing the group; how children thrive and develop resilience; experiences of looked after children; developmental stages; tracking & observing behaviour. Session 2: context of behaviour; attachment – child and carer; social learning theory; ABC analysis of behaviour. Session 3: The relationship between need and maladaptive behaviour; Praise; Positive strategies; Obstacles to praise and using praise effectively. Session 4: Using praise to support learning; Developing a positive environment; Play; Attending; Descriptive commenting. Session 5: The Importance of

	Focusing on Children's Ability to Understand and Manage Emotions; Effective Communication; Sensitivity to The Expression of Feelings; Expressing feelings; Using questions; Being non-judgemental; When listening is difficult. Session 6: The Educational context of looked after children; Special educational needs; Importance of carers supporting their child in reading; Carers role in supporting learning more generally; different styles of learning; Managing Carers' Thoughts and Feelings (CBT); Session 7: Assertive Communication and "I" messages; Reinforcing Positive Behaviour Through Rewards; Using consequences; "extinction". Session eight: Giving Effective Instructions; Differential use of attention: selective ignoring. Session 9: Positive Discipline; Setting Limits Through Family Rules; Natural & Logical Consequences. Session 10: Punishment; 'Time Out' From Positive and Negative Reinforcement; When The Child Does Not Co-operate With Time Out; Problem-Solving Strategies; The Stop, Plan and Go Approach to Problem-Solving; Managing Carers; and Children's Feelings in Problem-Solving. Session eleven: Endings & Review; Carers' role in Helping Children to Understand Their Life Story; Looked After Children and Endings; Transition to Secondary School. Session 12: Taking Care of Yourself; Self-Esteem; What I Appreciate About You; Certificate Giving, Celebration and Goodbyes.
	Outcome measures: **Behavioural outcome 1** Child Behaviour Problems mean score (Carer-Defined Problems Scale) measured at three months: 41.5 ± 23.8, change from baseline 29.2 (p=0.003) **Relationship outcome** Foster Child's attachment relationship with foster carer mean score (The Quality of Attachment Relationships Questionnaire) measured three months postrandomisation (Time2). mean = 54 (taken from graph). There was an improvement in total attachment score in the intervention group when compared with controls (mean difference 3, taken from figure) and the difference between change in group mean scores was significant (p=0.04). **relationship outcome 2** Foster parent's parenting style, relationship with child and coping strategies mean score (The Alabama Parenting Questionnaire Short Form) mean score postintervention: 41.0 ± 3.8, difference from baseline: 1.01 (p=0.242) [target children, n=55, included in this analysis only) **Strengths outcome 1** Foster child's social, emotional and behavioural adjustment (Strengths and Difficulties Questionnaire (SDQ)) measured at 3 months postbaseline: total problems score: 16.8 ± 6.8 (change in score compared to control group: p=0.027); emotional symptoms: 3.5 ± 2.3; conduct problems: 3.5 ± 2.7 (change in score compared to control group: p=0.025); hyperactivity: 6.2 ± 2.8; peer relationships: 3.5 ± 2.4; pro-social: 6.1 ± 2.0; impact: 3.0 ± 3.1
	Waitlist control group (N = 38)

	The control group were placed on a waiting list to receive the same training at a later date, after post-trial data had been collected. Trial research staff made no further contact with participants in the control arm of the trial until three months after the initial interview, and no alternative treatment was offered during this period. **Outcome measures** Behavioural outcome 1 Child Behaviour Problems mean score (Carer-Defined Problems Scale) measured at three months: 56.5 ± 26.8, change from baseline 8.7 Relationship outcome Foster Child's attachment relationship with foster carer mean score (The Quality of Attachment Relationships Questionnaire) measured three months postrandomisation (Time2). mean = 50 (taken from graph). There was an improvement in total attachment score in the intervention group when compared with controls (mean difference -1, taken from figure) and the difference between change in group mean scores was significant (p=0.04). relationship outcome 2 Foster parent's parenting style, relationship with child and coping strategies mean score (The Alabama Parenting Questionnaire Short Form) mean score postintervention: 41.9 ± 3.5, difference from baseline: -0.2 (p=0.242) [target children, n=55, included in this analysis only] Strengths outcome 1 Foster child's social, emotional and behavioural adjustment (Strengths and Difficulties Questionnaire (SDQ)) measured at 3 months postbaseline: total problems score: 16.2 ± 6.7; emotional symptoms: 3.4 ± 2.2; conduct problems: 4.0 ± 2.6; hyperactivity: 5.7 ± 2.6; peer relationships: 3.0 ± 2.1; pro-social: 6.3 ± 2.6; impact: 2.7 ± 2.7
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Low **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low **Domain 3. Bias due to missing outcome data** Low **Domain 4. Bias in measurement of the outcome** Some concerns

	Domain 5. Bias in selection of the reported result Low **Overall bias and Directness** Some concerns (No blinding and some of the outcomes are subjective) **Overall Directness** Directly applicable

Bywater 2011

Study type	Randomised controlled trial (RCT)
Study location	UK/Wales
Study setting	Foster care
Study dates	Not reported
Duration of follow-up	6 months
Sources of funding	Welsh Office of Research and Development for Health and Social Care
Inclusion criteria	Care situation in foster care; child was likely to remain with the carer for at least the following 6 months.

Sample size	46 foster carers (and child)
Split between study groups	Incredible Years = 29 Wait list = 17
Loss to follow-up	none reported
% Female	47.8%
Mean age (SD)	10.47 years SD 4.48
Outcome measures	Behavioural outcome 1 Child behavioural and emotional problems [Eyberg Child Behavior Inventory (ECBI)]: The ECBI was the primary outcome measure. This has two subscales to assess the number and intensity of conduct problems; scoring above the 127 and 11 cut-offs are cause for concern on each respective subscale. Strengths outcome 1 Strengths and Difficulties score (The Strengths and Difficulties Questionnaire (SDQ)): The Strengths and Difficulties Questionnaire (SDQ) (Goodman 2001) is a measure of adjustment and psychopathology of children and adolescents. It consists of 25 traits, comprising five sub-scales: Emotional Symptoms, Conduct Problems, Hyperactivity-Inattention, Peer Problems, and Pro-social Behaviour.
Study arms	**Incredible Years (N = 29)** The IY basic parenting programme (Webster-Stratton 1989) consists of 12 weekly 2-h sessions, involving facilitator-led group discussion, videotape modelling and rehearsal of intervention strategies. The programme is delivered in a group format with up to 12 'parents' and two facilitators. The programme focuses on strengthening 'parenting' skills, with the intention of preventing, reducing and/or treating conduct problems among children aged 2–8 years while increasing their social competence. The sessions emphasize the importance of play, ways to help children learn, effective praise, use of incentives, limit setting and non-aversive ways to deal effectively with misbehaviour. % Female: 48.3%

Mean age (SD)	8.86 SD 3.43
Condition specific characteristics	time in care Length of time looked after child has resided with current carer (months): 21.88 (SD 24.87)
Outcome measures	Behavioural outcome 1 Child behavioural and emotional problems at 6 months, mean [Eyberg Child Behavior Inventory (ECBI)]: 112.89 SD 41.54 Strengths outcome 1 Strengths and Difficulties score at 6 months (The Strengths and Difficulties Questionnaire (SDQ)): Total - 16.41 SD 8.56; hyperactive - 5.65 SD 2.74

Wait list control (N = 17)

Control carers were offered the programme after follow-up.

Study type	Randomised controlled trial (RCT)
Study location	UK/Wales
Study setting	Foster care
Study dates	Not reported
Duration of follow-up	6 months
Sources of funding	Welsh Office of Research and Development for Health and Social Care
Inclusion criteria	Care situation in foster care; child was likely to remain with the carer for at least the following 6 months.

	Sample size	46 foster carers (and child)
	Split between study groups	Incredible Years = 29 Wait list = 17
	Loss to follow-up	none reported
	% Female	47.1%
	Mean age (SD)	10.47 SD 4.48
	Condition specific characteristics	time in care Length of time looked after child has resided with current carer (months): 25.40 SD 17.56
	Outcome measures	Behavioural outcome 1 Child behavioural and emotional problems score at 6 months, mean [Eyberg Child Behavior Inventory (ECBI)]: 102.81 SD 29.53 Strengths outcome 1 Strengths and Difficulties score at 6 months follow up (The Strengths and Difficulties Questionnaire (SDQ)): total - 14.8 SD 6.54; hyperactive - 6.25 SD 2.72
Risk of Bias	**Domain 1: Bias arising from the randomisation process** High (Randomisation was broken as foster carers were randomly allocated to either condition using a random number generator unless they had commitments ruling out possible attendance at a specific group (n = 6). Some differences observed between groups for length of time foster parent had been fostering.) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)**	

	Some concerns (6 participants chose their group based on convenience which may have been influenced by a wish to get into the active group. Unclear if intention to treat, however loss to follow up was low. No blinding apparent and outcomes are self-report) **Domain 3. Bias due to missing outcome data** Low **Domain 4. Bias in measurement of the outcome** Some concerns (No indication that outcome assessors were blinded to intervention group and could have influenced the results. However, validated questionnaires were used so this is unlikely) **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** High **Overall Directness** Directly applicable

Cox 2017

Study type	Cluster randomised controlled trial
Study location	Australia

Study setting	Residential out of home care
Study dates	August 2012 to December 2014
Duration of follow-up	12 months
Sources of funding	Australian Research Council Linkage Scheme
Inclusion criteria	Care situation in one of the randomised residential care centres
Sample size	177 carers and 70 young people
Split between study groups	Intervention group = 157 carers and 91 young people randomised Wait list control = 116 carers and 32 young people randomised
Loss to follow-up	by 6 months Intervention group = 92 carers and 42 young people remaining Wait list control = 63 carers and 15 young people remaining by 12 months Intervention group = 66 carers and 30 young people remaining Wait list control = 41 carers and 10 young people remaining

% Female	not reported for the total sample
Mean age (SD)	not reported for total sample
Outcome measures	Health outcome 1 Diet: Children's Eating and Physical Activity Questionnaire (EPAQ). The EPAQ was designed to assess the number of serves on the previous day of fruit, vegetables, energy-dense foods (packaged snacks, confectionary/chocolate, cakes and sweet biscuits) and water, plain milk and SSB (fruit juice, cordial, soft drink, flavoured milk). Response options ranged from zero to six-plus for beverages, and from 0.5 to five-plus for foods. Total scores for 'sugary drinks' were calculated by adding reported serves of fruit juice, cordial, soft drink and flavoured milk; 'healthy foods' were calculated by summing reported servings of fruit and vegetables; and 'unhealthy foods' were the sum of packaged snacks, confectionary and/or chocolate and cakes/sweet biscuits. Scores were reported as mean servings. Health outcome 2 Screen time: Information on screen time (i.e. TV, videos/DVD, computer, video games) was collected using the Eating and Physical Activity Questionnaire, which asks about screen time (hours/minutes) on the previous day across three time points: morning, afternoon and evening (after 6 pm). Responses across each item were summed to calculate a daily average. Health outcome 3 Physical activity: Adolescent Physical Activity Measure (Prochaska et al., 2001) was used to measure physical activity levels. Two single-item measures assessed physical activity over the past seven days, and over a 'typical' or 'usual' week. Given that scores for typical week and past seven-day reference periods were highly correlated, only item one was included in the current analyses.. Health outcome 4 Body Mass Index: HEAL data collection workers, who were blinded to participants' study group allocation, measured the height (m) and weight (kg) of young people, using a stadiometer and calibrated digital scales, at T0, T1 and T2, and BMIfor-age z-scores were calculated (de Onis et al., 2007). Mental health outcome 1 Symptoms of depression, anxiety, and stress: Symptoms of depression, anxiety and stress were measured using the Depression Anxiety Stress Scale 21 (DASS 21) (Lovibond and Lovibond, 1995). The DASS is a 21-item measure, with items ranked on a scale of how often the statement applied to the individual in the past week. The DASS 21 is a short-form version of the DASS 42; each subscale is given a score out of 21, summed from the seven items for each construct (stress, depression and anxiety), multiplied by two and classified according to the severity of the symptoms, with five possible classifications: normal, mild, moderate, severe and extremely severe.
Study arms	**Health and Wellbeing Coordinator (N = 58)** The HAWC programme pilot tests having a coordinator work alongside young people and staff to: (1) improve their understanding and awareness of healthy living and its value, mentally and physically; and (2) encourage them to participate in physical and other health activities. The pilot programme resulted in healthier eating and physical activity habits of the young people, and improved psychological wellbeing. The success of the HAWC pilot led to development, and evaluation of

	the HEAL programme; key stakeholders including residential carers, team leaders, executive managers and young people were engaged and consulted on decisions made regarding development of the programme materials. HEAL provides education on physical activity and healthy eating, community connections to foster these behaviours in the young people and good role modelling among their carers. HEAL is delivered by trained coordinators (either an external appointment or an internal residential carer trained in the HEAL programme protocols). Coordinators meet young people individually to develop a tailored health plan that includes goal setting around dietary and physical activity behaviours. Coordinators deliver the intervention, which includes activities such as healthy cooking lessons and sports challenges, and is structured around eight fortnightly themes addressing healthy eating, physical activity and wellbeing.

% Female	53.4%
Mean age (SD)	14.20 ± 1.90 years
Condition specific characteristics	non-white ethnicity 15.5% were aboriginal or Torres Strait Islander Smoker 70.7% current smokers Type of care in residential care: 21.82 SD 23.31 months BMI category Thin 0%; healthy 29.3%; overweight 36.2%; obese 34.5%
Outcome measures	Health outcome 1 The number of serves on the previous day of sugary drinks, mean score at 6-months/12-months follow up: 2.90 SD 2.70/2.44 SD 2.20. The number of serves on the previous day of healthy foods, mean score at 6-months/12-months follow up: 2.42 SD 2.32/2.34 SD 2.70. The number of serves on the previous day of unhealthy foods, mean score at 6-months/12-months follow up: 3.00 SD 3.00/3.53 SD 4.15. Health outcome 2 Screen time: television, minutes watching in 1 day, mean at 6 months/12 months follow up: 133.25 SD 158.90/173.44 SD 232.60 Health outcome 3

		Physical activity - number of active days in a week, at 6-months/12-months follow up: 3.92 SD 2.33/2.75 SD 2.20 Health outcome 4 BMI z-score, mean at 6-months/12-months follow up: 1.42 SD 1.50/0.72 SD 1.44 Mental health outcome 1 Symptoms of depression mean score at 6-months/12-months follow up: 12.9 SD 12.7/17.4 SD 14.0; Symptoms of anxiety mean score at 6-months/12-months follow up: 9.50 SD 8.0/14.3 SD 12.4; Symptoms of stress mean score at 6-months/12-months follow up: 14.9 SD 11.1/20.4 SD 13.2;
	Wait list control (N = 12) Young people received a $30 gift card for their participation at each time point. Carers had a one in ten chance of winning a $50 gift card for their participation if all three questionnaires were returned.	
	% Female	33.3%
	Mean age (SD)	16.00 ± 0.90 years
	Condition specific characteristics	non-white ethnicity 0% aboriginal or Torres Strait Islander Smoker 83.3% Type of care 100% residential time spent in care 22.40 ± 14.70 months BMI category thin 0%; healthy 41.7%; overweight 16.7%; obese 41.7%
	Outcome measures	Health outcome 1

	The number of serves on the previous day of sugary drinks, mean score at 6-months/12-months follow up: 2.00 SD 2.92/2.33 SD 2.53. The number of serves on the previous day of healthy foods, mean score at 6-months/12-months follow up: 3.00 SD 2.12/1.70 SD 2.90. The number of serves on the previous day of unhealthy foods, mean score at 6-months/12-months follow up: 1.80 SD 2.05/2.33 SD 3.21. Health outcome 2 Screen time: television, minutes watching in 1 day, mean at 6 months/12 months follow up: 205.00 SD 272.72/60.00 SD 103.92 Health outcome 3 Physical activity - number of active days in a week, at 6-months/12-months follow up: 5.60 SD 2.61/5.70 SD 2.31 Health outcome 4 BMI z-score, mean at 6-months/12-months follow up: 1.24 SD 1.70/0.35 SD 2.00 Mental health outcome 1 Symptoms of depression mean score at 6-months/12-months follow up: 12.0 SD 17.0/2.6 SD 4.6; Symptoms of anxiety mean score at 6-months/12-months follow up: 10.0 SD 10.8/2.0 SD 3.5; Symptoms of stress mean score at 6-months/12-months follow up: 16.4 SD 15.3/6.0 SD 10.4;
Risk of bias	**1a. Bias arising from the randomisation process** High (Age was significantly different between youth across groups, youth in wait list control were older by a mean of 2 years. There were far fewer participants in the control group. Unclear how randomisation was performed, unclear if allocation concealment.) **1b. Bias arising from the timing of identification and recruitment of individual participants in relation to timing of randomisation** High (Unclear if participants were recruited before randomisation. Many more youth were randomised to the intervention group suggesting possible differential recruitment into control arms) **2. Bias due to deviations from intended interventions (If your aim is to assess the effect of assignment to intervention, answer the following questions).** Low **3. Bias due to missing outcome data**

	High (two thirds of participants were missing in both arms by the end of the study) **4. Bias in measurement of the outcome** Low **5. Bias in selection of the reported result** Low **Overall bias and Directness** High (Very high rate of drop out by 12 months (as much as 2/3 across both arms). Differences between control and intervention groups at baseline suggest a problem with randomisation. Unclear if allocation concealment) **Overall Directness** Indirectly applicable (Australian population)

Conn 2018

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Children in foster care aged 2-7 years
Study dates	Not reported

Duration of follow-up	Postintervention
Sources of funding	New York State Health Foundation
Inclusion criteria	Age 2-7 years old Care situation in family-based foster care
Sample size	51 randomised to interventions
Split between study groups	Incredible Years = 26 Control group = 25
Loss to follow-up	IY: 7 did not participate in the intervention group, 3 in the intervention group lost to follow up Control: 6 did not participate in the control intervention, 2 in the control group lost to follow up
% Female	not reported for total sample
Mean age (SD)	not reported for total sample
Outcome measures	Behavioural outcome 1 Child Behavior Checklist: One of two versions were completed by the foster parent, dependent on the child's age at the time of administration (< or>6 years). Item responses for each version of the CBCL are summed and converted to a total problem T-score, standardized according to age (mean=50, SD=10). We used clinically significant scores (> 64) to dichotomize mental health problems. The CBCL asks parents to report on behaviors observed over the past 6 months. Due to the short duration between screenings, we asked parents, both pre and post, to report on behaviors that occurred over the past two weeks. Mental health outcome 1 Mental health: foster parents were asked to report 1) their perception of whether or not the child was in need of mental health care, and 2) whether the child was in receipt of mental health treatment at follow up

	Relationship outcome Parenting Stress: The Parenting Stress Index-Short Form (PSI-SF) is a 36-item Likert survey that is often used in pediatric settings (Abidin, 1990). The PSI-SF measures total stress and has three subscales measuring Parental Distress, Parent-Child Dysfunctional Interaction, and Difficult Child. Lower scores on the PSI-SF indicate less parental stress. relationship outcome 2 Parenting attitudes: The Adult–Adolescent Parenting Inventory (AAPI-2) is a 40-item Likert survey that has been used in a variety of settings. The AAPI-2 provides standard scores for five domains representative of different parenting attitudes and child rearing practices, including: (1) expectations of children; 2) parental empathy toward children's needs; 3) use of corporal punishment; 4) parent-child family roles; 5) children's power and independence). In each domain, high scores indicate appropriate expectations, while low scores indicate inappropriate expectations and risk for maltreatment.
Study Arms	**Incredible Years (N = 16)** This was a “trauma-informed” version of a well-known evidence-based parenting intervention, The Incredible Years Basic Preschool program is a 14 week prevention program for parents of children aged three to six years that is designed to build skills in positive parenting, teaching, and engaging with child serving systems. Using a pyramid model to guide the development and use of parenting tools, IY stresses that the majority of parent-child interactions should be positive and preventive while discipline (such as natural consequences and time out) should be used sparingly and is less often needed when parents utilize positive and preventive skills. Thus, IY emphasizes the use of play to build positive behaviors and devotes the first four sessions to perfecting this skill as the foundation of positive parent child relations. While the IY program already includes aspects of tailoring to specific needs of individual families and children's developmental needs, we enhanced the curriculum to include specific information on the impact of childhood trauma on development, and the unique parenting role of foster parents. This information was derived from the National Child Traumatic Stress Network foster parent training resources (Child Welfare Collaborative Group, 2013) and Fostering Futures (Nilsen, 2007), a curriculum of foster parent training based on the school-aged Incredible Years series. Specific additions included developmental and culturally relevant handouts, activities, and discussions about attachment and bonding in foster care, roles and challenges for the foster parent, the impact of trauma on development and play, and the importance of promoting safety and security through the predictability of routine. Parents met for 2.5 h sessions (1/2 h longer than outlined in the IY protocol) to accommodate additional enhancements. However, the original 14-week curriculum was modified to 13 consecutive weeks to reduce the duration of education on time-out as a response to behavior (authors condensed the information from two IY sessions on time-out into one session). This was done because authors believed time out, or the removal of attention in response to a behavior, had the potential to re-traumatize some maltreated children. The program

was extended to foster parents of children aged two through seven years. The first cohort met at an off-site community based location and the other two cohorts met onsite at the pediatric medical home. Parent sessions included dinner and childcare.

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Children in foster care aged 2-7 years
Study dates	Not reported
Duration of follow-up	Postintervention
Sources of funding	New York State Health Foundation
Inclusion criteria	Age 2-7 years old Care situation in family-based foster care
Sample size	51 randomised to interventions
Split between study groups	Incredible Years = 26 Control group = 25

	Loss to follow-up	IY: 7 did not participate in the intervention group, 3 in the intervention group lost to follow up Control: 6 did not participate in the control intervention, 2 in the control group lost to follow up
	% Female	Caregiver female: 81.3% Child female: 40%
	Mean age (SD)	33.14 ± 16.45 months
	Condition specific characteristics	Non-white ethnicity Child black: 20% Number of care placements 2.00 ± 0.96 time in care months in foster care: 19.07 ± 15.72 months Emotional or Behavioural disorders in need of mental health treatment: 86.7%
	Outcome measures	Behavioural outcome 1 Child Behavior Checklist: Total behavioural problems score postintervention/change from baseline, mean: 52.4 ± 11.9/-4.1 ± 9.6; Externalising problems score postintervention/change from baseline, mean: 54.9 ± 10.8/-4.8 ± 10.2; internalising problems score postintervention/change from baseline, mean: 52.3 ± 10.9/-2.8 ± 10.5 Mental health outcome 1 Foster parent report: number of children in need of mental health care postintervention: 9 (56.2%); number of children in receipt of mental health treatment postintervention: 8 (80%) Relationship outcome Parenting Stress (Parenting Stress Index): Stress score mean score postintervention/difference from baseline: 69.6 ± 12.1/-6.3 ± 22.3; Parent distress score mean score postintervention/difference from baseline: 21.4 ± 6.7/-3.2 ± 9.9; Dysfunction score mean score postintervention/difference from baseline: 20.9 ± 3.4/-1.2 ± 4.7; Difficult child score mean score postintervention/difference from baseline: 27.3 ± 8.5/-1.9 ± 11.0

	relationship outcome 2 Parenting attitudes (The Adult–Adolescent Parenting Inventory), mean score postintervention/mean change from baseline: Expectations of children: 22.9 ± 4.9/0.4 ± 4.7; Parental empathy: 45.2 ± 2.8/2.5 ± 3.3; use of corporal punishment 47.9 ± 5.5/0.8 ± 4.3; parent-child family roles: 28.4 ± 4.4/-2.7 ± 2.4; Childrens power and autonomy: 21.6 ± 2.1/0.1 ± 2.3

Wait list control (N = 17)
eligible foster parents who participated as control subjects were eligible to participate in the intervention in subsequent cohorts

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Children in foster care aged 2-7 years
Study dates	Not reported
Duration of follow-up	Postintervention
Sources of funding	New York State Health Foundation
Inclusion criteria	Age 2-7 years old Care situation in family-based foster care
Sample size	51 randomised to interventions

Split between study groups	Incredible Years = 26 Control group = 25
Loss to follow-up	IY: 7 did not participate in the intervention group, 3 in the intervention group lost to follow up Control: 6 did not participate in the control intervention, 2 in the control group lost to follow up
% Female	93.8%
Mean age (SD)	42.88 ± 12.59
Condition specific characteristics	Non-white ethnicity 52.9% Number of care placements 2.29 ±0.99 time in care 24.29 ± 18.25 months Emotional or Behavioural disorders in need of mental health treatment 41.2%
Outcome measures	Behavioural outcome 1 Child Behavior Checklist: Total behavioural problems score postintervention/change from baseline, mean: 51.8 ± 14.6/-5.6 ± 5.4; Externalising problems score postintervention/change from baseline, mean: 56.1 ± 13.9/-4.0 ± 5.7; internalising problems score postintervention/change from baseline, mean: 51.6 ± 12.5/-5.1 ± 8.0 Mental health outcome 1 Foster parent report: number of children in need of mental health care postintervention: 10 (58.8%); number of children in receipt of mental health treatment postintervention: 7 (53.8%) Relationship outcome

	Parenting Stress (Parenting Stress Index): Stress score mean score postintervention/difference from baseline: 68.4 ± 17.8/-3.8 ± 11.0; Parent distress score mean score postintervention/difference from baseline: 20.3 ± 4.6/-2.0 ± 5.2; Dysfunction score mean score postintervention/difference from baseline: 20.2 ± 5.4/-0.5 ± 3.5; Difficult child score mean score postintervention/difference from baseline: 27.8 ± 9.4/-1.3 ± 4.1 relationship outcome 2 Parenting attitudes (The Adult–Adolescent Parenting Inventory), mean score postintervention/mean change from baseline: Expectations of children: 24.6 ± 2.7/2.3 ± 4.2; Parental empathy: 44.6 ± 3.5/4.1 ± 4.5; use of corporal punishment 43.2 ± 6.4/-0.8 ± 3.5; parent-child family roles: 28.0 ± 3.4/-0.6 ± 3.1; Childrens power and autonomy: 20.9 ± 2.2/-0.6 ± 2.2
Risk of Bias	**Domain 1: Bias arising from the randomisation process** High **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low **Domain 3. Bias due to missing outcome data** Low **Domain 4. Bias in measurement of the outcome** Some concerns **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** High (No blinding. Method of randomization not provided and there are differences between the two arms in terms of child age and 'child needs mental health treatment'.) **Overall Directness**

	Partially applicable (USA study)

Dominick 2014

Study type	Cluster randomised controlled trial
Study location	USA
Study setting	Youth in residential children's homes
Study dates	2004 to 2008
Duration of follow-up	2 years
Sources of funding	supported by The Duke Endowment
Inclusion criteria	Care situation In a residential home with a relatively stable population of children requiring low-to-moderate management with no restrictions on PA. Age Children were recruited if they were 11–18 years of age and could complete questionnaires with minimal assistance.
Sample size	261
Split between study groups	ENRICH = 115 Delayed intervention = 146

Loss to follow-up	One early intervention residential care home dropped out during the first year, unclear how many participants
% Female	not reported for total sample
Mean age (SD)	not reported for total sample
Outcome measures	Health outcome 1 Children's physical activity: assessed using the 3-Day Physical Activity Recall (3-DPAR): Children's PA was assessed using the 3-DPAR which includes self-reported physical and sedentary activities. The 3-DPAR is administered by trained research assistants and has been found to be valid for adolescent boys and girls (McMurray et al., 2004; Pate et al., 2003). Briefly, each child referred to a list of 62 activities indicating the predominant activity performed within 30-min block periods (7:00 a.m. to midnight) for each of the three previous days. The 3-DPAR was administered on a Tuesday, Wednesday, or Thursday to capture weekday and weekend activities. Physical and sedentary activities were grouped into the following categories: eating, work, after school/spare-time/hobbies, transportation, sleep/bathing, school, physical activities and sports. Two open ended responses were offered for children to include additional activities not provided in the list. An age-appropriate script with graphic figures was used to help children identify the intensity of each reported activity (light, moderate, hard, very hard intensity). metabolic equivalent (MET) values were based on the Compendium of physical activities. Data were summarized by adding the number of 30-min blocks for which the reported activity was rated at an intensity of three or more METs consistent with the 2008 PA guidelines for moderate-to-vigorous physical activity (MVPA) (United States Department of Health and Human Services, 2008). To assess program effectiveness, Early and Delayed homes were compared on total METS and on the percentage of children achieving two or more blocks of MVPA.
Study arms	**ENRICH intervention (N = 115)** The ENRICH intervention entailed developing working relationships with residential care home (RCH) staff to achieve the mutually agreed-upon goal of enhancing RCH social and physical environments to promote physical activity (PA) for children residing in the homes. Adult staff formed small working groups, Wellness Teams (WT) which served as organizational change agents by developing and carrying out plans to create RCH environments that supported PA. Project staff provided two annual regional WT trainings between 2004 and 2006 (Early Group) and 2006–2008 Delayed Group. Individual WT consultations and personal/technical support were also provided upon request. ENRICH was designed as a flexible intervention which allowed for WTs to modify the intervention as it suited their organizational context. This process allowed for organizational adaptation in which to customize to their specific setting while keeping with the overall ENRICH intervention elements based on a pre-defined conceptual framework. Elements of the health-promoting environment included: (1) opportunities for enjoyable PA; (2) RCH policies and practices that support PA; (3) media (promotion) and cultural (adult modeling) messages promoting PA; and (4) adult support and encouragement for PA. The WTs implemented a variety of strategies based on their assessments. Most promoted on and offsite PA opportunities through flyers and announcements, and provided training to staff members on the importance of encouraging the children to be active and

	participating in activities with the children. Some WTs implemented ''girls only'' workout sessions or added activities selected by the children. Others modified schedules to preclude other activities (e.g. homework) during time scheduled for PA.

Inclusion criteria	Care situation In a residential home with a relatively stable population of children requiring low-to-moderate management with no restrictions on PA.
Loss to follow-up	None apparent, participant level data was cross sectional.
% Female	44.3%
Mean age (SD)	15.0 ± 1.9 years
Condition specific characteristics	non-white ethnicity 55.6% time spent in care Years in current residential care home: 0.9 ± 0.9 BMI category BMI: 24.0 ± 6.8
Outcome measures	Health outcome 1 Children's physical activity (the 3-Day Physical Activity Recall - metabolic equivalent (MET) values): mean total METs: 61.1 SE 1.6. Percentage achieving two or more 30-minute blocks of moderate-to-vigorous physical activity: 61.3%. Results were adjusted for age, sex, BMI, ethnicity, school onsite, time in home, recreational director, and residential care home.

	Delayed intervention (waitlist) (N = 146) Project staff provided two annual regional WT trainings between 2004 and 2006 (Early Group) and 2006–2008 (Delayed Group).

<table>
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<table>
<tr><td>Inclusion criteria</td><td>Care situation
In a residential home with a relatively stable population of children requiring low-to-moderate management with no restrictions on PA.</td></tr>
<tr><td>Loss to follow-up</td><td>None apparent, participant level data was cross sectional.</td></tr>
<tr><td>Outcome measures</td><td>Health outcome 1
Children's physical activity (the 3-Day Physical Activity Recall - metabolic equivalent (MET) values): mean total METs: 64.0 SE 1.7. Percentage achieving two or more 30-minute blocks of moderate-to-vigorous physical activity: 70.8%. Results were adjusted for age, sex, BMI, ethnicity, school onsite, time in home, recreational director, and residential care home.</td></tr>
</table>
</td></tr>
<tr><td>Risk of bias</td><td>1a. Bias arising from the randomisation process
Some concerns
(Unclear how randomisation was performed unclear if allocation concealment)
1b. Bias arising from the timing of identification and recruitment of individual participants in relation to timing of randomisation
Low
2. Bias due to deviations from intended interventions (If your aim is to assess the effect of assignment to intervention, answer the following questions).
Some concerns
(Study considered different "waves" of participants; it is unclear if participants moved between the residential care homes under study. However, study states that implementation of PA-promoting environment was independent of assignment to condition)
3. Bias due to missing outcome data
Some concerns</td></tr>
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	(Study used cross-sectional (not follow up) data, therefore recruitment and measurement of outcomes likely occurred at the same time. One randomised residential care home dropped out of the study, however, it is unclear how many participants were part of this care home and whether there were any further missing data) **4. Bias in measurement of the outcome** Yes **Risk of bias judgement for measurement of the outcome** Some concerns (Physical activity outcomes were self-report, assessors were trained but unclear if blinding procedures were applied.) **5. Bias in selection of the reported result** Low **Overall bias and Directness** Some concerns **Overall Directness** Indirectly applicable (USA-based study)

Dozier 2006

Study type	Randomised controlled trial (RCT)
Study location	USA

Study setting	Toddlers and infants in foster care
Study dates	not reported
Duration of follow-up	1 month after completion of training
Sources of funding	National Institute of Mental Health
Inclusion criteria	Care situation In foster care Age Infants and toddlers
Sample size	60
Split between study groups	Unclear how number of participants split between study groups, if we assume randomisation was equal then ABC = 30 DEF = 30
Loss to follow-up	None reported
% Female	50%
Mean age (SD)	Not reported for the total group (range 3.6 to 39.4 months)
Condition specific characteristics	non-white ethnicity 68%

Outcome measures	Health outcome 1 Postintervention salivary cortisol: The procedures used for collecting and assaying cortisol carefully followed established protocol (e.g., Gunnar & White, 2001). Experimenters trained foster parents to collect and store saliva samples in the caregivers' homes. Additionally, step-by-step pictorial directions of the sampling procedure were given to parents along with the sampling materials. Foster parents collected saliva samples from children two times daily over a 2-day period. The two assessments were when the child first woke up and at bedtime, and the caregivers were asked to collect the samples over two "typical" days for the child at home. Two days of data were collected to provide a reliable assessment of cortisol levels at each time of day. Behavioural outcome 1 Problem behaviour score at 1 month postintervention: Parent daily report. Parents completed the infant-toddler or the preschool version of the Parent's Daily Report (PDR/IT) adapted from the PDR(Chamberlain&Reid, 1987) daily for 3 days at post-intervention assessments.
Study arms	**Attachment and Behavioural Catch-up (ABC) (N = 30)** The ABC intervention was designed to enhance children's attachment organization. Attachment and Biobehavioral Catch-up (ABC) intervention is a 10-session, manualized parenting program aimed at enhancing young children's self-regulatory capacities by helping caregivers provide nurturing and synchronous care. These two intervention components (i.e., nurturance in response to child distress, and synchronous parent-child interactions) are targeted in a number of ways. It was designed to help parents change to: provide nurturance when children are distressed both by re-interpreting children's alienating behaviors (Sessions 1–2) and by overriding their own issues that interfere with providing nurturing care (Sessions 7–8); provide a sensitive, responsive environment by following the child's lead with delight when children are not distressed (Sessions 3–4); and behave in ways that are not frightening to children (Sessions 5–6). Interventionists describe the importance of providing nurturing and synchronous care, based on developmental research. Additionally, interventionists videotape parent-child interactions during structured activities designed to help caregivers practice being synchronous by "following the child's lead." Interventionists provide feedback using video clips that highlight times when caregivers interacted with their children in nurturing and synchronous ways versus times when they struggled to do so (e.g., directing or teaching, intruding on the child's space, or being passive and disengaged). Finally, interventionists help caregivers consider how their own early experiences (e.g., not receiving nurturing care themselves) may make it more difficult to provide nurturing and synchronous care to their children. For both interventions, parent trainers were professional social workers or psychologists with at least 5 years clinical experience. They administered ten training sessions according to a structured training manual. All sessions were videotaped, allowing assessments of fidelity to the manual. Sessions took place in foster parent homes. To the extent possible, the format, duration, and frequency of the interventions were similar for the two interventions.

	Sources of funding	National Institute of Mental Health
	Inclusion criteria	Care situation In foster care Age Infants and toddlers
	Sample size	60
	Split between study groups	Unclear how number of participants split between study groups, if we assume randomisation was equal then ABC = 30 DEF = 30
	Loss to follow-up	None reported
	% Female	not reported for study arms
	Mean age (SD)	19.01 ± 9.64 months
	Outcome measures	Health outcome 1 Postintervention salivary cortisol slopes from morning to evening: mean AM cortisol: 0.41 SD 0.43; mean PM cortisol: 0.12 SD 0.13. Mean difference between ABC and DEF group - overall mean difference: -0.37 SE 0.11 (p<0.001) Behavioural outcome 1 Problem behaviour score at 1 month postintervention (Parent daily report) mean score: 0.29 SD 0.16
	Developmental Education for Families (N = 30)	

<table>
<tr><td></td><td>The DEF sessions were of the same duration (10-hr-long sessions) and frequency (weekly) as the ABC intervention. The educational intervention was borrowed partly from the home visitation component of the early intervention program developed by Ramey and colleagues (Ramey et al. 1982, 1984). This intervention was designed to enhance cognitive, and especially linguistic, development. The intervention has been successful in improving intellectual functioning when provided intensively and for a long duration in day care settings (Brooks-Gunn et al. 1993). Components that involve parental sensitivity to child cues were excluded in our version of the intervention so as to keep the interventions distinct. Although the intervention is manualized, specific activities take into account child's developmental level. For both interventions, parent trainers were professional social workers or psychologists with at least 5 years clinical experience. They administered ten training sessions according to a structured training manual. All sessions were videotaped, allowing assessments of fidelity to the manual. Sessions took place in foster parent homes. To the extent possible, the format, duration, and frequency of the interventions were similar for the two interventions.
<table><tr><td>Outcome measures</td><td>Health outcome 1
Postintervention salivary cortisol slopes from morning to evening: mean AM cortisol: 0.80 SD 0.91; mean PM cortisol: 0.42 SD 0.69.

Behavioural outcome 1
Problem behaviour score at 1 month postintervention (Parent daily report) mean score: 0.31 SD 0.15</td></tr></table></td></tr>
<tr><td>Risk of Bias</td><td>Domain 1: Bias arising from the randomisation process

Some concerns

(Unclear how randomisation was performed or whether there was allocation concealment. Study reports no differences between groups with respect to age, gender, or ethnicity but does not present data.)

Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)

Low

Domain 3. Bias due to missing outcome data

Risk-of-bias judgement for missing outcome data</td></tr>
</table>

	High (Study did not report any information about the quantity of missing data. In fact, it was unclear how many participants had even been assigned to either the control or intervention group) **Domain 4. Bias in measurement of the outcome** Low (Foster parents and birth parents were blind to condition, as were researchers responsible for entering data, assaying cortisol samples, and analysing data.) **Domain 5. Bias in selection of the reported result** Some concerns (Study provided poor information regarding how the trial was performed. No protocol was cited.) **Overall bias and Directness** High **Overall Directness** Indirectly applicable (USA-based study)

Dozier 2008

Study type	Randomised controlled trial (RCT)
Study location	USA

Study setting	infants and toddlers in foster care
Study dates	not reported
Duration of follow-up	Participants were children who had completed the ABC and DEF intervention. It is unclear how much time after recieving the intervention they took part in the current study (however, participants were still toddlers (range 15 to 24 months).
Sources of funding	National Institute of Mental Health
Inclusion criteria	Care situation infants and toddlers in foster care
Sample size	93
Split between study groups	ABC = 46 DEF = 47
Loss to follow-up	none reported
% Female	not reported for the total sample
Mean age (SD)	not reported for the total sample
Outcome measures	Health outcome 1 Initial salivary cortisol levels (pre-strange situation): The procedures used for collecting and assaying cortisol carefully followed established protocol (e.g., Gunnar & White, 2001). Experimenters trained parents to collect saliva samples. Parents collected saliva samples from children when they first arrived at the lab, 15 min after completion of the Strange Situation, and 30 min after completion of the Strange Situation. In addition, a subset of foster parents collected salivary cortisol samples prior to leaving home for the lab, and 2 hr after completion of the Strange Situation (after returning home). Health outcome 2

	Salivary cortisol following strange situation: —The Strange Situation (Ainsworth et al., 1978) consists of seven episodes that are designed to increasingly stress the child and elicit attachment behavior. In the first episode, the infant and caregiver enter the waiting room, where the mother takes a seat and invites the child to play with toys that are on the floor. In the second episode, a "stranger" (always a female) enters the room and takes a seat beside the mother. After a 1- min period without any interaction, the stranger interacts with the mother for 1 min and then with the child for 1 min. In the fourth episode, the parent leaves the room, such that the child is alone in the room with the stranger. In the fifth episode, the parent returns to the room; the stranger leaves unobtrusively when possible. In the sixth episode, the parent again leaves, this time leaving the child alone in the room. In the seventh episode, the stranger returns and in the eighth episode the parent returns. Episodes are typically of 3-min duration, although separations are shortened when children show extreme behavioral distress.
Study arms	**Attachment and Behavioural Catch-up (ABC) (N = 46)** The ABC intervention was designed to enhance children's attachment organization. Attachment and Biobehavioral Catch-up (ABC) intervention is a 10-session, manualized parenting program aimed at enhancing young children's self-regulatory capacities by helping caregivers provide nurturing and synchronous care. These two intervention components (i.e., nurturance in response to child distress, and synchronous parent-child interactions) are targeted in a number of ways. It was designed to help parents change to: provide nurturance when children are distressed both by re-interpreting children's alienating behaviors (Sessions 1–2) and by overriding their own issues that interfere with providing nurturing care (Sessions 7–8); provide a sensitive, responsive environment by following the child's lead with delight when children are not distressed (Sessions 3–4); and behave in ways that are not frightening to children (Sessions 5–6). Interventionists describe the importance of providing nurturing and synchronous care, based on developmental research. Additionally, interventionists videotape parent-child interactions during structured activities designed to help caregivers practice being synchronous by "following the child's lead." Interventionists provide feedback using video clips that highlight times when caregivers interacted with their children in nurturing and synchronous ways versus times when they struggled to do so (e.g., directing or teaching, intruding on the child's space, or being passive and disengaged). Finally, interventionists help caregivers consider how their own early experiences (e.g., not receiving nurturing care themselves) may make it more difficult to provide nurturing and synchronous care to their children.

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	infants and toddlers in foster care

	Study dates	not reported
	Duration of follow-up	Participants were children who had completed the ABC and DEF intervention. It is unclear how much time after recieving the intervention they took part in the current study (however, participants were still toddlers (range 15 to 24 months).
	Sources of funding	National Institute of Mental Health
	Sample size	93
	Split between study groups	ABC = 46 DEF = 47
	Loss to follow-up	none reported
	% Female	59%
	Mean age (SD)	20.0 ± 5.98 months
	Condition specific characteristics	non-white ethnicity 83%
	Outcome measures	Health outcome 1 Initial salivary cortisol levels (pre-strange situation): association between being in the ABC group and initial cortisol level: beta coefficient -0.27 SE 0.10, adjusted for gender, ethnicity, and age Health outcome 2 Salivary cortisol following strange situation: association between being in the ABC group and change in salivary cortisol following the strange situation: beta coefficient: 0.06 SE 0.04, adjusted for age, sex, and ethnicity

	Developmental Education for Families (DEF) (N = 47) The DEF sessions were of the same duration (10-hr-long sessions) and frequency (weekly) as the ABC intervention. The educational intervention was borrowed partly from the home visitation component of the early intervention program developed by Ramey and colleagues (Ramey et al. 1982, 1984). This intervention was designed to enhance cognitive, and especially linguistic, development. The intervention has been successful in improving intellectual functioning when provided intensively and for a long duration in day care settings (Brooks-Gunn et al. 1993). Components that involve parental sensitivity to child cues were excluded in our version of the intervention so as to keep the interventions distinct. Although the intervention is manualized, specific activities take into account child's developmental level. % Female: 43% Mean age (SD): 19.5 ± 5.6 months Condition specific characteristics: non-white ethnicity 71%
Risk of bias	**Domain 1: Bias arising from the randomisation process** High (Unclear how randomisation was performed, unclear if allocation concealment. There was considerable differences between DEF and ABC groups for gender and non-white ethnicity which suggested a problem with randomisation. In addition, few baseline variables were reported making it difficult to assess for any other important differences between groups.) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low **Domain 3. Bias due to missing outcome data** High

	(It appears this study had missing data, however it is unclear how much and whether this difference between intervention groups. In addition this study does not report whether loss to follow up occurred following initial randomisation). **Domain 4. Bias in measurement of the outcome** High (Cortisol measures likely took place at different times of day. Cortisol is known to vary significantly depending on the time of day. Adjusted results were not presented. In addition, the strange situation was run using cortisol levels upon entrance to the lab as baseline, these are unlikely to reflect normal levels of cortisol since participants are in an unusual environment). **Domain 5. Bias in selection of the reported result** Some concerns (Publication is poorly reported in terms of describing the original trial). **Overall bias and Directness** High **Overall Directness** Indirectly applicable (USA-based study)

Farmer 2010

Study type	Randomised controlled trial (RCT)
Study location	USA

Study setting	CHildren with mental health problems referred to treatment foster care agencies
Study dates	2003 to 2008
Duration of follow-up	12 months
Sources of funding	National Institute of Mental Health
Inclusion criteria	Care situation youth who lived in TFC homes in participating agencies at the time the study started as well as all youth who entered the agencies during the following 18 months.
Sample size	247
Split between study groups	Intervention = 137 Control = 110
Loss to follow-up	TFC = 29 (21%) Control = 24 (22%)
% Female	45%
Mean age (SD)	12.9 ± 3.8 years
Condition specific characteristics	Non-white ethnicity 67% time in care length of stay in treatment foster care: 20.5 ± 25.1

	Emotional or Behavioural disorders Parent Daily Report score at baseline: 5.8 ± 4.8 Mental health needs SDQ score at baseline: 16.3 ± 6.9
Outcome measures	Behavioural outcome 1 Parent Daily Report Score: The PDR obtains information about the number of types of problematic behavior the youth displayed in the past 24 hours. Strengths outcome 1 The strengths and difficulties questionnaire: provides an indication of clinical severity of the youth's problems. This 25-item measure includes five subscales (emotional symptoms, conduct problems, inattention, hyperactivity, peer problems, prosocial behavior) as well as a "total difficulties" score (composed of the first four subscales). This study used the total difficulties score. Strengths outcome 2 The BERS provides an indication of a youth's strengths. This 52-item instrument includes 5 subscales (interpersonal strength, family involvement, intrapersonal strength, school functioning, and affective strength) and an overall strength quotient, which was used in the current analyses.
Study Arms	**Treatment Foster Care (Together Facing the Challenge) (N = 137)** Many of the components that are considered to be critical to TFC were already evident in usual care practice. These included care coordination/case management, a view of treatment parents as key change agents, a team approach to treatment, respite, and work with youths' families. However, compared to the evidence-based version of TFC, usual care TFC was conspicuously lacking in two areas: intensity of supervision/support of treatment parents by TFC supervisory staff, and proactive teaching-oriented approaches to problem behaviors. Therefore, the study provided training on these two potentially critical areas. Training with TFC supervisors and treatment parents followed a study-developed protocol titled "Together Facing the Challenge." This "train the trainer" model included two full days of training with TFC supervisors prior to training with treatment parents. The two-day training with supervisors provided (a) an overview of the upcoming training to be done with treatment parents, (b) discussion about their current practices/interactions with treatment parents, and (c) opportunities to practice skills and training elements so that they could serve as co-facilitators in the treatment parent training. Follow-up consultation visits were held monthly for one year after this initial training. These group-format consultation sessions focused on a combination of preplanned topics as well as discussion/problem-solving on emergent and salient issues from the supervisors. Training with treatment parents was conducted over a six week

	period, with 2.5 hour sessions once a week (sessions were held in the evening and a meal and child care were provided). All training sessions were led by the study's Intervention Director, with assistance from agency TFC supervisors. Topics for the six weeks included: (1) building relationships and teaching cooperation; (2) setting expectations; (3) use of effective parenting tools to enhance cooperation; (4) Implementing effective consequences; (5) Preparing youth for the future; and (6) Taking care of self. All sessions included didactic instruction, role plays/exercises, and homework assignments for the treatment parent to do during the week. Much of the training built from established parent-training approaches found in MTFC. In addition, two additional elements emerged from our previous study of usual care TFC and were included in the intervention. two issues emerged that were not formally addressed in MTFC nor in existing treatment as usual TFC: preparation for adulthood and previous trauma. Therefore, focus on transition related issues was included in the training and consulting work with supervisors. Previous trauma was addressed via training/consultation with local clinicians who worked with youth from the participating TFC programs in Trauma-Focused Cognitive Behavioral Therapy (TFCBT). The study provided a cadre of trained clinicians in each participating community. Whether a specific youth received such treatment was decided by agencies and clinicians on an individual basis.

% Female	40%
Mean age (SD)	12.7 ± 3.8 years
Condition specific characteristics	Non-white ethnicity 66% time in care length of stay in treatment foster care: 20.3 ± 26.8 Emotional or Behavioural disorders Parent Daily Report score at baseline: 5.9 ± 4.8 Mental health needs SDQ score at baseline: 17.4 ± 6.8

	Outcome measures	Behavioural outcome 1 Parent Daily Report Score z score of the difference of means between intervention group and comparison group at 6 months/12 months follow up: 0.302 ± 0.214/0.383 ± 0.274 (p= <0.01/<0.01); adjusting for baseline PDR score and wave at follow up, being in the intervention group was significantly associated with reduced PDR score by 12 months: beta coefficient -0.233 ± 0.143 Strengths outcome 1 The strengths and difficulties questionnaire z score of the difference of means between intervention group and comparison group at 6 months/12 months follow up: 0.411 ± 0.243/0.161 ± 0.276 (p= <0.001/0.254); adjusting for baseline PDR score and wave at follow up, being in the intervention group was significantly associated with reduced SDQ score by 12 months: beta coefficient -0.176 ± 0.149 Strengths outcome 2 Behavioral and Emotional Rating Scale: z score of the mean differences between intervention and comparison group at 6 months/12 months follow up: -0.243 ± 0.209/0.020 ± 0.231 (p= <0.001/0.254); adjusting for baseline PDR score and wave at follow up, being in the intervention group was not significantly associated with reduced BERS score by 12 months: beta coefficient 0.068 ± 0.133
	Treatment Foster Care as Usual (N = 110) Agencies in the control arm continued to provide treatment foster care as usual.	
	Condition specific characteristics	Non-white ethnicity 67% time in care length of stay in treatment foster care: 20.7 ± 22.9 Emotional or Behavioural disorders Parent Daily Report score at baseline: 5.6 ± 4.9 Mental health needs SDQ score at baseline: 14.6 ± 6.8
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Low **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)**	

	Low **Domain 3. Bias due to missing outcome data** Low **Domain 4. Bias in measurement of the outcome** High **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** Some concerns (No blinding and the outcomes are somewhat subjective.) **Overall Directness** Partially applicable (USA study)

Fisher 2007

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Preschoolers in foster care

Study dates	Not reported
Duration of follow-up	12 months post baseline
Sources of funding	National Institute on Drug Abuse; National Institute of Mental Health, US Public Health Service
Inclusion criteria	Care situation Children new to foster care, reentering care, and moving between foster placements. To be eligible for the study, the current placement had to be expected to last for 3 or more months. Age 3 - 5 years old
Sample size	117
Split between study groups	MTFC-P = 57 Routine Foster Care = 60
Loss to follow-up	12 months post baseline
% Female	not reported for total sample
Mean age (SD)	not reported for total sample
Condition specific characteristics	non-white ethnicity 11% time spent in care On average, children had spent 171 days in foster care prior to baseline

Outcome measures	Health outcome 1 Morning salivary cortisol level: Monthly early morning and evening salivary cortisol samples were gathered on 2 consecutive days for 12 months (M1–M12). For foster children, M1 assessments occurred 3–5 weeks postplacement. Saliva collections occurred 30 min after the child awoke and before eating or drinking (AM) and 30 min before bedtime (PM). Following procedures described in Schwartz et al. (1998), caregivers were trained by research staff members to complete saliva collection at home. Health outcome 2 Evening salivary cortisol level: measured as above Health outcome 3 AM–PM Cortisol Change: The primary outcome measure was a difference score computed by subtracting the daily PM cortisol level from the daily AM cortisol level (AM–PM cortisol change). This provided a rough index of the diurnal cortisol activity.
Study arms	**Multidimensional Treatment Foster Care for preschoolers (MTFC-P) (N = 57)** MTFC-P was tailored to meet the developmental and social-emotional needs of foster preschoolers. The intervention was delivered via a team approach to the children, foster parents, and permanent placement resources (birthparent and adoptive relative/non-relative). Before receiving a foster child, each foster parent completed 12 hours of intensive training. After placement, foster parents worked with a foster parent consultant and received support and supervision through daily telephone contacts, weekly foster parent support group meetings, and 24-hour on-call staff availability. The foster parent consultant worked with the foster parent to maintain a positive, responsive, and consistent environment through the use of concrete encouragement for positive behavior and clear limit setting for problem behavior. The children received services from a behavior specialist working in preschool/daycare and home-based settings. Additionally, the children attend weekly therapeutic playgroup sessions designed to facilitate school readiness and in which behavioral, social, and developmental progress was monitored and addressed. The program staff was largely composed of clinicians with bachelor's and master's degrees and a licensed psychologist as the clinical supervisor. Group supervision occurred weekly, with consultation provided as needed. Whenever possible, a family therapist worked with birth parents or adoptive relative/nonrelative parents to familiarize them with the parenting skills used by the foster parents in the program. This helped to facilitate consistency between settings. Children typically received services for 9–12 months, including the period of transition to a permanent placement (or, if the child was in long-term foster care, until his/her behavior stabilized and the risk of placement disruption appeared to have been mitigated). Treatment fidelity for all MTFC-P components was monitored via progress notes and checklists completed by the clinical staff.

	Study type	Randomised controlled trial (RCT)
	Study location	USA
	Study setting	Preschoolers in foster care
	Study dates	Not reported
	Duration of follow-up	12 months post baseline
	Sources of funding	National Institute on Drug Abuse; National Institute of Mental Health, US Public Health Service
	Inclusion criteria	Care situation Children new to foster care, reentering care, and moving between foster placements. To be eligible for the study, the current placement had to be expected to last for 3 or more months. Age 3 - 5 years old
	Sample size	117
	Split between study groups	MTFC-P = 57 Routine Foster Care = 60
	Loss to follow-up	12 months post baseline
	% Female	50.9%

	Mean age (SD)	4.54 ± 0.86 years
	Condition specific characteristics	non-white ethnicity 17.5% time spent in care number of days in care prior to baseline: 204.40 ± 221.19
	Outcome measures	Health outcome 1 Morning salivary cortisol level at 1 month/6 months/12 months postbaseline: 0.44 SD 0.25/0.40 SD 0.21/0.49 SD 0.22. Beta coefficient showing the relationship between being in the RFC group and AM cortisol: 0.027 SE 0.030 Health outcome 2 Evening salivary cortisol level at 1 month/6 months/12 months postbaseline: 0.06 SD 0.11/0.06 SD 0.06/0.11 SD 0.19. Relationship between being in the routine foster care group and PM cortisol level: 0.637 SE 0.180 Health outcome 3 AM–PM Salivary Cortisol Change at 1 month/6 months/12 months postintervention: 0.38 SD 0.29/0.35 SD 0.23/0.38 SD 0.31. Beta coefficient showing the relationship between being in the routine foster care group compared to MTFC-P for AM-PM cortisol change over time was -0.010 SE 0.005 showing a greater "flattening" in cortisol in the RFC group over time.
	Routine Foster Care (N = 60) The RFC children received routine services in state foster homes, which commonly involved individual psychotherapy. Some RFC children also received developmental screening and, if found to be delayed, referrals for services. The birth families and relative/nonrelative adoptive families in the RFC condition typically received social service support, substance abuse treatment, mental health treatment, and/or parent training (not through the study affiliated center).	
	Study type	Randomised controlled trial (RCT)
	% Female	41.7%
	Mean age (SD)	4.34 ± 0.83 years

	Condition specific characteristics	non-white ethnicity 6.6% time spent in care number of days in care prior to baseline: 139.20 ± 141.03
	Outcome measures	Health outcome 1 Morning salivary cortisol level at 1 month/6 months/12 months postbaseline: 0.47 SD 0.27/0.43 SD 0.21/0.39 SD 0.27 Health outcome 2 Evening salivary cortisol level measured at 1 month/6 months/12 months postbaseline: 0.06 SD 0.09/0.12 SD 0.15/0.10 SD 0.15 Health outcome 3 AM–PM Cortisol Change 1 month/6 months/12 months postbaseline: 0.40 SD 0.25/0.31 SD 0.24/0.30 SD 0.34
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Some concerns (unclear if allocation concealment or method of randomisation) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low (modified intent to treat) **Domain 3. Bias due to missing outcome data** Some concerns (The total amount of missing data was not equally distributed across groups. The amount of missing AM–PM, AM, and PM data was highest for the RFC group. Missingness of cortisol data could be related to emotional problems and therefore related to cortisol levels. However, authors attempted to account for this using analystical techniques. In addition the amount of missing data was not very large (7%))	

	Domain 4. Bias in measurement of the outcome Low **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** Some concerns (Unclear how randomisation performed or if allocation concealment. 80% attrition across study follow up. The total amount of missing data was not equally distributed across groups. The amount of missing AM–PM, AM, and PM data was highest for the RFC group. Missingness of cortisol data could be related to emotional problems and therefore related to cortisol levels. However, authors attempted to account for this using analytical techniques. In addition the amount of missing data was not very large for cortisol sampling (7%)) **Overall Directness** (USA-based study)

Fisher 2011

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Preschoolers in foster care
Study dates	Not reported

Duration of follow-up	12 months
Sources of funding	National Institute on Drug Abuse; National Institute of Mental Health, US Public Health Service
Inclusion criteria	Care situation Children new to foster care, reentering care, and moving between foster placements. To be eligible for the study, the current placement had to be expected to last for 3 or more months. For this study a subsample of participants was used that included participants who experienced a placement change during the first 6 months following study entry and did not experience a subsequent placement change for at least 6 months after the first. Age 3 - 5 years old
Sample size	71
Split between study groups	36 MTFC-P children and 35 RFC children
Loss to follow-up	There was no further loss to follow up since this was a subanalysis of a larger randomised controlled trial (see Fisher 2007)
% Female	42.2%
Mean age (SD)	4.47 ± 0.77 years
Condition specific characteristics	non-white ethnicity 12.6%
Outcome measures	Health outcome 1 Postplacement morning to evening cortisol decrease: Monthly salivary cortisol samples were collected twice daily on 2 consecutive days. The initial assessments occurred 3–5 weeks after a placement change to allow children to adjust to their new foster homes. The first collection (AM) occurred at 30 min after the child awoke and before eating or drinking, a time when cortisol has been shown to peak in response to awakening (SchmidtReinwald et al., 1999). The second collection (PM) occurred at 30 min before bedtime. The caregivers were trained by research staff members to complete saliva collection at home following procedures described in Schwartz et al. (1998). For each child's monthly salivary cortisol samples, AM cortisol level and PM cortisol level were computed by averaging the two AM and two PM samples, respectively; the morning to-evening cortisol decrease (i.e., diurnal cortisol level decrease) was calculated by subtracting the PM cortisol level from the AM cortisol level. When examining the impact of placement changes, authors used the

	first 6 months of morning-to-evening cortisol decrease figures after each child's first placement. To ensure that they were not simply detecting individual differences in the set point of the HPA axis, they averaged the previous 3 months of morning-to-evening cortisol decrease figures prior to the placement change to establish a baseline value for each child. Authors averaged all available morning-to-evening cortisol decrease figures if less than 3 months of data were available. Then subtracted this baseline value from all morning-to-evening cortisol decrease values after the placement change: a zero value would indicate no change, a negative value would indicate a smaller decrease, and a positive value would indicate a larger decrease.
Study arms	**Multidimensional Treatment Foster Care for preschoolers (MTFC-P) (N = 36)** MTFC-P was tailored to meet the developmental and social-emotional needs of foster preschoolers. The intervention was delivered via a team approach to the children, foster parents, and permanent placement resources (birthparent and adoptive relative/non-relative). Before receiving a foster child, each foster parent completed 12 hours of intensive training. After placement, foster parents worked with a foster parent consultant and received support and supervision through daily telephone contacts, weekly foster parent support group meetings, and 24-hour on-call staff availability. The foster parent consultant worked with the foster parent to maintain a positive, responsive, and consistent environment through the use of concrete encouragement for positive behavior and clear limit setting for problem behavior. The children received services from a behavior specialist working in preschool/daycare and home-based settings. Additionally, the children attend weekly therapeutic playgroup sessions designed to facilitate school readiness and in which behavioral, social, and developmental progress was monitored and addressed. The program staff was largely composed of clinicians with bachelor's and master's degrees and a licensed psychologist as the clinical supervisor. Group supervision occurred weekly, with consultation provided as needed. Whenever possible, a family therapist worked with birth parents or adoptive relative/nonrelative parents to familiarize them with the parenting skills used by the foster parents in the program. This helped to facilitate consistency between settings. Children typically received services for 9–12 months, including the period of transition to a permanent placement (or, if the child was in long-term foster care, until his/her behavior stabilized and the risk of placement disruption appeared to have been mitigated). Treatment fidelity for all MTFC-P components was monitored via progress notes and checklists completed by the clinical staff.

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Preschoolers in foster care

	Study dates	Not reported
	Duration of follow-up	12 months
	Sources of funding	National Institute on Drug Abuse; National Institute of Mental Health, US Public Health Service
	Inclusion criteria	Care situation Children new to foster care, reentering care, and moving between foster placements. To be eligible for the study, the current placement had to be expected to last for 3 or more months. For this study a subsample of participants was used that included participants who experienced a placement change during the first 6 months following study entry and did not experience a subsequent placement change for at least 6 months after the first. Age 3 - 5 years old
	Sample size	71
	Split between study groups	36 MTFC-P children and 35 RFC children
	Loss to follow-up	There was no further loss to follow up since this was a subanalysis of a larger randomised controlled trial (see Fisher 2007)
	% Female	not reported for study arms
	Mean age (SD)	not reported for study arms
	Condition specific characteristics	Type of care Type of placement change: In the MTFC-P group, there were 11 foster placement failures, 17 reunifications with biological parents, and 8 adoptions. Other

		MTFC-P and RFC children did not differ in their preplacement morning-to-evening cortisol decrease values. (intercept 0.42 SE 0.20, p>0.05)
	Outcome measures	Health outcome 1 Postplacement morning to evening cortisol decrease: linear relationship between being in the intervention group and postplacement morning to evening cortisol decrease, adjusting for decrease pre-placement move: beta coefficient 0.40 SE 0.16
	Routine Foster Care (RFC) (N = 35) The RFC children received routine services in state foster homes, which commonly involved individual psychotherapy. Some RFC children also received developmental screening and, if found to be delayed, referrals for services. The birth families and relative/nonrelative adoptive families in the RFC condition typically received social service support, substance abuse treatment, mental health treatment, and/or parent training (not through the study affiliated center).	
	Study type	Randomised controlled trial (RCT)
	% Female	Not reported for study arms
	Mean age (SD)	not reported for study arms
	Condition specific characteristics	Type of care Type of placement change: In the RFC group, there were 13 foster placement failures, 15 reunifications with biological parents, and 7 adoptions
Risk of Bias	**Domain 1: Bias arising from the randomisation process** High (Unclear method of randomisation, unclear if allocation concealment, unclear if comparison groups remained similar at baseline for important characteristics because these were not reported. Study reports subsample from a larger randomised controlled trial (Fisher 2007)). **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low	

	(likely modified intention to treat) **Domain 3. Bias due to missing outcome data** **Some concerns** (In the original trial: The total amount of missing data was not equally distributed across groups. The amount of missing AM–PM, AM, and PM data was highest for the RFC group. Missingness of cortisol data could be related to emotional problems and therefore related to cortisol levels. However, authors attempted to account for this using analystical techniques. In addition the amount of missing data was not very large (7%). However, it is unclear how much missing data was present for this subsample). **Domain 4. Bias in measurement of the outcome** Low **Domain 5. Bias in selection of the reported result** Some concerns (Unclear if this subgroup analysis described in this paper was planned prior to unblinded outcome data were available for analysis). **Overall bias and Directness** High **Overall Directness** Indirectly applicable (USA-based study)

Geenen 2013

Study type	Randomised controlled trial (RCT)

Study location	USA
Study setting	Youth in Foster Care
Study dates	Not reported (published 2013)
Duration of follow-up	9 month follow up
Sources of funding	Funded by the Institute of Educational Sciences, U.S. Department of Education.
Inclusion criteria	Age In the freshman, sophomore, or junior year of high school Care situation In the state foster care system Educational status receiving special education services within an urban school district
Exclusion criteria	Care situation scheduled to move out of state Language Non-English speaking
Sample size	133
Split between study groups	63 in the TAKE CHARGE intervention group, 60 in the usual care group
Loss to follow-up	10 were lost to follow up in total, unclear how loss to follow up varied between intervention groups

% Female	46.3
Mean age (SD)	15.49 ± 2.21 years
Condition specific characteristics	At risk or victims of exploitation Physical abuse: 38.2%; Sexual abuse: 33.3%; Neglect: 27.6% Disabilities, speech or communication needs, or special education needs Intellectual disability: 8.1%; Learning disability: 26.8%; Speech disability: 14.6%; Physical disability: 1.6%; Autism: 3.25%; Non-white ethnicity 50.4% Care characteristics Non kinship: 82.1%; Kinship: 13.0%; group home: 4.9%; length of time in foster care (mean): 84.6 months Number of placement moves mean 7.1
Outcome measures	Educational outcome 1 Youth knowledge and engagement in educational planning: measured using The student, parent, and teacher versions of the Educational Planning Assessment Educational outcome 2 Postsecondary preparation: On the outcome survey, youth completed a checklist indicating activities they had performed in planning for college. In all, 10 postsecondary items included “talked with guidance counselor or teacher about going to college” and “visited colleges”. Item sums were calculated for each category. Educational outcome 3 Career development: Information regarding key activities youth had engaged in around career exploration and preparation for employment was also gathered on the outcome survey. 7 career items included “talked with family members about my career interests” and “job shadowed someone in my career area.” Item sums were calculated for each category. Educational outcome 4 Student self-attribution of accomplishments: To assess selfattribution of educational success, conceptualized as an essential element of self-determination, youth were asked to list all their educational accomplishments for the past 6 months and a total count was gathered at each time point. Agency outcome 1 Self-determination: Self-determination was assessed with the parent, student, and teacher versions of the AIR as well as by asking youth to describe their goals and accomplishments as respective indices of youths’ future directedness and positive self-attribution,

	Emotional and behaviour outcomes 1 Measured with the Teacher Report Form (TRF) and the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001), and Youth Self-Report YSR (Achenbach, 1991). These parallel measures include scales for withdrawn-depressed, anxious-depressed, delinquent, and aggressive behavior, as well as attention problems. Analyses focused on the Withdrawn-Depressed, Anxious-Depressed, and Somatic Complaints subscales. Educational outcome 5 Student identification of education goals: At each time point, youth were asked to list all of their educational goals for the upcoming year and a total count was taken, gauged to reflect students' self-directedness. Educational outcome 6 Hours spent doing homework
Study arms	**TAKE CHARGE intervention (N = 60)** Youth participated in two components of TAKE CHARGE: (a) Individualised coaching in applying self-determination skills to achieve their educational and related goals and to participate in educational planning meetings and (b) group mentoring, where the youth and near-peer foster care alumni who had completed high school and were working or in college gathered for information sharing and peer support. Mentors were recruited from college campuses, nominations from caseworkers, and study participants from earlier waves. To ensure fidelity, all coaches completed formal training and observation, and they attended weekly meetings where they discussed their work with youth and received ongoing support. Coaches also completed weekly log sheets where they documented the activities they engaged in and the time spent with each participant. The mean number of coaching sessions over an approximate 9-month period was 30.5 (SD = 7.8) with youth participating in an average of 32.97 (SD = 8.71) coaching hours over the duration of the intervention. Coaches and youth typically met weekly for 60 to 90 min; 13 was the minimum number of coaching hours and 55 was the maximum; youth availability accounted for much of the variation in coaching hours. Typically, one third of coaching time was didactic (M = 9.05, SD = 3.4) and two thirds experiential (M = 23.9, SD = 7.1). Overall fidelity for 79 coaching elements across all waves was 90.68%. Youth were invited to participate in three mentoring workshops, and they attended an average of 1.79 workshops. Workshop topics selected by youth included leading your education planning meeting, postsecondary education, careers, transportation, and relationships. Study type: Randomised controlled trial (RCT)

Study location	USA
Study setting	Youth in Foster Care
Study dates	Not reported (published 2013)
Duration of follow-up	9 month follow up
Sources of funding	Funded by the Institute of Educational Sciences, U.S. Department of Education.
Inclusion criteria	Age In the freshman, sophomore, or junior year of high school Care situation In the state foster care system Educational status receiving special education services within an urban school district
Sample size	133
Split between study groups	63 in the TAKE CHARGE intervention group, 60 in the usual care group
Loss to follow-up	10 were lost to follow up in total, unclear how loss to follow up varied between intervention groups
% Female	40.0

	Mean age (SD)	mean 15.79 years
	Condition specific characteristics	At risk or victims of exploitation Physical abuse: 45.0%; Sexual abuse: 26.7%; Neglect: 26.7% Disabilities, speech or communication needs, or special education needs Intellectual disability: 8.3%; Learning disability: 26.7%; Speech disability: 23.3%; Physical disability: 45.0%; Autism: 1.7% Non-white ethnicity 53.3% Care characteristics Non kinship: 85.0%; Kinship: 11.7%; group home: 4.9%; length of time in foster care (mean): 84.6 months Number of placement moves mean 7.9
	Outcome measures	Educational outcome 1 Educational Planning Assessment score (following intervention/9-month follow up): Student-reported: 26.10 ± 5.71/26.61 ± 6.99; Parent reported: 22.13 ± 7.31/22.62 ± 8.05; Teacher reported: 20.40 ± 7.95/20.88 ± 7.84 Educational outcome 2 Postsecondary preparation score: mean 2.53 ± 0.92/2.58 ± 0.94 Educational outcome 3 Career development mean score (postintervention/9-month follow up): 2.64 ± 0.97/2.18 ± 0.78 Educational outcome 4 Student self-attribution of accomplishments mean score (post-intervention/9-month follow up): 2.75 ± 1.44/2.31 ± 1.34 Agency outcome 1 AIR self-determination score (post-intervention/9-month follow up): 66.43 ± 8.90/65.76 ± 8.56 Emotional and behaviour outcomes 1 Youth Self Report Anxiety mean score (post-intervention/9-month follow up): 53.60 ± 5.11/54.09 ± 6.05; Child Behaviour Checklist anxiety: 55.33 ± 6.84/56.20 ± 6.94; Child Behaviour Checklist withdrawn score: 58.89 ± 7.04/58.23 ± 6.52; Child Behaviour Checklist somatic mean score: 57.84 ± 9.88/55.56 ± 6.52

		Educational outcome 5 Student identification of education goals score (postintervention/9-month follow up): 2.30 ± 1.23/1.90 ± 1.03 **Educational outcome 6** Hours spent doing homework mean (post intervention/9-month follow up): 1.32 ± 1.27/1.08 ± 1.13
	Usual Care (N = 60) Youth participating in the control group received typical educational services (business as usual), including general and special education classes, related services, interaction with special education case managers, individualised educational planning, and extracurricular activities.	
	Outcome measures	**Educational outcome 1** Educational Planning Assessment score (following intervention/9-month follow up): Student-reported: 23.65 ± 7.85/23.93 ± 9.15; Parent reported: 19.32 ± 12.89/19.40 ± 8.14; Teacher reported: 17.89 ± 8.05/18.11 ± 8.90 **Educational outcome 2** Postsecondary preparation score (postintervention/9-month follow up): mean 1.52 ± 0.40/2.56 ± 0.89 **Educational outcome 3** Career development mean score (postintervention/9-month follow up): 2.04 ± 0.71/2.01 ± 0.69 **Educational outcome 4** Student self-attribution of accomplishments mean score (post-intervention/9-month follow up): 1.95 ± 1.20/2.07 ± 1.23 **Agency outcome 1** Parent reported AIR self-determination score (post-intervention/9-month follow up): 63.52 ± 8.94/62.96 ± 8.81 **Emotional and behaviour outcomes 1** Youth Self Report Anxiety mean score (post-intervention/9-month follow up): 56.19 ± 6.61/54.61 ± 5.79; Child Behaviour Checklist anxiety: 60.43 ± 8.60/59.00 ± 8.58; Child Behaviour Checklist withdrawn score: 62.36 ± 9.60/61.19 ± 9.08; Child Behaviour Checklist somatic mean score: 60.70 ± 9.39/60.00 ± 9.53 **Educational outcome 5** Student identification of education goals score (postintervention/9-month follow up): 2.05 ± 1.14/1.92 ± 1.05

	Educational outcome 6 Hours spent doing homework mean (post intervention/9-month follow up): 0.81 ± 1.11/0.94 ± 0.96
Risk of bias	**Domain 1: Bias arising from the randomisation process** High (Some considerable differences between comparison groups for length of time in foster care, speech and language disability, autism, and emotional/behavioural needs) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Some concerns (unclear if any deviations from intended interventions; unclear if intention to treat analysis used (but most likely)) **Domain 3. Bias due to missing outcome data** High (Just over 10% with missing data post randomisation; unclear whether any further missing outcome data; unclear reasons for drop out; unclear how drop out varied between groups; It is possible that missingness of data is related to outcomes.) **Domain 4. Bias in measurement of the outcome** Some concerns (It is unclear how assessments were performed (by whom). Unclear if facilitators were aware of intervention status of participants. Measurements used are often crude indicators of the phenomenon of interest.) **Domain 5. Bias in selection of the reported result** High

	(unclear that analysis was conducted according to a pre-specified protocol. Data not provided for certain non-significant results. Evidence of multiple analyses used for different outcomes) **Overall bias and Directness** **Risk of bias judgement** High **Overall Directness** This question has not yet been answered.

Geenen 2015

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Children in foster care
Study dates	youth aging out of foster care in 2012
Duration of follow-up	6 month follow up post-intervention
Sources of funding	The National Institute of Disability and Rehabilitation Research, United States Department of Education, and the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, United States Department of Health and Human Services.

Inclusion criteria	Educational status in high school or a GED program and 1 or 2 years away from completion of secondary education. youth had to say they were not opposed to the idea of exploring college or vocational school, and they had not yet applied. Care situation in the guardianship of the state foster care system Other living within the project's geographic area Diagnosed health problem identified as experiencing a significant mental health condition, defined by receiving special education services for an emotional disability, taking psychotropic medication, living in therapeutic settings (such as treatment foster care), or receiving mental health counseling.
Sample size	67
Split between study groups	36 intervention group, 31 control group
Loss to follow-up	By 6 months, 8 participants were lost to follow up. This included 2 participants from the intervention group and 6 participants from the control group.
% Female	51.6%
Mean age (SD)	16.76 ± 0.62
Condition specific characteristics	Non-white ethnicity 52.3% Type of care Non-relative foster care: 64.2%; Relative foster care: 26.8%; Group home/residential treatment: 7.5%; Number of placement moves mean 2.77 moves

	Participants at risk or victims of exploitation Reason for entering foster care (maltreatment): physical: 51.5%; sexual: 19.7%; neglect: 68.2%; Parental substance abuse: 34.8% Special educational needs receiving special education services: 35.8% Mental health needs taking mental health medication: 39.4%; receiving mental health services: 68.7%; receiving developmental disability services: 10.4%
Outcome measures	Agency outcome 1 AIR self-determination scale: scales were previously used and validated. No further information provided. Quality of Life Quality of life questionnaire: scales were previously used in research (cited) and validated. No further information provided. Education outcomes 1 Assessing barriers to education. scales were previously used in research (cited) and validated. No further information provided. Employment outcome 1 Career decision self-efficacy scale. scales were previously used in research (cited) and validated. No further information provided. Agency outcome 2 Arc's self-determination scale: scales were previously used in research (cited) and validated. No further information provided. Agency outcome 3 Youth efficacy/empowerment scale. scales were previously used in research (cited) and validated. No further information provided. Agency outcome 4 Transition planning assessment: scales were previously used in research (cited) and validated. No further information provided. Education outcome 2 Post-secondary preparation scale. A post-secondary preparation questionnaire, successfully used in a previous study of the educational outcomes of self-determination enhancement, was expanded to include 24 key activities associated with preparing for and applying to college (e.g., completing FAFSA, touring a college campus, submitting a college application, etc.). scales were previously used in research (cited) and validated. No further information provided. Emotional and mental health outcome 1 Hopelessness scale for children: scales were previously used in research (cited) and validated. No further information provided. Emotional and mental health outcomes 2

	Mental health recovery measure: scales were previously used in research (cited) and validated. No further information provided. Education outcome 3 High school completion. Education outcome 4 Participating in post-secondary education Employment outcome 2 Taking part in paid employment
Study arms	**Better Futures (N = 36)** Intervention group youth participated in three interrelated components over approximately 10 months: (1) a 4-day, 3-night Summer Institute on a university campus; (2) individual, bimonthly peer coaching; and (3) four mentoring workshops. Summer institute: Youth lived in the dorms and participated in a variety of experiences, including informational sessions, tours of both the university and a nearby community college campus, and facilitated discussions of higher education preparation, mental health, accommodation needs, and transition resources, with near peers who had lived experience with foster care and mental health, high school and college or vocational education representatives, and other professionals. Evening social activities more informally connected youth and near peers. The Summer Institute was facilitated by peer coaches, other project staff, and two young adults from the FosterClub, a national leadership group for young people in foster care. Peer coaching: peer coaching was provided by young adults (under the age of 28), who were in higher education and had shared experiences around foster care and/or mental health challenges. Peer coaches were recruited from the university and community college, and they received about 40 h of initial training in a variety of areas, including foster care, mental health, secondary education, and postsecondary issues, support strategies, and resources related to accessing higher education, self-determination promotion, strategic self-disclosure, and intervention and fidelity protocols. Coaches participated in weekly individual and group supervision meetings facilitated by the intervention manager. Commencing just prior to the Summer Institute, individualised one-on-one peer coaching was provided to youth approximately twice a month for 9 months and was focused on supporting youth in working toward their goals and managing barriers. Youth were supported to identify postsecondary goals and strategies and supports to reach goals, to share their goals with others and enlist support, to problem-solve solutions to barriers, to carry out activities needed to achieve goals, and to identify and apply strategies for self-care and wellness. Exposure to 11 targeted experiential activities and 11 self-determination skills was specified in the intervention protocol (e.g., visit a college or vocational program, review high school transcript, practice in

	negotiation and problem-solving). Peer coaches met with youth in their schools, neighborhoods, and other convenient places. Mentoring workshops: five workshops were organized for each cohort by peer coaches and other project staff. Youth were asked to attend at least four of the workshops, in an effort to provide them with some scheduling flexibility. Mentoring workshops brought together youth and their coaches for discussions and experiences that were guided by speakers with expertise around child welfare, mental health, and higher education. Youth selected the topics for the workshops, which typically included an overview of the college application process, review of the senior timeline for college application activities, mental health and self-care, and transition services and resources. All of the workshops included foster care alumni and/or professionals who presented information on a given workshop topic and facilitated youth in an activity (e.g., Scholarship and College Admission with an essay writing activity), as well as providing opportunities for informal networking during a fun activity (e.g., food and bowling).

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Children in foster care
Study dates	youth aging out of foster care in 2012
Duration of follow-up	6 month follow up post-intervention
Sources of funding	The National Institute of Disability and Rehabilitation Research, United States Department of Education, and the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, United States Department of Health and Human Services.
Sample size	67

	Split between study groups	36 intervention group, 31 control group
	Loss to follow-up	By 6 months, 8 participants were lost to follow up. This included 2 participants from the intervention group and 6 participants from the control group.
	% Female	52.8%
	Mean age (SD)	16.78 years
	Condition specific characteristics	Non-white ethnicity 56.6% Type of care Non-relative foster care: 63.9%; Relative foster care: 27.7%; Group home/residential treatment: 8.3% Number of placement moves mean 2.82 moves Participants at risk or victims of exploitation Reason for entering foster care (maltreatment): physical: 54.3%; sexual: 25.7%; neglect: 68.5%; Parental substance abuse: 31.4% Special educational needs receiving special education services: 30.5% Mental health needs taking mental health medication: 48.6%; receiving mental health services: 72.2%; receiving developmental disability services: 8.3%
	Outcome measures	Agency outcome 1 AIR self-determination scale, mean ± SD: post-intervention: 99.42 ± 11.87; 6 months follow up: 103.97 ± 11.04 Quality of Life Quality of life questionnaire, mean ± SD: post-intervention: 87.10 ± 14.90; 6-months follow up: post-intervention: 93.86 ± 10.86

		Education outcomes 1 Assessing barriers to education: post-intervention: 62.13 ± 17.83; 6-month follow up: 55.09 ± 12.10 **Employment outcome 1** Career decision self-efficacy scale, mean ± SD: post-intervention: 4.21 ± 0.69; 6-months follow up: 4.44 ± 0.51 **Agency outcome 2** Arc's self-determination scale, mean ± SD: post-intervention: 113.09 ± 18.73; 6-months follow up: 121.80 ± 16.35 **Agency outcome 3** Youth efficacy/empowerment scale, mean ± SD: post-intervention: 3.62 ± 0.95; 6-months follow up: 4.07 ± 0.56 **Agency outcome 4** Transition planning assessment, mean ± SD: post-intervention: 2.85 ± 0.73; 6-months follow up: 3.01 ± 0.68 **Education outcome 2** Post-secondary preparation scale, mean ± SD: post-intervention: 17.18 ± 4.95; 6-month follow up 19.05 ± 4.59 **Emotional and mental health outcome 1** Hopelessness scale for children, mean ± SD: post-intervention: 26.46 ± 7.83; 6-months follow up: 26.50 ± 6.07 **Emotional and mental health outcomes 2** Mental health recovery measure, mean ± SD: post-intervention: 94.03 ± 16.34; 6-month follow up: 96.56 ± 19.86 **Education outcome 3** High school completion: 6-month follow up: 65% of intervention group youth graduated high school, 29% were still attending high school, and 6% had dropped out. **Education outcome 4** Participating in post-secondary education at 6-months: 64% of intervention group. Among intervention youth enrolled in higher education, more than half (59%) were in community college, 14% were attending a vocational school, and 27% were in a 4-year program. **Employment outcome 2** Taking part in paid employment at 6-months: 11 (32%)
	Comparison group (N = 31)	

	Youth participating in the control group received typical services (community as usual), including supports available to all youth (e.g., a guidance counselor at school) and specific to youth in foster care (e.g., Independent Living Program) and youth with mental health conditions (e.g., therapy).	
	Condition specific characteristics	Non-white ethnicity 61.3% Type of care Non-relative foster care: 64.5%; Relative foster care: 25.8%; Group home/residential treatment: 6.5%; Number of placement moves mean 2.73 moves Participants at risk or victims of exploitation Reason for entering foster care (maltreatment): physical: 48.4%; sexual: 12.9%; neglect: 67.7%; Parental substance abuse: 38.7% Special educational needs receiving special education services: 41.9% Mental health needs taking mental health medication: 29.0%; receiving mental health services: 64.5%; receiving developmental disability services: 12.9%
	Outcome measures	Agency outcome 1 AIR self-determination scale, mean ± SD: post-intervention 87.87 ± 19.31; 6-month follow up: 89.99 ± 17.92 Quality of Life Quality of life questionnaire, mean ± SD: post-intervention: 84.68 ± 13.57; 6-month follow up: 85.40 ± 10.72 Education outcomes 1 Assessing barriers to education, mean ± SD: post-intervention: 72.23 ± 22.54; 6-month follow up: 83.66 ± 22.96 Employment outcome 1 Career decision self-efficacy scale, mean ± SD: post-intervention: 3.51 ± 0.79; 6-month follow up: 3.48 ± 0.76 Agency outcome 2 Arc's self-determination scale, mean ± SD: post-intervention: 98.75 ± 21.90 ; 6-month follow up: 99.97 ± 17.45

	Agency outcome 3 Youth efficacy/empowerment scale, mean ± SD: post-intervention: 3.50 ± 0.65; 6-months follow up: 3.34 ± 0.54 Agency outcome 4 Transition planning assessment, mean ± SD: post-intervention: 2.35 ± 0.69; 6-month follow up: 2.20 ± 0.69 Education outcome 2 Post-secondary preparation scale, mean ± SD: post-intervention: 10.42 ± 6.50; 6-month follow up 10.70 ± 6.07 Emotional and mental health outcome 1 Hopelessness scale for children, mean ± SD: post-intervention: 32.24 ± 7.25; 6-months follow up: 32.70 ± 7.21 Emotional and mental health outcomes 2 Mental health recovery measure, mean ± SD: post-intervention: 86.52 ± 19.18; 6-month follow up: 87.65 ± 14.75 Education outcome 3 High school completion: 6-month follow up: 52% of control youth had completed high school (graduation or GED), 36% were still attending high school, and 12% dropped out. Education outcome 4 Participating in post-secondary education at 6-months: 24% of the control group. All control group youth enrolled in post-secondary education were in community college except one youth who was attending a 4-year university. Employment outcome 2 Taking part in paid employment at 6-months: 9 (36%)
Risk of bias	**Domain 1: Bias arising from the randomisation process** Some concerns **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Some concerns (Unclear approach to analysis e.g. whether participants were excluded due to not receiving intervention as planned (per-protocol analysis)) **Domain 3. Bias due to missing outcome data**

	High (Missing data reported for certain scales, but amount of missing data unclear or how this varied between sclaes/intervention groups) **Domain 4. Bias in measurement of the outcome** Some concerns (Scales not described in detail and insufficient information on assessment process (e.g. who assessors were and whether blinded)) **Domain 5. Bias in selection of the reported result** Some concerns (Unclear methods and no protocol cited) **Overall bias and Directness** High **Overall Directness** This question has not yet been answered.

Graham 2012

Study type	Randomised controlled trial (RCT) Subset of a larger randomised controlled trial
Study location	USA
Study setting	Preschoolers in foster care (two years later when preschooler who receieved the intervention are currently in school)
Study dates	Not reported

Duration of follow-up	2 year follow up (from initial trial)
Sources of funding	National Institute on Drug Abuse; National Institute of Mental Health, US Public Health Service
Inclusion criteria	Care situation Children new to foster care, reentering care, and moving between foster placements. To be eligible for the study, the current placement had to be expected to last for 3 or more months. Age 3- 6 years old
Sample size	16
Split between study groups	MTFC - P = 9 RFC = 7
Loss to follow-up	67 participants were elligible from the original trial. 27 of these did not take part therefore loss to follow up was 24 participants (35.8%). However loss to follow up was likely to be even greater at an inidividual arm level since many of the participating number were from a community control group of little interest to the current review.
% Female	43.7%
Mean age (SD)	73.26 ± 10.90 months
Condition specific characteristics	non-white ethnicity 19%
Outcome measures	Health outcome 1 Mean saliva cortisol 1 week before the start of school: morning, afternoon, and evening recordings. Caregivers were trained by study staff to collect saliva samples from their children over the course of the day at three time points: 1 week before the start of school (on 2 consecutive days), on the 1st day of school, and on the 5th day of school. Consistent with

	previous studies examining diurnal cortisol slope in response to the start of school (Bruce et al., 2002; Davis et al., 1999), these collections occurred thrice daily: morning (30 min after waking), afternoon (4:00 p.m.), and evening (30 min before bedtime). Procedures for saliva collection and cortisol assaying for this sample are detailed in Fisher et al. (2007). Of the 444 possible cortisol samples for all children across all days, 5 samples were missing and 2 samples were excluded due to collection outside of the 30 min sampling window. The cortisol values were highly skewed and thus were log-transformed to normalize the distributions. The slope values for each child on each day were then calculated by regressing cortisol values for a given day on the sampling times. The cortisol values for the 2 days in the week before school were averaged. Health outcome 2 Mean salivary cortisol on the 1st day of school: morning; afternoon; and evening Health outcome 3 Mean salivary cortisol on the 5th day of school: morning; afternoon; and evening
Study arms	**Multidimensional Treatment Foster Care for preschoolers (MTFC-P) (N = 9)** MTFC-P was tailored to meet the developmental and social-emotional needs of foster preschoolers. The intervention was delivered via a team approach to the children, foster parents, and permanent placement resources (birthparent and adoptive relative/non-relative). Before receiving a foster child, each foster parent completed 12 hours of intensive training. After placement, foster parents worked with a foster parent consultant and received support and supervision through daily telephone contacts, weekly foster parent support group meetings, and 24-hour on-call staff availability. The foster parent consultant worked with the foster parent to maintain a positive, responsive, and consistent environment through the use of concrete encouragement for positive behavior and clear limit setting for problem behavior. The children received services from a behavior specialist working in preschool/daycare and home-based settings. Additionally, the children attend weekly therapeutic playgroup sessions designed to facilitate school readiness and in which behavioral, social, and developmental progress was monitored and addressed. The program staff was largely composed of clinicians with bachelor's and master's degrees and a licensed psychologist as the clinical supervisor. Group supervision occurred weekly, with consultation provided as needed. Whenever possible, a family therapist worked with birth parents or adoptive relative/nonrelative parents to familiarize them with the parenting skills used by the foster parents in the program. This helped to facilitate consistency between settings. Children typically received services for 9–12 months, including the period of transition to a permanent placement (or, if the child was in long-term foster care, until his/her behavior stabilized and the risk of placement disruption appeared to have been mitigated). Treatment fidelity for all MTFC-P components was monitored via progress notes and checklists completed by the clinical staff.

	% Female	66.6%
	Outcome measures	Health outcome 1 Mean saliva cortisol 1 week before the start of school: morning: 0.60 SD 0.30; afternoon: 0.12 SD 0.07; and evening recordings: 0.08 SD 0.12. Health outcome 2 Mean salivary cortisol on the 1st day of school: morning 0.58 SD 0.26; afternoon 0.09 SD 0.07; and evening 0.03 SD 0.01 Health outcome 3 Mean salivary cortisol on the 5th day of school: morning 0.47 SD 0.30; afternoon 0.10 SD 0.05; and evening 0.03 SD 0.01
	Routine Foster Care (N = 7) The RFC children received routine services in state foster homes, which commonly involved individual psychotherapy. Some RFC children also received developmental screening and, if found to be delayed, referrals for services. The birth families and relative/nonrelative adoptive families in the RFC condition typically received social service support, substance abuse treatment, mental health treatment, and/or parent training (not through the study affiliated center).	
	Study type	Randomised controlled trial (RCT) Subset of a larger randomised controlled trial
	Study location	USA
	Study setting	Preschoolers in foster care (two years later when preschooler who receieved the intervention are currently in school)
	Study dates	Not reported
	Duration of follow-up	2 year follow up (from initial trial)

	Sources of funding	National Institute on Drug Abuse; National Institute of Mental Health, US Public Health Service
	Inclusion criteria	Care situation Children new to foster care, reentering care, and moving between foster placements. To be eligible for the study, the current placement had to be expected to last for 3 or more months. Age 3- 6 years old
	Sample size	16
	Split between study groups	MTFC - P = 9 RFC = 7
	Loss to follow-up	67 participants were elligible from the original trial. 27 of these did not take part therefore loss to follow up was 24 participants (35.8%). However loss to follow up was likely to be even greater at an inidividual arm level since many of the participating number were from a community control group of little interest to the current review.
	% Female	14.3%
	Mean age (SD)	73.26 ± 10.90 months
	Outcome measures	Health outcome 1 Mean saliva cortisol 1 week before the start of school: morning 0.41 SD 0.19; afternoon 0.10 SD 0.04; and evening 0.11 SD 0.11. Health outcome 2 Mean salivary cortisol on the 1st day of school: morning 0.53 SD 0.32; afternoon 0.12 SD 0.12; and evening 0.07 SD 0.07 Health outcome 3 Mean salivary cortisol on the 5th day of school: morning 0.70 SD 0.49; afternoon 0.14 SD 0.18; and evening 0.03 SD 0.01

Risk of Bias	**Domain 1: Bias arising from the randomisation process** High (It is quite likely that randomisation was broken since there were significant differences between groups for gender. This study describes a subset of a prior randomised controlled trial, however this study were unable to recruit at least 30% of those from the original trial.) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Some concerns (Unclear whether there were deviations for these participants, though this is unlikely in the larger trial.) **Domain 3. Bias due to missing outcome data** Some concerns (A large proportion of those from the original trial were missing for this study. It is possible that missingness is related to study outcomes.) **Domain 4. Bias in measurement of the outcome** Low **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** High (Trial was from a subset of a larger randomised controlled trial. However, this study failed to recruit many eligible participants from the original trial. Since comparison groups differed by gender it is likely that randomisation was broken.) **Overall Directness**

	Indirectly applicable (USA-based study)

Graham 2018

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Foster care. KITS intervention took place in centre- or school-based classrooms.
Study dates	Not reported (earliest identified study published 2012)
Duration of follow-up	on baseline and the first and fifth days of school
Sources of funding	National Institute on Drug Abuse
Inclusion criteria	Care situation Nonkinship or kinship foster care at time of intervention Language English speaking Other not involved with another treatment protocol closely related to the KITS intervention
Sample size	219
Split between study groups	113 were assigned to the KITS intervention, 106 were assigned to FCC

Loss to follow-up	11 in the KITS intervention, 16 in the FCC group
% Female	not reported for the total study population
Mean age (SD)	not reported for the total study population
Outcome measures	Health outcome 1 Salivary cortisol: Caregivers collected saliva samples from their children on three consecutive days prior to the intervention (baseline) and on the first and fifth days of school. Consistent with previous studies examining diurnal cortisol slope in response to the start of school (Bruce et al., 2002; Davis, Donzella, Krueger, & Gunnar, 1999), these collections occurred thrice daily: morning (30 min after waking), afternoon (4:00 p.m.), and evening (30 min before bedtime). School readiness 1 Children's school adjustment in the autumn of kindergarten: Teachers provided ratings of children’s school adjustment in the fall of kindergarten on the academic performance, working hard, learning, and behaving appropriately subscales of the Child Behavior Checklist Teacher Report Form (Achenbach, 1991).
Study arms	**Kids In Transition to School (KITS) programme (N = 102)** The KITS intervention occurs during the 2 months of summer prior to kindergarten entry and the first 2 months of kindergarten in the fall. It consists of two primary components: child school readiness groups and caregiver groups. The 24-session school readiness groups for the children (2 h, twice weekly in the summer, 16 sessions; 2 h, once weekly in the autumn, 8 sessions) focus on promoting early literacy, prosocial, and self-regulatory skills. The caregiver groups meet for 8 sessions total, every other week during the summer and autumn (2 h), and focus on effective parenting techniques as well as promoting caregiver involvement in early literacy and school. Caregiver group meetings coincide with the children's school readiness group meeting times. The KITS school readiness group sessions are held in center- or school-based classrooms and have a highly structured, consistent routine similar to that of a typical kindergarten classroom. The manualized curriculum covers three critical skill areas: (1) self-regulatory skills (e.g., handling frustration and disappointment, paying attention, following multistep directions, and making appropriate transitions); (2) prosocial skills (e.g., reciprocal social interaction, social problemsolving, and emotion recognition); and (3) early literacy skills (e.g., letter names, phonological awareness, conventions of print, and comprehension). % Female: 48%

	Mean age (SD)	5.26 ± 0.33 years
	Outcome measures	Health outcome 1 Salivary cortisol (diurnal cortisol slope on the first day of school): mean difference: -0.274 SD 0.044. Standardised coefficient showing the relationship between intervention status and 1st day of school cortisol slope: -0.03 (P<0.05). Data for the fifth dday of school was not reported but was reported to be non-significant. School readiness 1 Children's school adjustment in the autumn of kindergarten (CBCL-TRF): Standardised coefficient showing the relationship between intervention status and teacher reported school adjustment in the autumn of kindergarten: -0.05 (P>0.05)

Foster Care as Usual (N = 90)
Children in this group received services commonly offered by the child welfare system. These could include individual child psychotherapy, participation in Head Start or another early childhood education program, and services such as speech therapy. No attempt was made to influence the type or amount of services received by children or their families in either the comparison or the KITS groups.

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Foster care. KITS intervention took place in centre- or school-based classrooms.
Study dates	Not reported (earliest identified study published 2012)
Duration of follow-up	on baseline and the first and fifth days of school
Sources of funding	National Institute on Drug Abuse

<table>
<tr><td></td><td>
<table>
<tr><td>Inclusion criteria</td><td>Care situation
Nonkinship or kinship foster care at time of intervention

Language
English speaking

Other
not involved with another treatment protocol closely related to the KITS intervention</td></tr>
<tr><td>Sample size</td><td>219</td></tr>
<tr><td>Split between study groups</td><td>113 were assigned to the KITS intervention, 106 were assigned to FCC</td></tr>
<tr><td>Loss to follow-up</td><td>11 in the KITS intervention, 16 in the FCC group</td></tr>
<tr><td>% Female</td><td>54%</td></tr>
<tr><td>Mean age (SD)</td><td>5.25 ± 0.35 years</td></tr>
<tr><td>Outcome measures</td><td>Health outcome 1
Salivary cortisol (diurnal cortisol slope on the first day of school): mean difference: -0.241 SD 0.099</td></tr>
</table>
</td></tr>
<tr><td>Risk of bias</td><td>Domain 1: Bias arising from the randomisation process

Some concerns

(Unclear how randomisation was performed and unclear if allocation concealment)

Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)

Some concerns</td></tr>
</table>

	(insufficient information about adherence to interventions) **Domain 3. Bias due to missing outcome data** Some concerns (There were significant amounts of missing data (approximately 20- 40% across outcomes). Evidence was presented suggesting that data was missing at random.) **Domain 4. Bias in measurement of the outcome** Some concerns (Unclear blinding procedures, one of the observed outcomes was subjective (teacher report)) **Domain 5. Bias in selection of the reported result** Some concerns (Insufficient information about study methods and no cited protocol. No results were presented for day 5 follow up (other than to say that they were non-significant)) **Overall bias and Directness** High **Overall Directness** Indirectly applicable (USA-based study)

Green 2014/Sinclair 2016

Study type	Randomised controlled trial (RCT)
Study location	UK England
Study setting	Looked after young people (on a placement at risk of breakdown)
Study dates	June 2005 to December 2008
Duration of follow-up	12 months
Sources of funding	The project was funded by a grant from the UK Department for Children, Schools and Families to the Institute of Psychiatry (reference: ACLBMC). It was sponsored by the University of Manchester.
Inclusion criteria	Age aged 10-17 years Care situation in a placement that was unstable, at risk of breakdown or not meeting their assessed needs, or at risk of custody or secure care Emotional or behavioral disorders showing complex or severe emotional difficulties and/or challenging behaviour
Exclusion criteria	Special educational needs severe intellectual difficulties (referred to as learning disabilities by UK health services, this was indexed by specialist school placement) Medical health problem psychotic illness from medical records.
Sample size	34

Split between study groups	20 randomised to MTFC-A, 14 randomised to usual care
Loss to follow-up	3 lost to follow up in the MTFC-A group, 2 in the usual care group
% Female	Not reported for total population
Mean age (SD)	Not reported for total population
Outcome measures	Global health outcome 1 Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA): Sources included structured interviews with the young person and carers, the standard carer-rated Child Behaviour Checklist (CBCL) and self-rated Youth Self Report (YSR),10 along with collated reports and records directly accessed from education, health and social services. This information was integrated, transcribed, fully anonymised and then located within each relevant HOTN domain before being rated. A second researcher, masked to all other case data including the first rating, independently rated this anonymised information within each domain. Global health outcome 2 Children's Global Assessment Scale (CGAS). Sources included structured interviews with the young person and carers, the standard carer-rated Child Behaviour Checklist (CBCL) and self-rated Youth Self Report (YSR),10 along with collated reports and records directly accessed from education, health and social services. This information was integrated, transcribed, fully anonymised and then located within each relevant CGAS domain before being rated. A second researcher, masked to all other case data including the first rating, independently rated this anonymised information within each domain. Educational outcome 1 Scholastic/language skills. Education outcomes were assessed using masked ratings on the two education-related HoNOSCA domains (scholastic/language skills and education attendance). Educational outcome 2 School attendance. Education outcomes were assessed using masked ratings on the two education-related HoNOSCA domains (scholastic/language skills and education attendance). Criminal outcome 1 Offending at follow up. Data on specific incidents of offending (reprimand, caution or charged with offence) during the previous 6 months were gathered from the social worker at baseline and from carer and social worker at end-point covering the previous 3 months.
Study arms	**Multidimensional treatment foster care for adolescents (MTFC-A) (N = 20)**

	In MTFC-A, specialist foster parents receive training and ongoing support and supervision in an intensive social learning approach pioneered at the Oregon Social Learning Center. Attention is paid to the mental health of foster children through the provision of psychiatry and psychology input, including individual and family therapy, social skills training and support with education. The aim is for a short-term intensive placement, of around 9 months, followed by a short period of aftercare. Key elements include: the provision of a consistent reinforcing environment in which young people are mentored and encouraged; a clear structure, with clearly specified boundaries to behaviour and specified consequences that can be delivered in a teaching-oriented manner; close supervision of young people's activities and whereabouts at all times; diversion from associations with antisocial peers and help to develop positive social skills that will help young people form relationships with more positive peers. Behaviour is closely monitored and positive behaviours are reinforced in a concrete manner using a system of points and levels; moving during the course of the programme from early restrictions through a series of 'levels,' each of which brings increased privileges and enhanced incentives. Specialist foster carers are paid a full-time salary, provided with continuously available intensive support, have daily telephone interviews with MTFC-A staff for support and to complete a Parent Daily Report (PDR), a checklist enabling the team to monitor intervention adherence, and identify problems, progress and carer stress. Foster carers have weekly face-to-face group meetings with the intervention team. Participating intervention teams received initial training from the UK national implementation group and the programme developers in the USA to prespecified levels of fidelity. Following this, ongoing fidelity to the model throughout the programme was monitored through weekly supervision telephone calls with the programme developers in the USA, including evaluation of individual PDR data. In each local team there were two additions to the US model: (a) an education worker; and (b) a part-time programme manager to liaise with the Social Services department.

% Female	Not reported for RCT sample
Mean age (SD)	Not reported for RCT sample
Outcome measures	Global health outcome 1 Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) at 12 months: mean 14.04 ± 5.57. Adjusted mean difference between MTFC-A and usual care at follow up: -1.04 (-6.21 to 4.13). Adjusted for baseline score.

	Global health outcome 2 Children's Global Assessment Scale (CGAS) at 12 month follow up: mean 56.00 ± 10.06. Adjusted mean difference between MTFC-A and usual care at 12 months: 1.30 (-7.14 to 9.74). Adjusted for baseline score. **Educational outcome 1** Scholastic/language skills. Odds of higher follow up score in the MTFC compared to usual care intervention group: OR 0.6 (95%CI 0.15 to 2.4) **Educational outcome 2** School attendance. Odds of higher school attendance score in the MTFC group: 2.5 (95%CI 0.48 to 13.1) **Criminal outcome 1** Number offending at follow up: 7. adjusted odds of offending in MTFC compared to usual care: aOR 1.24 (95%CI 0.22 to 7.38). Odds ratio adjusted for baseline offending age, gender, baseline offending and antisocial behaviour with inverse probability weighting by propensity score.

Usual care (N = 14)

Usual care consisted of care placements routinely in use in local authorities at the time. These included existing (non-MTFC-A) family foster care, residential care, residential schools and other placements. Details of the use of these placements and of other mental health services were gathered at carer interview.

% Female	Not reported for RCT population
Mean age (SD)	Not reported for RCT population
Outcome measures	**Global health outcome 1** Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA) at 12 months follow up: mean score 14.93 ± 7.99 **Global health outcome 2** Children's Global Assessment Scale (CGAS) at 12 months follow up: mean score 55.25 ± 12.56 **Criminal outcome 1** Participants offending at follow up: 4

Risk of bias	**Domain 1: Bias arising from the randomisation process** Low **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Some concerns (Unclear if/why participants did not receive allocated intervention; Significant deviations apparent since 8/20 in the treatment group did not receive their interventions.) **Domain 3. Bias due to missing outcome data** High (In the intervention group 15-20% had missing data; it was also unclear how much other data was missing since some outcomes were imputed; Unclear if appropriate imputation methods used; reasons for missing data not given; Missingness of data may well be related to the result of the outcomes reported.) **Domain 4. Bias in measurement of the outcome** Low (However, outcomes were triangulated from multiple sources. Assessors were masked to treatment group.) **Domain 5. Bias in selection of the reported result** High **Overall bias and Directness** **Risk of bias judgement** High **Overall Directness**

	This question has not yet been answered.

Greeson 2017

Study type	Randomised controlled trial (RCT) Mixed methods
Study location	USA
Study setting	Foster youth leaving care
Study dates	September 2014 to September 2015
Duration of follow-up	Postintervention
Sources of funding	Administration on Children, Youth & Families, U.S. Department of Health and Human Services
Inclusion criteria	Age aged 18 - 20.5 years old Care situation taking part in an Achieving Independence Center; presently in out-of-home care through the local DHS; goal for permanency)
Sample size	24
Split between study groups	Intervention group = 12

	Control group = 12
Loss to follow-up	Intervention group = 2 Control group = 5
% Female	50%
Mean age (SD)	18 years old
Condition specific characteristics	Non-white ethnicity 100% were african-americans
Outcome measures	Mental health outcome 1 Mindfulness was measured using the 15- item Mindfulness Attention Awareness Scale (Brown, West, Loverich, & Biegel, 2011), which asks youth to respond to the frequency, ranging from almost always to almost never, of experiencing events such as "doing things without paying attention" and "doing jobs or tasks automatically without being aware of what I'm doing." Mental Health outcome 2 Emotional regulation was measured using the Emotional Regulation Questionnaire (Gullone & Taffe, 2012), which consists of 10 statements to which participants respond using a 5-point Likert scale ranging from strongly agree to strongly disagree. Examples include "I controlmy feelings by not showing them" and "I control my feelings about things by changing the way I think about them." Mental health outcome 3 the 20-item Mental Health Index (Heubeck & Neill, 2000) was used to measure youth's general well-being, and youth responded to a series of questions such as "During the past month, have you been anxious or worried?" using a 6-point Likert scale ranging fromall of the time to none of the time. Relationship outcome Goodenow's (1993) 18-item Psychological Sense of School Membership was used to measure the degree to which youth felt connected to people within their school. Using a 5-point Likert scale ranging from not at all true to completely true, youth responded to a series of statements such as "Most teachers at my school are interested in me" and "People at my school are friendly to me." relationship outcome 2 Youth/Natural Mentor Relationship Quality. The quality of the youth/mentor dyadic relationship was measured using the Youth Mentoring Survey (YMS) and the Relational Health Indices (RHI). The YMS consists of 25 items that measure how youth feel about their mentors and 25 items that measure what youth do with their mentors (Harris & Nakkula, 2008). Using a series of varied Likert scales, youth respond to statements such as "My mentor and I are close (very good friends)" and "How often do you do activities that are really fun?"

	The six-item RHI (Liang et al., 2002) asks youth to respond to a series of statements such as “My mentor helps me even more than I ask or imagine” using a 5-point Likert scale ranging from never to always. Strengths outcome 1 Grit: Using the 12-item Grit Scale (Duckworth, Peterson, Matthews, & Kelly, 2007), youth were asked to respond to statements such as “I have overcome setbacks to conquer an important challenge” by selecting responses from a 5-point Likert scale ranging from very much like me to not at all like me. Strengths outcome 2 Resilience. Resilience was measured using Ungar and Liebenberg’s (2011) 12-item Children and Youth Resilience Measure, and youth were asked to respond to statements such as “I know where to turn in my community for help” using a 5- point Likert scale ranging from not at all to a lot. Independence outcome 1 The Ansell- Casey Life Skills Assessment (Nollan et al., 1997) was used to measure a number of skills across five domains (i.e., daily living, communication, self-care, work and study skills, and social relationships). Using a 5-point Likert scale ranging from no to yes, youth responded to statements such as “I can fix meals for myself on my own” and “I ask for help when I need it.” Future hope outcome Perceived Future Opportunities scale. Youth were asked to respond to the likelihood that a series of 10 events would occur (i.e., low chance, medium chance, high chance), such as “graduating from high school,” “getting what you really want out of life,” and “having good friends you can count on.” Strengths outcome 3 Prosocial behavior and the quality of youth’s peer relationships were measured using the Strengths and Difficulties Questionnaire (Goodman, Meltzer, & Bailey, 1998), which consists of 25 statements that youth rate as not true, somewhat true, or certainly true. Examples include “I am helpful if someone is hurt, upset or feeling ill” and “I have one good friend or more.”
Study Arms	**Natural mentoring intervention (N = 10)** C.A.R.E. is designed to facilitate and support the development of growth-fostering relationships among older foster youth and their self-selected natural mentors. There are several important differences between natural and formal mentoring interventions. One of the primary differences concerns how the match between youth and natural mentor comes to be. With formal/programmatic mentors, an external entity, like Big Brothers Big Sisters,makes the match between the youth and an unfamiliar, volunteer adult mentor. However, with natural mentoring, the two individuals find each other and the relationship proceeds fluidly, often over an extended period, potentiating a strong bond between the youth and his or her natural mentor. C.A.R.E. is 12 weeks and is delivered by an interventionist with a Master of Social Work degree. Prior to enrollment in C.A.R.E., the interventionist meets individually with the youth in an effort to identify an appropriate natural mentor. Once the natural mentors have been screened and approved, they undergo a trauma-informed training to better understand adolescent development, the role of trauma and loss in the lives of youth in foster care, the importance of self-

	care, the need for clear boundary setting, and the expectations associated with being a natural mentor. During the 12-week intervention period, which follows the preintervention work and natural mentor training, youth and their natural mentors participate in a variety of structured group activities as well as supportive one-on-one sessions with the interventionist designed to strengthen bonds and clarify expectations surrounding the natural mentoring relationship. Natural mentors are expected to meet with youth on a weekly basis outside of the program's activities for at least 2 hours and, during this time, provide hands-on, coached life skills training (e.g., budgeting, cooking, apartment searching) as well as opportunities for engagement in activities in the community. At the end of the 12 weeks, there is a formal dinner/graduation for all of the youth and their natural mentors, during which each pair celebrates the development of their relationship. After-care sessions are available as needed for the youth and their natural mentors to further support and sustain the relationships over time. C.A.R.E. is manualized and progresses as follows: 1. Preintervention work a. Assessing youth's permanent connections b. Screening and background checking natural mentors 2. Training natural mentors (lasts approximately 6 to 8 hours) a. Icebreaker/introductions b. Adolescent development c. Understanding how the child welfare system works d. Trauma-informed natural mentoring e. Practices of effective natural mentors f. What should we do? g. Establishing and maintaining boundaries h. Wrap-up 3. Facilitating development of growth-fostering relationships between youth in care and their natural mentors a. Orientation to C.A.R.E. for youth & natural mentors b. Permanency pact (developed by FosterClub, n.d.) c. Weekly supervision of dyads d. Separate monthly informal support groups for youth and natural mentors e. Group field trip(s) f. Casey life skills g. Affect regulation training/mindfulness (using Koru, developed by Rogers & Maytan, 2012) h. Video portraits i. celebration 4. After care/booster sessions

Study type	Randomised controlled trial (RCT) Mixed methods
Study location	USA
Study setting	Foster youth leaving care
Study dates	September 2014 to September 2015

Duration of follow-up	Postintervention
Sources of funding	Administration on Children, Youth & Families, U.S. Department of Health and Human Services
Sample size	24
Split between study groups	Intervention group = 12 Control group = 12
Loss to follow-up	Intervention group = 2 Control group = 5
% Female	50%
Mean age (SD)	18.83 ± 8.3
Condition specific characteristics	Non-white ethnicity 100% were african-americans Type of care Biological parents 0%; family members 25%; foster parents 50%; friends 8.3%; no one 16.7%. Mental health needs ever in therapy: 91.7%; now in therapy: 25.0%
Outcome measures	Mental health outcome 1 Mindfulness score (Mindfulness Attention Awareness Scale) postintervention, mean: 3.9 ± 0.94

	Mental Health outcome 2 Emotional regulation score (Emotional Regulation Questionnaire) postintervention, mean: 2.47 ± 0.69 **Mental health outcome 3** Mental health score (Mental Health Index) postintervention, mean: 4.2 ± 1.5 **Relationship outcome** Sense of school membership score (Psychological Sense of School Membership), postintervention, mean: 3.9 ± 0.97 **relationship outcome 2** Youth mentor relationship score (Youth/Natural Mentor Relationship Quality/Relational Health Indices) mean postintervention: 2.9 ± 0.29/3.8 ± 0.41 **Strengths outcome 1** Grit score (12-item Grit Scale) postintervention, mean: 4.0 0 ± 0.72 **Strengths outcome 2** Resilience score (12-item Children and Youth Resilience Measure) postintervention, mean: 3.7 ± 0.87 **Independence outcome 1** Life Skills score. (Ansell- Casey Life Skills Assessment) mean, postintervention: 4.5 ± 0.57 **Future hope outcome** Perceived Future Opportunities scale, postintervention, mean: 2.6 ± 0.40 **Strengths outcome 3** Strengths and Difficulties Questionnaire, postintervention, mean: 1.8 ± 0.23

Services as usual (N = 7)

Both groups continued to receive services as usual at the AIC, which consisted of both case management and classroom-based learning designed to promote life skills development. In addition to services as usual, the intervention group received the C.A.R.E. intervention.

% Female	50%

	Mean age (SD)	18.58 ± 0.67
	Condition specific characteristics	Non-white ethnicity 100% were african-americans Type of care biological parents: 16.7%; family members: 0%; foster parents: 8.3%; friends: 0.0%; no one: 41.7% Mental health needs ever in therapy: 100%; now in therapy: 41.7%
	Outcome measures	Mental health outcome 1 Mindfulness score (Mindfulness Attention Awareness Scale) postintervention, mean: 4.5 ± 1.3 Mental Health outcome 2 Emotional regulation score (Emotional Regulation Questionnaire) postintervention, mean: 1.89 ± 0.72 Mental health outcome 3 Mental health score (Mental Health Index) postintervention, mean: 4.5 ± 0.99 Relationship outcome Sense of school membership score (Psychological Sense of School Membership), postintervention, mean: 3.7 ± 0.87 relationship outcome 2 Youth mentor relationship score (Youth/Natural Mentor Relationship Quality/Relational Health Indices) mean postintervention: 2.6 ± 0.41/3.5 ± 0.61 Strengths outcome 1 Grit score (12-item Grit Scale) postintervention, mean: 3.6 ± 0.53 Strengths outcome 2 Resilience score (12-item Children and Youth Resilience Measure) postintervention, mean: 3.8 ± 0.75 Independence outcome 1 Life Skills score. (Ansell- Casey Life Skills Assessment) mean, postintervention: 4.1 ± 0.66 Future hope outcome Perceived Future Opportunities scale, postintervention, mean: 2.5 ± 0.34

	Strengths outcome 3 Strengths and Difficulties Questionnaire, postintervention, mean: 1.9 ± 0.27
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Low **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low **Domain 3. Bias due to missing outcome data** Low **Domain 4. Bias in measurement of the outcome** High **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** Some concerns (No blinding and the outcomes are somewhat subjective.) **Overall Directness** Partially applicable (USA study)

Haggerty 2016

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Foster teens and their caregivers
Study dates	June 2012 through February 2013
Duration of follow-up	3 months
Sources of funding	National Institute on Drug Abuse
Inclusion criteria	Age 11 to 15 years Care situation placement in foster care had to be 30 days or longer, and could be with a licensed or unlicensed relative caregiver, or a licensed foster caregiver. Teens in dependency guardianships were also eligible. teens selected for involvement were considered to be in stable placements that were expected to last for at least 6 months. Language Teens and caregivers needed to speak and be literate in English to use the pilot Connecting manual and respond to survey questions. Criminal characteristics Teens included in the study were not known to have any past involvement in the criminal justice system Drug abuse Teens included in the study were not known to be regularly using drugs or alcohol in the last 30 days.
Exclusion criteria	Care situation Teens in group-home and behavioral rehabilitation services placements were excluded.
Sample size	60 families

Split between study groups	SCT = 32 Waitlist = 28
Loss to follow-up	SCT = 7 Waitlist = 2
% Female	foster teens: 63%
Mean age (SD)	13.5 years
Condition specific characteristics	Non-white ethnicity 52%
Outcome measures	Behavioural outcome 1 Teen reported deviant attitudes score (author developed scale) at 3 months follow up. Teen deviant attitudes were assessed with a series of questions asking if the teen thinks it is OK for someone their age to engage in 11 different inappropriate behaviors (e.g. have sex, smoke marijuana, get into a fight, cut school, etc.). Responses were on a 4-point scale (NO! = 1, no = 2, yes = 3, YES! = 4) such that high scores indicated a stronger endorsement of the behavior. Items were averaged (Cronbach's alpha = .91). Relationship outcome Teen/caregiver reported family conflict (Moos Family Environment Scale) at 3 months follow up. Family conflict was assessed using a modified version of the Moos Family Environment Scale (Moos & Moos, 1994) on the teen and caregiver surveys. Responses were recorded as 0 = false, 1 = true, and were averaged. Items include "We fight a lot in our family," "Family members rarely lose their tempers" (reversed), "Family members often criticize each other," and "Family members rarely become openly angry" (reversed). Four items achieved moderate internal consistency for teens (Cronbach's alpha = .64) and caregivers (Cronbach's alpha = .77). relationship outcome 2 Caregiver reported positive involvement score (author-developed scale) at 3 months follow up: Caregivers also reported on teen's positive involvement across 17 items (Cronbach's alpha = .88). Response options varied so the item scores were standardized to a mean of 0 and standard deviation of 1.0 and then averaged. Examples of items include, "In the past month, how often did you and the teen do something active together?" and "In general, how may evenings a week does your family usually eat meals together?" relationship outcome 3 Teen-reported bonding/attachment (modified version of the Inventory of Parent and Peer Attachment) at 3 months follow up: Bonding/attachment was assessed using a modified version of Greenberg and Armsden's Inventory of Parent and Peer Attachment (2009) in which the word parent(s) was replaced with the word caregiver(s) and the instructions to the teen said the questions were about the caregiver with whom they were currently living. Examples include "I trust my caregiver", "My caregiver(s) encourage me to talk about my

	difficulties" and "Talking over my problems with my caregiver(s) makes me feel ashamed or foolish." Response options ranged from 1 to 5 and were coded so that high scores indicated high bonding, and the internal consistency was high (Cronbach's alpha = .94). A mean score was calculated from all 28 items. Health outcome 1 Teen/caregiver report for communication about substance use (author derived measure) at 3 months follow up. Teen/caregiver report for communication about sex (author derived measure) at 3 months follow up. Caregiver/teen communication was assessed using a series of questions on the teen and caregiver surveys asking how often they communicate with the other about substance use and sex. Scores were calculated as means of appropriate items (described below) separately for T1, T2, and T3. For teens, response options were 1 = never, 2 = once or twice, 3 = a few times, and 4 = more than a few times. Teen report of communication about substance use is the mean of three items assessing frequency of talking with their caregiver about (a) drinking alcohol, (b) using drugs, and (c) smoking cigarettes (Cronbach's alpha = .95). Teen report of communication about sex is the mean of three items assessing frequency of talking with the caregiver about (a) having sex, (b) using condoms, and (c) sexually transmitted diseases (Cronbach's alpha = .91). Caregivers answered the same questions; however, their response options ranged from 1 = never to 5 = very often. Cronbach's alpha for substance use = .95, and for sex = .98. Health outcome 2 Teen-reported alcohol refusal score (author developed scale) at 3 months follow up: Teens were asked how they would handle the offer of alcohol at a party as a measure of alcohol refusal skills. Responses were coded 0 if they said they would drink and 1 if they reported any of the following responses: "No thank you, I don't drink," "No thank you," made up an excuse not to drink, or left the party.
Study Arms	**Staying Connected with Your Teen (SCT) (N = 32)** Staying Connected with Your Teen (SCT) is an evidence-based prevention program designed to improve family functioning by focusing on parenting. The Connecting program was systematically adapted from SCT for teens in foster care and their caregivers (Barkan et al., 2014). The program is theoretically guided by the social development model (Hawkins et al., 2008) and focuses on reducing risk factors and promoting protective factors in universal populations. SCT began as a substance abuse prevention program for families with teenagers between 12 and 17 years of age. Originally designed to be delivered in small groups of parents and teens facilitated by trained group leaders, a self-directed version of the program was also developed using the same materials. Self-directed SCT requires families to spend approximately one hour per week for 8 – 11 weeks in order to complete the program. The program includes a 108-page family workbook written at an eighth-grade reading level, and 117 minutes of step-by-step video with interactive activities featuring Latino, African American, and European American families. Families are contacted each week by a family consultant to support use of the program. In addition to the original program content, the final Connecting adaptations included connection activities, more specific resources for foster parents, and attention to the development of foster teens' independent living skills. Study type: Randomised controlled trial (RCT)

Study location	USA
Study setting	Foster teens and their caregivers
Study dates	June 2012 through February 2013
Duration of follow-up	3 months
Sources of funding	National Institute on Drug Abuse
Inclusion criteria	Age 11 to 15 years Care situation placement in foster care had to be 30 days or longer, and could be with a licensed or unlicensed relative caregiver, or a licensed foster caregiver. Teens in dependency guardianships were also eligible. teens selected for involvement were considered to be in stable placements that were expected to last for at least 6 months. Language Teens and caregivers needed to speak and be literate in English to use the pilot Connecting manual and respond to survey questions. Criminal characteristics Teens included in the study were not known to have any past involvement in the criminal justice system Drug abuse Teens included in the study were not known to be regularly using drugs or alcohol in the last 30 days.
Sample size	60 families
Split between study groups	SCT = 32

	Waitlist = 28
Loss to follow-up	SCT = 7 Waitlist = 2
% Female	"There were no significant differences between the two conditions for sex"
Mean age (SD)	"There were no significant differences between the two conditions for age"
Condition specific characteristics	Non-white ethnicity "There were no significant differences between the two conditions for ethnicity"
Outcome measures	Behavioural outcome 1 Teen reported deviant attitudes score (author developed scale) at 3 months follow up: 1.26 ± 0.41 Relationship outcome Teen/caregiver reported family conflict (Moos Family Environment Scale) at 3 months follow up: 0.26 ± 0.24/0.32 ± 0.30 relationship outcome 2 Caregiver reported positive involvement score (author-developed scale) at 3 months follow up: 0.04 ± 0.61 relationship outcome 3 Teen-reported bonding/attachment (modified version of the Inventory of Parent and Peer Attachment) at 3 months follow up: 4.03 ± 0.73 Health outcome 1 Teen/caregiver report for communication about substance use (author derived measure) at 3 months follow up: 2.60 ± 0.75/3.50 ± 1.34. Teen/caregiver report for communication about sex (author derived measure) at 3 months follow up: 2.17 ± 0.81/3.77 ± 1.34. Health outcome 2 Teen-reported alcohol refusal score (author developed scale) at 3 months follow up: 0.92 ± 0.28

Waitlist control (N = 28)

Waitlist controls received the intervention following post-intervention survey (at the end of three months). Another survey was completed following another three months in both groups.

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Foster teens and their caregivers
Study dates	June 2012 through February 2013
Duration of follow-up	3 months
Sources of funding	National Institute on Drug Abuse
Inclusion criteria	Age 11 to 15 years Care situation placement in foster care had to be 30 days or longer, and could be with a licensed or unlicensed relative caregiver, or a licensed foster caregiver. Teens in dependency guardianships were also eligible. teens selected for involvement were considered to be in stable placements that were expected to last for at least 6 months. Language Teens and caregivers needed to speak and be literate in English to use the pilot Connecting manual and respond to survey questions. Criminal characteristics Teens included in the study were not known to have any past involvement in the criminal justice system Drug abuse Teens included in the study were not known to be regularly using drugs or alcohol in the last 30 days.

	<table><tr><td>Sample size</td><td>60 families</td></tr><tr><td>Split between study groups</td><td>SCT = 32 Waitlist = 28</td></tr><tr><td>Loss to follow-up</td><td>SCT = 7 Waitlist = 2</td></tr><tr><td>Outcome measures</td><td>Behavioural outcome 1 Teen reported deviant attitudes score (author developed scale) at 3 months follow up: 1.41 ± 0.48 Relationship outcome Teen/caregiver reported family conflict (Moos Family Environment Scale) at 3 months follow up: 0.36 ± 0.33/0.24 ± 0.27 relationship outcome 2 Caregiver reported positive involvement score (author-developed scale) at 3 months follow up: -0.13 ± 0.65 relationship outcome 3 Teen-reported bonding/attachment (modified version of the Inventory of Parent and Peer Attachment) at 3 months follow up: 3.63 ± 0.80 Health outcome 1 Teen/caregiver report for communication about substance use (author derived measure) at 3 months follow up: 2.24 ± 0.78/3.75 ± 1.38; Teen/caregiver report for communication about sex (author derived measure) at 3 months follow up: 1.79 ± 0.71/3.97 ± 1.10 Health outcome 2 Teen-reported alcohol refusal score (author developed scale) at 3 months follow up: 0.88 ± 0.33</td></tr></table>
Risk of Bias	**Domain 1: Bias arising from the randomisation process** High **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)**

	Low **Domain 3. Bias due to missing outcome data** Low **Domain 4. Bias in measurement of the outcome** High **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** High (Method of randomization not provided. No baseline characteristics to assess the success of randomization. No blinding and the outcomes are somewhat subjective.) **Overall Directness** Partially applicable (USA study)

Haight 2010

Study type	Randomised controlled trial (RCT) Mixed methods

Study location	USA
Study setting	Rural foster children from methamphetamine-involved families
Study dates	Not reported
Duration of follow-up	postintervention
Sources of funding	National Institute on Drug Abuse
Inclusion criteria	Age 7 to 15 years Care situation In foster care Parent Parents misused methamphetamine
Sample size	23
Split between study groups	Wait list = 10 Intervention = 12
Loss to follow-up	Wait list = 3 Intervention = 4
% Female	40%

Mean age (SD)	Mean 9.6 years
Condition specific characteristics	Non-white ethnicity all were Caucasian Exploitation or maltreatment 73% of children had substantiated cases of neglect and 27% of sexual and/or physical abuse Number of care placements mean 1.9 placements time in care mean 23.7 months Type of care Twenty-seven percent of children were living with relatives in kinship foster care, and 73% were living in traditional foster homes.
Interventions	Other interventions received Upon entering the study, 11 children (73%) had received some supportive counseling services in the offices of master's-level clinicians.
Outcome measures	Behavioural outcome 1 Children's behavioral functioning were assessed using the Child Behavior Checklist (CBCL) completed by their foster caregivers. Developed for children between the ages of 6 and 18, this measure is a checklist including children's internalizing, externalizing, aggression and total behavior problems (Achenbach & Rescorla, 2001). The CBCL is a widely used standardized assessment with adequate reliability and validity. Mental health outcome 1 Children's mental health were assessed using the Child Behavior Checklist (CBCL). A PTSD/dissociation subscale also has been derived from existing items (Sim et al., 2005). This subscale discriminates normative samples from psychiatric and sexual abuse samples.
Study Arms	**Life Story Intervention (N = 8)** “Life Story Intervention” (LSI) is a mental health intervention adapted for individual rural children (aged 7–17) affected by parent methamphetamine abuse by a transdisciplinary team including a child clinical psychologist, counselor, psychiatrist, developmental psychologist, child welfare professional and social worker. LSI draws upon empirical research on rural, methamphetamine-involved families and their children's experiences and psychological functioning; narrative traditions;

	and the treatment of trauma in children who have experienced family violence. It also draws upon the American Association of Child and Adolescent Psychiatry (AACAP) guidelines for intervention with children who have experienced trauma (American Academy of Child and Adolescent Psychiatry, 1998); and the considerable, locally-based clinical experience of team members with traumatized children in foster care who are affected by parent substance misuse. It is a narrative- and relationship-based intervention administered in and around the children's homes by community-based, master's degree level professionals experienced in working with children, e.g., teachers, child welfare professionals, counselors. Over approximately a 7 month period, children meet individually for one hour-long weekly sessions with these local professionals. These "community clinicians" receive weekly training and supportive supervision in a small group setting from a PhD level clinical psychologist or psychiatrist experienced in working with traumatized children and drug-involved families. (The psychologist and psychiatrist also are available for individual consultations.) In the first phase of the intervention lasting approximately 2 months, community clinicians focus on establishing an emotionally supportive relationship with the children, most of whom have histories of maltreatment and disrupted relationships with caregivers and other adults. Given children's relationship histories, it is especially important for community clinicians to carefully frame their relationships, including its time limits, with the children. Some described their relationships as "like at school." At the end of the school year, the student moves on, but the teacher is still interested in the child's progress, and they may even see one another around the community. During this first phase, the community clinician and child may engage in activities of the child's choosing such as walking in the woods, eating at a fast food restaurant, and playing with pets. The focus of the next approximately four months is the coconstruction of personal narratives. Children are invited, but never pressured, to talk about their lives in familiar surroundings in and around the home while engaged in activities such as swinging, drawing, reading children's books, pretending with puppets or a dollhouse, or just talking. Therapists working within a narrative framework emphasize the importance of creating stories as a way to help children interpret and gain a feeling of control and continuity in their lives, rethink views of themselves and others, and begin to alter problematic beliefs. In the context of children's own stories, clinicians also educate and correct misinformation about substance misuse, a necessary component of any intervention for children affected by parent substance misuse. Given the emotionally sensitive nature of this topic for many of the children in our study, as well as the socialization messages they may have received prohibiting the discussion of such information with family outsiders, the authors approach to substance misuse education is flexibly adapted to the child's tolerance. Trauma: There are a variety of approaches to therapeutic intervention with children who have experienced trauma which authors incorporate in LSI: 1) establishing a trusting relationship with a

	supportive adult is the focus of the first two months of LSI and is emphasized throughout. 2) LSI focuses on children's understanding of and emotional reactions to trauma through the coconstruction of personal narratives. Clinicians do address traumatic events, an approach shown to be more effective than nondirective treatments, but with careful attention to the child's tolerance. The focus is not on the development of a "trauma narrative", but of a life story, which includes traumatic as well as other events. 3) LSI is designed to support a sense of mastery over traumatic events, an approach which has been shown to be more effective than techniques designed to merely help children express their feelings. LSI focuses on the child's mature and adaptive as well as problematic, responses to difficult situations. Termination issues are the focus of the final month of LSI. During this time, the end of the intervention is discussed with children, and mementos of the time spent together are created, for example, pictures, stories, and other artwork. In addition, children are helped to identify a trustworthy, supportive adult in their existing social network, for example, a grandparent or teacher, who can provide ongoing emotional support. In the final session, clinicians meet with these "natural mentors" and the children to review progress, share the mementos and say good-bye.

% Female	"Of the 15 children completing the study, t-tests and chi square analyses revealed no significant differences between the experimental and control groups on gender"
Mean age (SD)	"Of the 15 children completing the study, t-tests and chi square analyses revealed no significant differences between the experimental and control groups on age"
Condition specific characteristics	time in care "Of the 15 children completing the study, t-tests and chi square analyses revealed no significant differences between the experimental and control groups on length of time in foster care Mental health needs "Of the 15 children completing the study, t-tests and chi square analyses revealed no significant differences between the experimental and control groups on receipt of supportive counseling"

	Outcome measures **Behavioural outcome 1** Behaviour score (Child Behavior Checklist (CBCL)) at postintervention, mean internalising/externalising/total problem score: 55 ± 7.84/57 ± 7.84/58 ± 7.84 (% in the clinical/subclinical range: 25/38/50) **Mental health outcome 1** PTSD/dissociation score (CBCL) at postintervention: 6 SEM 2 **Wait list (N = 7)** Children assigned to the wait-list control group received the intervention at the conclusion of the study. **Outcome measures** **Behavioural outcome 1** Behaviour score (Child Behavior Checklist (CBCL)) at postintervention, mean internalising/externalising/total problem score: 51 ± 9.8/64 ± 9.8/60 ± 11.8 (% in the clinical/subclinical range: 43/58/43) **Mental health outcome 1** PTSD/dissociation score (CBCL) at postintervention: 6 SEM 2
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Some concerns (No information about method of randomisation, or if allocation concealment occurred. However, no significant differences were observed across study groups for age, gender, length of time in care, supportive counselling, or vocabulary) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** High (loss to follow up was largely due to moving away from study, however, unclear reasons for other exclusions. Probable per-protocol approach ("participants who failed to complete" were excluded) with significant attrition across arms: >10%) **Domain 3. Bias due to missing outcome data** Some concerns

	(Missing data is likely to be related to child behaviour and mental health needs (e.g. participants who moved away were excluded). Attrition appeared to be balanced between groups, however unclear reasons for LTFU in every case.) **Domain 4. Bias in measurement of the outcome** Some concerns **Domain 5. Bias in selection of the reported result** Some concerns (Unclear trial was analysed and performed in accordance with a pre-specified plan (insufficient information)) **Overall bias and Directness** High **Overall Directness** Indirectly applicable (USA-based)

Kerr 2009/Harold 2013/Kerr 2014/Poulton 2014

Study type	Randomised controlled trial (RCT) See also Van Ryzin 2012, RQ2.1; see also Poulton 2014, Kerr 2009/2014
Study location	USA
Study setting	Girls with chronic delinquency referred to out-of-home care

Study dates	1997 to 2006
Duration of follow-up	6, 12, 18 ,24 months
Sources of funding	National Institute on Drug Abuse, US Public Health Service,
Inclusion criteria	Care situation mandated to community-based, out-of-home care due to problems with chronic delinquency Age 13 - 17 years of age Gender Girls
Exclusion criteria	Pregnancy Girls pregnant at the time of recruitment
Sample size	166
Split between study groups	MTFC = 81 Group care = 85
Loss to follow-up	MTFC = 6 Group care = 8 (all were analysed)
% Female	100%

Mean age (SD)	15.30 ± 1.17 years
Condition specific characteristics	non-white ethnicity 26%
Outcome measures	Health outcome 1 Pregnancy at 12 months and 24 months: In Trial 1, each girl and her current caregiver were separately interviewed at 12 and 24 months postbaseline regarding pregnancies that had occurred during the study. In Trial 2, the girls reported at 6, 12, 18, and 24 months postbaseline on whether they had become pregnant in the past 6 months; caregivers reported the girls' past year pregnancies at 12 and 24 months postbaseline. For both trials, the presence or absence of a postbaseline pregnancy was coded in yes/no format on the basis of all available information. Pregnancies reported by girls were counted as positive. Caregiver reports were used when girls' reports were missing. Mental health outcome 1 Self-reported depression symptoms: assessed using the Brief Symptom Inventory (BSI): Depression Subscale (Derogatis and Melisaratos 1983) The BSI is the short form of the SCL-90R instrument, both of which have typically been used as objective methods of screening for psychological problems and measuring treatment progress. The depression subscale was computed as the mean of six items rated on a 5-point Likert-type scale from 0 (not at all) to 4 (very much). Mental health outcome 2 Self-reported depression (clinical cut off): assessed using the Brief Symptom Inventory (BSI): Depression Subscale (Derogatis and Melisaratos 1983) The BSI is the short form of the SCL-90R instrument, both of which have typically been used as objective methods of screening for psychological problems and measuring treatment progress. The depression subscale was computed as the mean of six items rated on a 5-point Likert-type scale from 0 (not at all) to 4 (very much). The clinical cut-off score was computed as a T-score of greater than 63, using the BSI manual guidelines (Derogatis 1993). Mental health outcome 3 Psychotic symptoms (BSI): The BSI is the short form of the SCL-90R instrument, both of which have typically been used as objective methods of screening for psychological problems and measuring treatment progress. The psychosis subscale was computed as the mean of five items rated on a 5-point Likert-type scale from 1 (not at all) to 5 (very much). The five items assessed whether the participant felt in the last week that: (1) someone else was controlling her thoughts; (2) she was lonely even when with others; (3) she should be punished for her sins; (4) she never felt close to another person; and (5) something was wrong with her mind. In our analysis, we used the T-score form of this measure. Mental health outcome 4 Psychotic symptoms (DISC-IV): The DISC-IV is a diagnostic interview that was designed to be administered by clinically untrained interviewers and covers diagnostic criteria from the DSM-IV, the DSM-III-R, and the International Classification of Diseases, 10th Revision (ICD-10). The DISC-IV was measured at baseline and 24 months for cohort I, and 12 and 24 months for cohort II. In analysis, authors used the count of the 22 psychotic symptoms at each DISC-IV assessment. Sample items include having visions, hearing things others didn't hear, believing people were plotting against you, and believing that others were stealing your thoughts. Mental health outcomes 5 Depressive symptoms: depressive symptoms were measured with the 20-item Center for Epidemiologic Studies–Depression instrument (CES–D; Radloff, 1977). The score ranges from 0 to 60 and is based on summed items using a 4-point scale (0 –3) indicating frequency of events during previous week, ranging from rarely or none (0 –1 day) to most or all of the time (5–7 days). Sample items are felt depressed, fearful, lonely, and hopeful about the future. Mental health outcome 6

	Suicidal ideation (BSI): suicidal ideation was measured from baseline to early adulthood using an item (“During the past week, how much were you bothered by thoughts of ending your life?”) from the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983). This outcome was re-coded to the absence (0 not at all) or presence (1 from a little bit to very much) of suicidal ideation. Mental health outcome 7 Suicide attempt: Suicide attempt was assessed using the Columbia Suicide Severity Rating Scale (C–SSRS; Posner et al., 2009, 2011), Lifetime Version, beginning 12 months after the first young adult follow-up (or at age 18 years, whichever came later), when funding for this assessment began. Participants were interviewed again 6 and 12 months later using 6-month versions of the C–SSRS; thus, histories were collected to a mean (SD) of 12.17 (1.69) and 7.05 (1.16) years postbaseline for Cohorts 1 and 2, respectively. Standardized probes were used to elicit reporting of all acts potentially meeting criteria for Posner and colleagues’ (2009, p. 3) definition of actual attempt, that is, “a potentially self-injurious act committed with at least some wish to die, as a result of act.” For each act, interviewers then used further standardized probes to determine whether to consider it an actual attempt versus another act, such as interrupted attempt (being interrupted by an outside circumstance, such as another person, from starting a potentially self-injurious suicidal act that otherwise would have occurred), aborted attempt (stopping oneself when an attempt was imminent), or nonsuicidal self-injury (self-injurious act with no intent to die as a result of the act).
Study arms	**Multidimensional Treatment Foster Care (MTFC) (N = 81)** MTFC girls were individually placed in one of 22 highly trained and supervised homes with state-certified foster parents. Foster parents receive state certification after 20 hours of pre-service orientation. Experienced program supervisors oversaw all clinical staff, coordinated all aspects of each youth’s placement, and maintained daily contact with MTFC parents to monitor treatment fidelity and to provide ongoing consultation, support, and crisis intervention services. MTFC placements involve coordinated interventions in the home, with peers, in educational settings, and with the adolescent’s birth parents, adoptive family, or other long-term placement resource. Specifically, interventions included all basic MTFC components: (1) daily telephone contact with the foster parents to monitor case progress and adherence to the MTFC model; (2) weekly group supervision and support meetings for foster parents; (3) an individualized, in-home, daily point-and-level program for each girl; (4) individual therapy for each girl; (5) family therapy for the aftercare placement family focusing on parent management strategies; (6) close monitoring of school attendance, performance, and homework completion; (7) case management to coordinate the interventions in the foster family, peer, and school settings; (8) 24-hr on-call staff support for foster and biological parents; and (9) psychiatric consultation, as needed. In Cohort II, the MTFC condition additionally included intervention components targeting substance use (motivational interviewing and incentives for clean urinalyses) and risky sexual behavior (information on sexual behavior norms and HIV-risk behaviors and instruction about strategies for being sexually responsible; girls also participated in an interactive video "virtual date" aimed at helping them identify and avoid sexual coercion). Overall, the MTFC intervention embodies a strong focus on strength-building and positive reinforcement, and specific treatment services are tailored to the child’s developmental level. Five specific adaptations for girls were developed based on previous research and the authors clinical experiences, each of which focused on additional

	training for foster parents and therapists on new strategies and protocols relevant to girls. The female-focused intervention components included the following adaptations: (a) providing girls with reinforcement and sanctions for coping with and avoiding social/relational aggression; (b) working with girls to develop and practice strategies for emotional regulation, such as early recognition of their feelings of distress and problem solving coping mechanisms; (c) helping girls develop peer relationship building skills, such as initiating conversations and modulating their level of self disclosure to fit the situation; (d) teaching girls strategies to avoid and deal with sexually risky and coercive situations; and (e) helping girls understand their personal risks for drug use, including priority setting using motivational interviewing and provision of incentives for abstinence from drug use monitored through random urinalysis.

Study type	Randomised controlled trial (RCT) See also Van Ryzin 2012, RQ2.1
Mean age (SD)	Study states "There were no group differences on demographic characteristics, delinquency (self-report, days in locked settings, or official records), or childhood maltreatment at baseline. However, there was a significant group difference in depression symptoms." This was adjusted for in analysis.
Outcome measures	Health outcome 1 Number pregnant at 12 months/24 months: 9 (n=77)/21 (n=78). Association between being in the MTFC group and pregnancy at 24 months follow up - beta coefficient -0.89 SE 0.31/aOR 0.41 (95%CI 0.23 to 0.75). Adjusted for baseline criminal referrals, baseline sexual activity, and baseline pregnancy history. Mental health outcome 1 Self-reported depression symptoms at 6-months/12 months/24 months: 1.00 SD 0.93/0.73 SD 0.71/0.64 SD 0.76. Being in the intervention group was found to be associated with a reduction in depression symptoms over a two year follow up: unstandardised beta coefficient: -0.34 (P<0.05). Adjusting for depression symptoms at baseline, age, RCT trial, physical abuse history, sexual abuse history, ethnicity, prior criminal referrals, days in locked settings, and days to treatment entry. Mental health outcome 2 Proportion with depression (clinical cut off) at 6-months/12 months/24 months: 0.16/0.07/0.12. adjusted odds of clinical depression from being in the intervention group: aOR 0.57 (95%CI 0.39 to 0.83). Adjusted for baseline depression symptoms, RCT trial, age, physical abuse history, sexual abuse history, ethnicity, prior arrests, days in lock up, days to treatment.

		Mental health outcome 3 MTFC effects on Trajectories of Psychotic Symptoms (BSI): association between being in the intervention group and BSI over follow up: beta coefficient -2.05 SE 0.93. Adjusted for baseline marijuana use, baseline age, and ethnicity. **Mental health outcome 4** MTFC effects on psychotic symptoms (DISC-IV): association between being in the intervention group and DISC-IV at 24 months: beta coefficient -0.65 SE 0.22. Adjusted for baseline marijuana use, baseline age, ethnicity, and prior symptoms **Mental health outcomes 5** Self-reported depressive symptoms (CES-D) at 1 year/2 years/7 years/9 years: 18.49 SD 11.80/16.84 SD 11.79/14.79 SD 10.98/11.27 SD 10.88/13.67 SD 11.19. Unstandardised coefficient showing the relationship between being in the intervention group and linear change in depressive symptoms (CES-D): -0.855 SE 0.390. Adjusted for cohort, baseline depression scores, and baseline age. **Mental health outcome 6** Proportion with suicidal ideation (BSI) at 1 year/2 year/7 year/8 year/9 year follow up: 0.06/0.08/0.05/0.00/0.01. Unstandardised coefficient showing the relationship between being in the intervention group and nonlinear change in occurrence of suicidal ideation: -0.079 SE 0.047 (aOR 0.923 95%CI 0.843 to 1.012). Adjusted for cohort, baseline age, and baseline depression scores. **Mental health outcome 7** Association between being in the intervention group and postbaseline suicide attempts: beta coefficient 0.16 SE 0.23. Adjusted for baseline age, depressive symptoms, and attempts.
	Group Care (N = 85) Girls in GC were placed in intensive out-of-home care settings, with 24/7 care. These community-based group care programs represented community treatment as usual for girls being referred to out-of-home care by the juvenile justice system (n = 35 unique GC settings). GC girls were placed in 1 of 35 community-based GC programs located in Oregon; across the two trials, each site served 1–12 study participants (M = 2.18, SD = 2.95). The programs had 2–83 youths in residence (M = 13) and 1–85 staff members (Mdn = 9); GC facilities either served girls only (68%) or served both genders, but the facilities housed girls and boys in separate units. GC sites either: (a) required schooling on grounds (41%), (b) sent only some girls to school off-grounds (38%), or (c) sent all girls to school off-grounds (21%). Program philosophies were primarily behavioral (67%) or multiperspective (33%); 80% of the programs reported delivering weekly therapeutic services.	
	Study type	Randomised controlled trial (RCT)

<table>
<tr><td rowspan="3"></td><td></td><td>See also
Van Ryzin 2012, RQ2.1</td></tr>
<tr><td>Mean age (SD)</td><td>1.31 ± 1.17 years</td></tr>
<tr><td>Outcome measures</td><td>Health outcome 1
Number pregnant at 12 months/24 months: 16 (n=80)/ 37 (n=81)

Mental health outcome 1
Self-reported depression symptoms at 6-months/12 months/24 months: 0.93 SD 0.93/0.78 SD 0.78/0.81 SD 1.06.

Mental health outcome 2
Proportion with depression (clinical cut off) at 6-months/12 months/24 months: 0.12/0.12/0.19.

Mental health outcomes 5
Self-reported depressive symptoms (CES-D) at 1 year/2 years/7 years/8 years/9 years: 18.19 SD 11.02/19.20 SD 14.35/13.96 SD 12.01/15.20 SD 12.10/14.24 SD 12.43

Mental health outcome 6
Proportion with suicidal ideation (BSI) at 1 year/2 year/7 year/8 year/9 year follow up: 0.06/0.12/0.04/0.05/0.01</td></tr>
<tr><td>Risk of Bias</td><td colspan="2">Domain 1: Bias arising from the randomisation process

Some concerns

(Unclear if allocation concealment. In addition, there were significant differences between the comparison groups at baseline for depressive symptoms, though these were adjusted for in later analysis.)

Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)

Low

(Study states: "girls often changed placement settings following random assignment (e.g., some MTFC-assigned girls spent time in GC settings, and some GC-assigned girls spent time in foster homes)." However, study also states that all participants in the MTFC group received their intervention and all were analysed.)</td></tr>
</table>

	Domain 3. Bias due to missing outcome data **Low** (Study states some missing data (unclear how much, however loss to follow up was low). Study states that data were missing at random.) **Domain 4. Bias in measurement of the outcome** Low **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** Low **Overall Directness** Partially applicable (Mark down twice for indirectness, since it is unclear that girls were "looked after" prior to being entered into care, in addition study was from the USA)

Jee 2015

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	youth in foster care

Study dates	2012 - 2013
Duration of follow-up	postintervention
Sources of funding	The University of Rochester Provost's Multidisciplinary Award
Inclusion criteria	Care situation youth in foster care and supervised kinship care Age age 14 to 21 years
Sample size	42
Split between study groups	Mindfulness groups = 24 Control = 21
Loss to follow-up	Mindfulness groups = 3 Control = 0
% Female	45.2%
Mean age (SD)	16.8 ± 1.8 years
Condition specific characteristics	non-white ethnicity 83.3%
Outcome measures	Mental health outcome 1

	Mental health problems score: a screening measure for mental health problems. Pediatric Symptom Checklist17 (PSC-17) is a one page behavioral assessment tool that can be completed in <5 min. Mental health outcome 2 Acceptance and mindfulness score: the Child Acceptance and Mindfulness Measures (CAMM) Mental health outcome 3 Stress and anxiety score: the State-Trait Anxiety Inventory for Children (STAIT/STAIS) [7], which is a standardized tool that has been used to measure change in stress
Study arms	**Mindfulness-based stress reduction (N = 21)** Youth who were randomly selected to be in the intervention group were notified at session 1, and were encouraged to return for all 10 sessions. The weekly group was comprised of a two hour weekly session: the first hour was focused on a psychologist with expertise in mindfulness skills teaching the mindfulness intervention, and following an eight week mindfulness curriculum which has been widely studied among adult populations. The second hour was less structured, and was supervised by two pediatricians and a research assistant, and included dinner, and the opportunity to participate in various activities, which included guest speakers, arts and crafts activities, yoga instruction, playing youth-requesting music, and open time to socialize. Guest speakers addressed topics such as educational goals, summer youth programs, resume preparation and job-interviewing skills, and included culturally similar role models to the youth in the program. The first and last group included “ice-breaker” sessions that provided refreshments and informal mingling with other youth and program staff while youth completed consent forms, self-assessments, and electrocardiograms. Authors adapted a mindfulness training program previously used with older populations for use with adolescents. Authors used a community-based participatory research approach [19] by using youth-directed feedback to guide life and social skills training curriculum. Topics included co-learning on promotion of healthy living principles, developing independent living skills (i.e., how to find a job, interview do's and don'ts, local community resources for job-hunting and summer program opportunities), discussion of health topics (i.e., nutrition, cooking healthy foods, open-ended anonymous questions for the pediatricians, teenage risk behaviors and contraception), and youth-guided arts and crafts projects (i.e., tee-shirt decorating, art therapy). Authors used the second half of our weekly meetings to reinforce principles of mindfulness in a less formal and collaborative group-based setting, and youth socialized while eating dinner together and learning about community resources. % Female: 47.6%

	Mean age (SD)	aged 14 - 17 = 81% aged 18 - 21 = 19%
	Condition specific characteristics	non-white ethnicity 76.2%
	Outcome measures	Mental health outcome 1 Self-reported mental health problems score at postintervention (Pediatric Symptom Checklist-17), number of individuals with positive scores: attention: 3; external: 3; internal: 6; total: 5. Mental health outcome 2 Self-report acceptance and mindfulness score at postintervention (the Child Acceptance and Mindfulness Measures): 56.0 SD 8.6 Mental health outcome 3 Self-reported stress and anxiety mean score at postintervention (the State-Trait Anxiety Inventory for Children (STAIT/STAIS)): STAIT 39.6 SD 8.8; STAIS 37.7 SD 8.6
	Control group (no mindfulness intervention) (N = 21) All youth (intervention and control groups) received $25 each time they completed the evaluation measures ($50 total for both pre- and post-evaluation measures). Authors made every effort to treat our intervention and control groups comparably, and offered them identical incentives for completion of evaluation instruments, and food at the time of completing the evaluation.	
	% Female	42.9%
	Mean age (SD)	aged 14 - 17 = 23.8% aged 18 - 21 = 76.2%

<table>
<tr><td></td><td><table>
<tr><td>Condition specific characteristics</td><td>non-white ethnicity
90.5%</td></tr>
<tr><td>Outcome measures</td><td>Mental health outcome 1
Self-reported mental health problems score at postintervention (Pediatric Symptom Checklist-17), number of individuals with positive scores: attention: 4; external: 3; internal: 11; total: 6.

Mental health outcome 2
Self-report acceptance and mindfulness score at postintervention (the Child Acceptance and Mindfulness Measures): 55.4 SD 11.3

Mental health outcome 3
Self-reported stress and anxiety mean score at postintervention (the State-Trait Anxiety Inventory for Children (STAIT/STAIS)): STAIT 42.5 SD 12.2; STAIS 40.2 SD 13.5</td></tr>
</table></td></tr>
<tr><td>Risk of bias</td><td>Domain 1: Bias arising from the randomisation process

Some concerns

(The age of the comparison groups was considerably different with the participants in the control group apparently much older: 76% 18-21 yo)

Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)

Low

Domain 3. Bias due to missing outcome data

Low

Domain 4. Bias in measurement of the outcome

Some concerns

(Unclear how self-report assessments were delivered (e.g. with assistance or not). Outcomes may be subjective and no blinding procedures were apparent.)</td></tr>
</table>

	Domain 5. Bias in selection of the reported result Low **Overall bias and Directness** Some concerns **Overall Directness** Indirectly applicable (USA-based study)

Job 2020*

Bibliographic Reference	Job, A.-K.; Ehrenberg, D.; Hilpert, P.; Reindl, V.; Lohaus, A.; Konrad, K.; Heinrichs, N.; Taking Care Triple P for Foster Parents With Young Children in Foster Care: Results of a 1-Year Randomized Trial; Journal of interpersonal violence; 2020; 886260520909196

Study details

Study type	Randomised controlled trial (RCT)
Study location	Germany
Study setting	Young children with a history of maltreatment or neglect in foster families
Study dates	Between 2013 and 2017

Duration of follow-up	6 and 12 month follow up
Sources of funding	the German Federal Ministry of Education and Research
Inclusion criteria	Care situation children's placement in a foster family Age 2 to 7 years Reason for care placement a primary allegation of child maltreatment or neglect as indicated by the youth welfare files Time in placement a duration of stay in the current foster family for not longer than 24 months.
Exclusion criteria	Care situation Kinship care
Sample size	81 families (with 87 children in foster care)
Split between study groups	Foster parent training: 44 foster families (with 46 children) Usual care: 37 foster families (with 41 foster children)
Loss to follow-up	by 12 months follow up: Intervention group - 4 foster families with 4 foster children

	Usual care group - 4 foster families with 2 foster children
% Female	not reported for total sample
Mean age (SD)	not reported for total sample
Outcome measures	Mental health outcome 1 Diagnostic Interview of Mental Disorders in Childhood and Adolescents (KinderDIPS). The Kinder-DIPS (Unnewehr et al., 2009 parent version only) is an extended and modified version of the Anxiety Disorders Interview Schedule–Revised (ADIS-R; Di Nardo & Barlow, 1988). Examples were adapted to fit the age range (e.g., ADHD section focusing on peer interactions and tasks more typical for children below the age of 6) and we added a section on attachment disorders based on ICD-10 criteria. With regard to the intervention outcome, authors investigated the presence of a current ICD-10 research diagnosis (yes/no) in children in foster care over time. Mental health outcome 2 Preschool Anxiety Scale (PAS). The total score of a German version of the PAS (Spence et al., 2001) was used to assess symptoms of anxiety in children in foster care. The PAS is an adapted version of the Spence Children's Anxiety Scale (SCAS; Spence, 1998). The 28 items inquire anxiety in preschool children on a 5-point rating scale (0 corresponds to not applying, 4 to applying). The total score is calculated by summing up the item raw values (range: 0 to 112). Larger values represent greater anxiety in children. Relationship outcome 1 Child Relationship Development Inventory (CRDI) and Child Relationship Checklist (CRC). The intensity scores of the CRDI (14 items) and the CRC (16 items) (Briegel et al., 2019) assess positive and negative child relationship investment behaviour. Behavioural problems 1 Eyberg Child Behaviour Inventory (ECBI). The intensity score of the German version of the ECBI (Eyberg & Pincus, 1999) was used to assess external child behaviour problems. The ECBI intensity score consists of 36 items asking parents to rate

	the frequency of specific child behaviour on a 7-point rating (1 = never, 7 = always). The sum of the parent's ratings yields the intensity score with larger values indicating more external child behaviour problems (minimum = 36; maximum = 252). Relationship outcome 2 Dyadic Parent–Child Interaction Coding System 4th edition (DPICS IV). The DPICS IV (Eyberg et al., 2013) is a system for coding observed parent–child interactions that was developed for the evaluation of the Parent Child Interaction Therapy (PCIT; Zisser & Eyberg, 2010). The DPICS-coded observation consisted of two parts: 5 min of child-led play and 5 min of parent-led play. For the evaluation of the TCTP, authors calculated sum scores for dysfunctional parenting behaviour (comprising the DPICS IV-parent codes indirect command, negative talk, and negative touch) and nurturing parenting behaviour (comprising the parent codes behaviour description, reflection, praise, question, and positive touch). Relationship outcome 3 Mother–Child Play Task Observation System (PTOS). The PTOS (Rusby, Sanders et al., 2009) is a standardized behavioural observation system to assess the parent–child interaction. It was additionally selected because it was specifically developed for samples in which lower frequencies of negative child behaviour and dysfunctional parenting are expected. Of the four play task activities described in the PTOS play task script (Rusby, Metzler, & Sanders, 2009), three were applied in the current RCT: (a) a 10-min "Free Play" task including a 5-min interruption by a telephone call, (b) a 5-min "Clean up" task, and (c) up to 10 min of an "Adult-led Teaching" task where children had to complete a puzzle. The forth play task activity, the "Play Dough Play" was not carried out due to time issues. The PTOS-scoring was conducted by blinded research assistants in Braunschweig (different from the ones who coded the DPICS IV). For the analyses, authors calculated sum scores for dysfunctional parenting behaviour (comprising the PTOS-parent codes aversive verbal, vague and aversive directive, and aversive physical) and nurturing parenting behaviour (comprising approval/praise, guide, clear start directive, positive and neutral physical behavior) across the four play tasks within a 1-min time frame.

Study arms

Taking Care Triple P (N = 40)

After randomization, IG foster parents were offered to participate in the TCTP (Chandler & Sheffield, 2013). TCTP is manualized and carried out in five 2.5-hr weekly group sessions followed by two 20-min individual telephone consultations and a closure session (back in the group). It is provided in groups because the group setting is important for networking and mutual support of foster parents. The session contents were as follows: Session 1: Positive parenting; Session 2: Helping children develop; Session 3: Managing misbehavior; Session 4: Building self-esteem and resilience; Session 5: Planning ahead; Sessions 6 and 7: Individual telephone consultations to support parents to put the new learned parenting strategies into practice; Session 8: Closure session. Facilitators already experienced in the Triple P model were trained in this specific approach. The training included a 3-day workshop and regular supervision by Triple P Germany during the group trainings. The group trainings were conducted at the three sites and later also decentralized, closer to the family homes to reduce travel times for the foster families. The TCTP had a mean length of 7.2 weeks (SD = 2.9).

% Female	43%
Mean age (SD)	42.8 ± 18.1 months
Condition specific characteristics	time spent in care Time in current care placement: 17.3 ± 8.3 months Other Other interventions received: Psychotherapy - 17% Psychiatric medication - 2% Both - 2%

Usual Care (N = 34)

Children in foster care usually receive a number of services from the child welfare system on a routine basis; therefore, "usual care" was selected as a control condition for the RCT. Because both, IG and CG had access to all routine "usual care" services but foster families were not assumed to make use of (all) services offered to them, authors controlled for differences in the use of services between the two groups before evaluating the additional benefit of the intervention to the usual care condition

% Female	54%
Mean age (SD)	50.6 ± 19.8 months
Condition specific characteristics	time spent in care time spent in current placement: 18.2 ± 8.5 months Other Use of other support services: Psychotherapy - 12% Psychiatric medication - 0% Both - 0%

Risk of Bias

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Low

Section	Question	Answer
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Low
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Low *(However, although follow up was complete, almost half of those assigned to the intervention group refused to attend the intervention)*
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Low
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low
Overall bias and Directness	Risk of bias judgement	Low
	Overall Directness	Indirectly applicable *(Non-UK study)*

Kim 2011/2013

Study type	Randomised controlled trial (RCT)
Study location	USA

Study setting	Summer programme for girls in foster care
Study dates	Not reported (study published 2011)
Duration of follow-up	36 months
Sources of funding	National Institute of Mental Health US Public Health Service National Institute on Drug Abuse
Inclusion criteria	Age In final year of elementary school Gender Girls Care setting Relative or non-relative foster care Geography Living in one of two counties in the Pacific Northwest
Sample size	100
Split between study groups	48 randomised to intervention group; 52 randomised to control group
Loss to follow-up	3 lost to follow up in intervention group, 7 lost to follow up in control group

% Female	100%
Mean age (SD)	Not reported for total sample
Outcome measures	Number of placement changes Number of care placement changes from baseline to 12 months follow up. Behavioural outcomes Internalising and externalising symptoms defined by caregiver report using the Achenbach System of Empirically Based Assessment (ASEBA). Mean results across 12 and 24 month follow up were reported. Behavioural outcomes 2 At 6 months (Smith 2011) internalising problems. An internalizing problems composite was computed based on five Parent Daily Report items that reflected internalizing behavior (e.g., irritable and nervous/jittery). Behavioural outcomes 2 At 6 months (Smith 2011) externalising problems. An externalising problems composite was computed based on 18 PDR items that reflected externalizing behavior (e.g., argue and defiant). Social outcomes Prosocial behaviour defined by a subscale from the Parent Daily Report Checklist. A prosocial behavior composite was computed based on 11 PDR items that reflected prosocial behavior (e.g., clean up after herself and do a favor for someone). Delinquency Delinquent behaviour and was measured using the Self-Report Delinquency Scale (SRD). Girls association with delinquent peers was defined using a modified version of the general delinquency scale from the SRD. Delinquency was measured at 36 months. Substance use girls were asked how many times in the past year they had (a) smoked cigarettes or chewed tobacco, (b) drank alcohol (beer, wine, or hard liquor), and (c) used marijuana. The response scale ranged from 1 (never) through 9 (daily). Substance use was assessed at 36 months.
Study arms	Middle School Success intervention (N = 48) The MSS intervention was delivered during the summer prior to middle school entry with the goal of preventing delinquency, substance use, and related problems for girls in foster care. The intervention consisted of two primary components: (a) six sessions of group-based caregiver management training for the foster parents and (b) six sessions of group-based skill-building sessions for the girls. The groups met twice a week for 3 weeks, with approximately seven participants in each group. In addition to the summer group sessions, follow-up

	intervention services (i.e., ongoing training and support) were provided to the caregivers and girls in the intervention group once a week for two hr (foster parent meeting; one-on-one session for girls) during the first year of middle school. The interventionists were supervised weekly, where videotaped sessions were reviewed and feedback was provided to maintain the fidelity of the clinical model. The summer group sessions for the caregivers emphasized establishing and maintaining stability in the foster home, preparing girls for the start of middle school, and preventing early adjustment problems during the transition to middle school. The summer group sessions for the girls were designed to prepare the girls for the middle school transition by increasing their social skills for establishing and maintaining positive relationships with peers, increasing their self-confidence, and decreasing their receptivity to initiation from deviant peers. Specifically, the girls' curriculum targeted strengthening pro-social skills; practicing sharing/cooperating with peers; increasing the accuracy of perceptions about peer norms for abstinence from substance use, sexual activity, and violence; and practicing strategies for meeting new people, dealing with feelings of exclusion, and talking to friends and teachers about life in foster care.

Condition specific characteristics	% with disabilities; speech, language and communication needs; or special education needs History of special services: 46.2% % with behaviour that challenges Arrest record 2.1%; history of runaway 4.2%
Outcome measures	Number of placement changes Mean 0.33 changes ± 1.05 Behavioural outcomes Internalising and externalising behaviour score: mean 12.77 ± 8.53 Behavioural outcomes 2 Association between being in the intervention group and foster parent and girl reported internalising problems at 6 months: β -0.28 P<0.01 (adjusted for age, maltreatment history, pubertal development, internalising behaviours at baseline) Behavioural outcomes 3 Association between being in the intervention group and foster parent and girl reported externalising problems at 6 months: β -0.21 P<0.01 (adjusted for age, maltreatment history, pubertal development, externalising behaviours at baseline) Social outcomes Prosocial behaviour score: mean 0.80 ± 0.12. Association between being in the intervention group and foster parent and girl reported prosocial behaviour at 6 months: β 0.15 P>0.05 Delinquency Self-Report Delinquency Scale (SRD): mean 0.30 ± 0.92; Girls association with delinquent peers score: mean -0.17 ± 0.86; Composite delinquency score: mean -0.17 ± 0.57

		Substance use Tobacco use score: mean 1.49 ± 1.63; Alcohol use score: mean 1.49 ± 0.90; Marijuana use score: mean 1.29 ± 0.82; composite substance use score: mean 1.42 ± 0.93

Control group (N = 52)

The girls and caregivers in the control condition received the usual services provided by the child welfare system, including services such as referrals to individual or family therapy, parenting classes for biological parents, and case monitoring.

Condition specific characteristics	**% with disabilities; speech, language and communication needs; or special education needs** History of special services: 36.6% **% with behaviour that challenges** Arrest record: 3.8%; History of runaway: 7.7%
Interventions	**Control 1** 62% percent of girls in the control condition received individual counseling, 20% received family counseling, 22% received group counseling, 30% received mentoring, 37% received psychiatric support, and 40% received other counseling or therapy services (e.g., school counseling, academic support) during the 1st year of middle school
Outcome measures	**Number of placement changes** mean 0.76 ± 1.19 **Behavioural outcomes** internalising/externalising behaviour score: mean 12.50 ± 8.29 **Social outcomes** Prosocial behaviour score: mean 0.74 ±0.14 **Delinquency** Delinquent behaviour score: mean 0.95 ± 2.69; association with delinquent peers score: mean 0.17 ± 1.02; composite delinquency score: mean 0.17 ± 1.06 **Substance use** Tobacco use score: mean 2.36 ± 2.49; Alcohol use score: mean 1.80 ± 1.46; Marijuana use score: mean 2.33 ± 2.43; Composite substance use score: mean 2.16 ± 1.93

Risk of Bias	Domain 1: Bias arising from the randomisation process Some concerns Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention) Low Domain 3. Bias due to missing outcome data Low Domain 4. Bias in measurement of the outcome Low Domain 5. Bias in selection of the reported result High Overall bias and Directness Risk of bias judgement High (High for placement change, prosocial behaviour, and internalising and externalising symptoms outcomes. Some concerns for delinquency and substance use outcomes.)

Messer 2018

Study type	Randomised controlled trial (RCT)
Study location	USA

Study setting	Foster Care
Study dates	not reported
Duration of follow-up	1 month and 3 month follow up
Sources of funding	National Center for Advancing Translational Sciences of the National Institutes of Health
Inclusion criteria	Age 3 to 12 years Care situation In foster care
Sample size	31
Split between study groups	CARE = 15 Control = 16
Loss to follow-up	CARE = 2 Control = 2
% Female	42%
Mean age (SD)	6.7 ± 2.9
Condition specific characteristics	time in care time in current placement 12.2 ± 8.4 months
Outcome measures	Relationship outcome Parent-child interaction mean score (dyadic parent-child interaction coding-IV) at 1 month follow up: number of avoid statements; number of positive statements; Behaviour descriptions; reflections; labeled praise; and unlabeled praise. The Dyadic Parent-Child Interaction Coding-IV (DPICS-IV; Eyberg, Nelson, Ginn, Bhuiyan, & Boggs, 2013) is a structured behavior observation coding system that is used to objectively measure the quality of the parent-child social interaction. The DPICS-IV captures positive parenting statements associated with a strong caregiver-child bond and secure attachment (behavior descriptions, reflections, labeled praises, unlabeled praises) and statements associated with a more negative relationship (questions, negative talk, direct and indirect commands). For this study, four coders who were formally trained on the DPICS-IV system assessed foster caregiver behaviors utilizing a role-play situation at the beginning of the first training session and at the end of the second training session. Coders were blinded to the foster caregiver's training group assignment. The number of statements in each category and

	subcategory was counted. The DPICS demonstrates good interrater reliability (0.91) and discriminant validity (94%) and is highly correlated with parent reports of child behavior problems (r=0.94). Health outcome 1 Trauma symptoms score (Trauma symptom checklist for young children) at 1 month/3 months follow up: Anxiety; Depression; Anger/aggression; Post-traumatic stress-arousal. The Trauma Symptom Checklist for Young Children (TSCYC; Briere, 1996) is a 90-item instrument that assesses trauma-related symptoms in children ages 3 to 12 based on the following subscales: anxiety, depression, anger/aggression, posttraumatic stress – intrusion, posttraumatic stress – avoidance, posttraumatic stress – arousal, dissociation, and sexual concerns. The TSCYC was collected from foster caregivers regarding their foster child's trauma-related symptoms at the beginning of the first training session, at the end of the second training session (one-month), and three months after the first training session either by mail or by email based on the foster caregiver's preference. The foster caregivers were reminded to answer the questions regarding the same foster child reported on at baseline. None of the subscales were scored if they reported on a different child (n=1) or if there was greater than ten missing items (n=1). Individual subscales were not scored if there was greater than three missing items. If the subscale was able to be scored, all missing values were converted to a value of “1”. T-scores and percentiles were calculated. Higher scores indicated worse trauma symptoms in the foster child. T-scores≥70 were considered clinically significant.
Study arms	**Child adult relationship enhancement (CARE): Care Training (N = 13)** 6 - hour training. The first 3 h session of CARE training began with an introduction of the goals and objectives of the training. CARE utilizes adult learning teaching techniques, which includes discussion with respect for caregivers' experience, interactive exercises, and skill practice with feedback. All training materials were standardized, including the CARE trainer manual (Messer et al., 2015), video vignettes, and handouts. As part of the introduction to CARE, a brief overview of children's reactions to trauma was provided. Afterward, a video demonstration roleplay of a 4-year-old child actor and a trainer was shown. In the first role play, the trainer is a foster caregiver who has not yet learned the skills. In the second role play, she is using CARE skills. The foster caregivers were engaged in a discussion about observations of the caregiver-child connection in each role play clip to help set the stage for the introduction of CARE skills. The foster caregivers were then taught the first components of CARE (the “avoid” skills, the “do” skills, and strategic ignoring) when following a child's lead to better connect with them. The “avoid” or “Q” skills are similar to those found in evidence based parenting programs (e.g., Incredible Years, PCIT) as is strategic ignoring. These include: Quash the need to lead, Quit unnecessary questions, and Quiet the criticisms. The “do” skills in CARE are similar to other evidence-based parenting programs and include what is termed “the 3 P's”: Praise (specific praises for appropriate behaviors), Paraphrase (use of reflective listening techniques), and Point Out (attending to positive actions in the child). Foster caregivers were engaged in generating examples that felt natural and comfortable for their own home and culture. CARE skills were taught using a trauma-informed lens so that caregivers better understand how/why the skills may be beneficial to children with a trauma history. Trauma psychoeducation was woven into all of the “do” skills. For example, in discussing the point out behavior skill, it was noted that children with a trauma history often have difficulty with attention and focus (often referred to as increased arousal as part of a Posttraumatic Stress Disorder diagnosis) and that pointing out and commenting on their behaviors may be useful in improving these two areas. CARE training provided skills to improve emotional regulation and decrease additional arousal symptoms (e.g., the combination of selective attention with the “do skills” was taught to address poor anger management, poor frustration tolerance and hyperactivity). The emphasis of one-on-one positive time (often right before bed) was also emphasized to promote a calming effect on the child which may reduce problems with sleep, an additional symptom of arousal. It is important to note however that posttraumatic symptoms of avoidance and intrusive thoughts were not covered in this training as they are thought to be more relevant for a clinician to address in a therapeutic setting, such as in Trauma Focused Cognitive Behavioral Therapy (Cohen, Mannarino, & Deblinger, 2012). For each of the “do” skills and for strategic ignoring, foster caregivers practiced the skills with a partner at their seats with toys

and handouts to assist them. The trainers observed and provided live feedback. The foster caregivers were then taught how to tally the skills using a live feedback sheet of the “do” and “avoid” skills. The foster caregivers divided into small groups and practiced the “do” skills together with a partner role playing as parents and children with toys. Other group members practiced coding the dyads when they were not role-playing. A trainer provided live feedback to each person. Trainers provided live feedback to foster caregivers who were struggling with a particular skill by giving ideas and praising foster caregivers when they were using particular skills well. Examples of each of the skills were given with various ages in mind, and wording and toy choice was adjusted for foster caregivers with older children as needed. During the second three-hour session of CARE, the training focused on teaching how to give good directions. The foster caregivers practiced giving directions that were direct, developmentally appropriate, simple, positively and neutrally stated, with praise for following directions. Again, live feedback was provided to caregivers on their use of appropriate directions.

% Female	40%
Mean age (SD)	6.6 ± 3.0
Condition specific characteristics	Non-white ethnicity 80% Number of care placements 1.0 (IQR 0.0 to 2.0) time in care time in current placement: 449 (IQR 212 to 592) days Type of care treatment foster home: 80%; nontraditional foster home: 33%
Outcome measures	Relationship outcome Association between CARE training and parent-child interaction score (dyadic parent-child interaction coding-IV) at 1 month follow up, median (IQR)/RR (95%CI): avoid statements: 9 (8 to 14)/0.68 (0.47 to 0.98); number of positive statements 13 (10 to 22)/2.98 (1.82 to 4.86); Behaviour descriptions: 2 (0 to 4)/5.17 (95%CI 1. reflections: 5 (2 to 9)/1.72 (1.06 to 2.79); labeled praise: 5 (2 to 9)/16.36 (5.29 to 50.58); unlabeled praise: 3 (1 to 6)/1.57 (0.74 to 3.32). Health outcome 1 Association between intervention group and trauma symptoms score (Trauma symptom checklist for young children) at 1 month/3 months follow up, beta coefficie Anxiety: -6.09 (-13.52 to 1.33)/-10.07 (-18.99 to -1.15); Depression: -9.1 (-19.92 to 1.72)/-11.04 (-23.27 to 1.19); Anger/aggression: -2.53 (-7.49 to 2.43)/-8.06 (-19. Post-traumatic stress-arousal: -4.44 (-11.95 to 3.07)/-6.83 (-16.32 to 2.66)

Standard training (N = 14)

Standard foster parenting training was provided to the foster caregivers who were randomized into the control group. The first training session lasted three hours and focused on the effects of stress and trauma on children and the links between toxic stress and the toxic triad (cruelty to animals, child abuse, and domestic violence). Foster caregivers briefly illustrated with stick figures their current family configuration including the sex and ages of their biological children, foster children, and pets. On a flip chart, they listed all the stressful/traumatic events their foster

	children had experienced, and the prevalence of such events was discussed. Next, they listed and discussed the “troubling” behaviors they saw in their foster children that they believed to result from exposure to stress, violence, and trauma. Then, they filled out an ACE survey on their foster child, followed by a presentation on the Adverse Childhood Experiences (ACE) study (Felitti et al.,1998), the concept of toxic stress, and the impact on brain development, health outcomes and behavior, especially self-regulation. Finally, the toxic triad was presented to illustrate that exposure to animal cruelty is embedded in many adverse childhood experiences and such exposure potentially intensifies the impact of adverse experiences and the risk of developing toxic stress. The second three-hour training session was created using materials from two existing foster caregiver curricula: the Ohio Child Welfare Training Program foster caregiver curriculum (Ohio Child Welfare Training Program, 2007) and the Trust-Based Relational Intervention (TBRI) video series (Parris et al., 2015). Foster caregivers were asked to describe a behavior problem they had recently been struggling with for the children in their home. Caregivers then watched TBRI video segments discussing the impact of trauma on the brain and the link between trauma and behavior. Caregivers brainstormed as a group what traumatic events might be contributing to the behavior problems of the children in their homes and then completed some experiential exercises to illustrate different responses to traumatic experiences in line with the fight/flight/freeze reaction to stress. The session ended with a discussion on coping with challenging behaviors.	
	% Female	44%
	Mean age (SD)	6.8 ± 3.0
	Condition specific characteristics	Non-white ethnicity 44% Number of care placements number of prior placements: 1.5 (IQR 0.5 to 3.5) time in care time in current placement 286 (IQR 133 to 466) days Type of care Treatment foster home = 75%, nontraditional foster care placement = 31%
	Outcome measures	Relationship outcome Parent-child interaction median score (IQR) (dyadic parent-child interaction coding-IV) at 1 month follow up: number of avoid statements: 15 (6 to 23); number of p statements 6 (3 to 7); Behaviour descriptions: 0 (0 to 0); reflections: 3 (2 to 4); labeled praise: 0 (0 to 0); and unlabeled praise: 2 (1 to 4).
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Low **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low **Domain 3. Bias due to missing outcome data**	

	Low **Domain 4. Bias in measurement of the outcome** Low **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** Low **Overall Directness** Partially applicable (USA study)

Mezey 2015

Study type	Randomised controlled trial (RCT)
Study location	UK
Study setting	Female looked after children and care leavers
Study dates	2011 to 2013
Duration of follow-up	12 months post baseline
Sources of funding	the Health Technology Assessment programme of the National Institute for Health Research.
Inclusion criteria	Age

	aged 14 to 18 years Care situation currently under the care of the LA in children's homes or with foster carers or were care leavers. Caregivers Young women were considered eligible to participate as mentors if they met the following criteria: they were aged between 19 and 25 years; they had experienced the care system; they were deemed safe to work with children and vulnerable young people by having a satisfactory Criminal Records Bureau check (now referred to as the Disclosure and Barring Service (DBS)) gender female
Sample size	26
Split between study groups	Intervention: 13 Care as Usual: 13
Loss to follow-up	Intervention: 2 Care as Usual: 5
% Female	100%
Mean age (SD)	not reported for total sample
Outcome measures	Mental health outcome 1 Symptoms of anxiety or depression. General Health Questionnaire – 12-item scale to detect symptoms of anxiety or depression. A score of ≥ 4 defines common mental disorder with a maximum score of 12 indicating a high likelihood of psychiatric illness. Relationship outcome Attachment style. Attachment style questionnaire – Self-report questionnaire classifying four attachment styles: secure, fearful, dismissive and preoccupied. Good reliability and validity, including for use with adolescents.

	Strengths outcome 1 Self-determination. Locus of control – This 29-item scale was shortened to a 10-item scale to ensure that it was appropriate for the young people participating. It measures generalised expectancies for internal compared with external control of reinforcement (internal locus of control characterises those seeing their own actions determining life events; external locus of control characterises those seeing events in life as generally outside their control). Scores range from 0 to 13, with a low score indicating internal control and a high score indicating external control. Wellbeing outcome 1 Self-esteem. Self-Esteem Scale – 10-item self-report measure of global self-esteem. Answers are given on a 4-point scale ranging from 'strongly agree' to 'strongly disagree', with a higher score indicating greater self-esteem. This measure has demonstrated reliability and validity with young people. Health outcome 1 Teenage pregnancy during study follow-up
Study Arms	**Peer Mentoring Intervention (N = 11)** Mentor selection. Individual qualities most likely to be associated with being a successful mentor were being non-judgemental, empathetic and a good listener, being able to act as an appropriate and positive role model, being committed and able to meet the demands of the role. Local Authority (LA) staff were asked to select young people who they felt were appropriate based on these criteria and professional knowledge. Project coordinators (PCs) were asked to ensure that there was enough time for DBS checks to be completed on potential mentors. Mentor training. In spring/summer 2011 the research team met with National Children's Bureau training staff and managers to discuss and finalise the content of the 3.5-day mentor training course. Key aspects to be covered during training were the expectations of the mentoring role, confidentiality and safeguarding, maintaining boundaries, facilitating help-seeking behaviour and dealing with difficulties. Because of the lack of consistent evidence on attributes that mentors and mentees should be matched on, PCs were advised, as a minimum, to match mentors and mentees on the basis of geographical proximity. A 5-year age differential between mentor and mentee was specified, on the basis that mentors might experience more difficulty in maintaining an appropriate emotional distance in the relationship if they were too close in age to their mentee. The PCs were given responsibility for recruiting mentors and mentees, managing the contacts and providing support to mentors through monthly group meetings. PCs were asked to commit a minimum of 3 hours a week to the role. Monthly support group meetings with the mentors were created for the purposes of monitoring relationships, identifying concerns, giving out monies for activities and identifying additional training needs. PCs were asked to facilitate a three-way meeting with the mentor and mentee at the start of the intervention, to ensure that the aims, roles, responsibilities, length and boundaries of the relationship were

	clearly understood. Mentors were asked to spend at least 1 hour of face-to-face contact time per week with their mentee over a 12-month period. They were also encouraged to contact their mentee on an ad hoc basis, by telephone, e-mail or text message. Mentors were advised to give mentees the number of the mobile phone provided to them by the research team, rather than their personal contact details. They received a monthly stipend of up to £40 a month to pay for any leisure, social or other activities with their mentee and to cover travel expenses. In relation to the intervention's primary outcome, reducing teenage pregnancy, mentors were asked to discuss issues relating to sexual health and relationships when they felt that this was appropriate or if raised by the mentee. Mentors were advised to encourage their mentees to seek help for troubling issues (e.g. sexual health, substance use, criminal activity, mental health) using knowledge of local services or by asking professionals and, if required, to accompany their mentee to any subsequent appointments. Mentors were asked to end the relationship in a carefully planned and managed way, to ensure that the mentee was clear about the length of the relationship from the outset and to ensure that the mentee was able to identify a support network post mentoring relationship. Towards the end of the mentoring period, mentors were asked to identify any additional or unmet support needs for their mentee and to discuss these with the PC.

Split between study groups	Intervention: 13 Care as Usual: 13
Loss to follow-up	Intervention: 2 Care as Usual: 5
% Female	100%
Mean age (SD)	16.4 ± 1.4 years
Condition specific characteristics	Non-white ethnicity 59%

		Learning disability or special educational need truanted in lifetime: 65%; suspended/expelled in lifetime: 29% **Number of care placements** median (range): 2.5 (1 to 8) **Type of care** foster home: 53%; with relatives or friends: 6%; hostel/YMCA: 29%; other 12% **Mental health needs** self-harmed in lifetime: 53%; attempted suicide in lifetime: 18% **Criminal outcomes** contact with police in lifetime: 59%
	Outcome measures	**Mental health outcome 1** Symptoms of anxiety or depression (scoring >=4 on the General Health Questionnaire): 5/11 (45%) **Mental Health outcome 2** emotional health rated ok or better: 10 (91%) **Mental health outcome 3** during study year: self-harm: 4 (40%); suicide attempt: 1 (11%) **Relationship outcome** Attachment style (Attachment style questionnaire): secure: 4 (36%); fearful: 3 (27%); dismissing: 4 (36%) **relationship outcome 2** unable to trust anyone: 5/11; unlikely, or more than unlikely, to seek help from no one for a personal or emotional problem: 82% **Strengths outcome 1** Self-determination (change in Locus of control) since baseline, mean (95%CI): 0.4 (-1.4 to 2.2) **Wellbeing outcome 1** Self-esteem (Self-Esteem Scale) change in self-esteem from baseline, mean (95%CI): -3.0 (-6.2 to 0.2) **Health outcome 1** Teenage pregnancy during study follow-up: 0, 0%

	Health outcome 2 Attitudes to pregnancy: At follow-up, participants were asked to state the youngest age at which they thought it would be all right to have a baby. The mean age reported by the intervention group was 17.0 ± 2.8 years **Health outcome 3** Attitude to pregnancy: At follow-up, three (27%) in the intervention group reported that they would feel happy/excited if they found out they were pregnant now **Health outcome 4** physical health rated OK or better: 8 (73%) **Health outcome 5** Substance abuse in last year: used at least one substance in last year: 4 (36%); drank alcohol fortnightly or more often in last year: 4 (36%); anyone riased concerns over drinking: 2 (18%); drank six or more units on at least one occasion in the last year: 5 (45%); currently smoke regularly: 3 (27%) **Health outcome 6** Healthcare interaction in the last year: seen sexual health practitioner: 6 (55%); seen doctor more than 6 times in the last year: 2 (18%) **educational outcome** over the study year: full time education or training: 8 (73%); part-time work: 1 (9%); other: 2 (18%). Truanted in the last year: 4 (36%); suspended/expelled in the last year: 3 (27%) **Criminal outcome** contact with police in the last year: 4 (36%); cautioned/convicted: 3 (27%); contact with Youth Offending Team in the last year: 2 (18%)

Care as usual (N = 8)

Those in the usual support arm received the services already available to them because of their status as a looked-after young person. These services aim to promote their educational achievement, physical health and social and emotional well-being.

Split between study groups	Intervention: 13 Care as Usual: 13

Loss to follow-up	Intervention: 2 Care as Usual: 5
% Female	100%
Mean age (SD)	16.7 ± 1.4 years
Condition specific characteristics	Non-white ethnicity 69% Learning disability or special educational need truanted in lifetime: 92%; suspended/expelled in lifetime: 69% Number of care placements median (range): 1 (1 to 15) Type of care foster home: 54%; with relatives or friends: 15%; Hostel: 23%; other: 8% Mental health needs self-harm in lifetime: 46%; attempted suicide in lifetime: 23% Criminal outcomes contact with police in lifetime: 62%
Outcome measures	Mental health outcome 1 Symptoms of anxiety or depression (scoring >=4 on the General Health Questionnaire): 3/6 (50%) Mental Health outcome 2 emotional health rated ok or better: 7 (88%) Mental health outcome 3 during study year: self-harm: 0 (0%); suicide attempt: 0 (0%)

Relationship outcome
Attachment style (Attachment style questionnaire): secure: 2 (33%); fearful: 3 (50%); dismissing: 1 (17%)

relationship outcome 2
unable to trust anyone: 38%; unlikely, or more than unlikely, to seek help from no one for a personal or emotional problem: 83%

Strengths outcome 1
Self-determination (change in Locus of control) since baseline, mean (95%CI): 0.3 (-3.0 to 3.7)

Wellbeing outcome 1
Self-esteem (Self-Esteem Scale) change in self-esteem from baseline, mean (95%CI): -0.3 (-4.4 to 3.7)

Health outcome 1
Teenage pregnancy during study follow-up: 0, 0%

Health outcome 2
Attitude to pregnancy: At follow-up, participants were asked to state the youngest age at which they thought it would be all right to have a baby. The mean age reported by the usual support group was a mean of 17.8 (SD 1.8) years

Health outcome 3
Attitude to pregnancy: at follow-up, none of the usual support group said that they would feel happy or excited if they found out they were pregnant now

Health outcome 4
physical health rated OK or better: 8 (100%)

Health outcome 5
Substance abuse in last year: used at least one substance in last year: 3 (38%); drank alcohol fortnightly or more often in last year: 1 (13%); anyone raised concerns over drinking: 0 (0%); drank six or more units on at least one occasion in the last year: 3 (38%); currently smoke regularly: 2 (25%)

Health outcome 6
Healthcare interaction in the last year: seen sexual health practitioner: 5 (71%); seen doctor more than 6 times in the last year: 5 (63%)

educational outcome
Over the study year: full time education or training: 6 (75%); part-time work: 1 (13%); other: 1 (13%). Truanted in the last year: 3 (38%); suspended/expelled in the last year: 1 (13%)

Criminal outcome
contact with police in the last year: 0 (0%); cautioned/convicted: 0 (0%); contact with Youth Offending Team in the last year: 0 (0%)

Risk of Bias	**Domain 1: Bias arising from the randomisation process** Low **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low **Domain 3. Bias due to missing outcome data** Low **Domain 4. Bias in measurement of the outcome** High **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** High (Not blinded. The study involves children disclosing details of a very personal nature. The participants might find it easier to tell a white lie than withdraw from the study.) **Overall Directness** Directly applicable

Midgley 2019

Study Details

Study type	Randomised controlled trial (RCT)
Study location	UK
Study setting	a Child and Adolescent Mental Health Services (CAMHS) Targeted team within a single NHS Trust.
Study dates	Not reported
Duration of follow-up	24 weeks
Sources of funding	the National Institute for Health Research (NIHR)
Inclusion criteria	Care situation Children in foster care Age aged between 5 and 16 Mental health referred to the Targeted CAMHS and a Strengths and Difficulties Questionnaire (SDQ) score that indicated some level of difficulty (≥13). Children and their foster carers were included in the study if, following an initial consultation with the Targeted CAMHS team, they were considered to be a suitable referral for the Service (e.g. not if the child was about to move to a new placement in a different area). Time in placement who had been with their current foster carer for at least 4 weeks
Exclusion criteria	Mental health

	Participants were excluded if they were signposted to another service, e.g. an emergency/crisis referral requiring psychiatric assessment, or if they were in need of a different treatment (e.g. an educational psychology assessment) within or outside of CAMHS.
Sample size	36
Split between study groups	Mentalisation-Based Therapy = 15 Usual Clinical Care = 21
Loss to follow-up	Mentalisation-Based Therapy = 2 Usual Clinical Care = 1
% Female	44%
Mean age (SD)	10.6 ± 2.7 years
Condition specific characteristics	non-white ethnicity 11% Type of care Type of care order Full = 83% Interim = 14% Voluntary = 3% time spent in care

	2.4 ± 2.5 years in foster care, age first in care = 4.8 ± 3.3 years Placement changes Number of previous placements, median (range) = 1 (0/10)
Outcome measures	Mental health outcome 1 Total Strengths and Difficulties Questionnaire (foster carer-report) including the internalising and externalising sub-scale Mental health outcome 2 Total Strengths and Difficulties Questionnaire (young person self-report) including the internalising and externalising sub-scale

Study Arms

Mentalisation-based therapy (N = 13)

MBT is a short-term manualized treatment, offering up to 12 weekly sessions, and delivered in a family format by existing clinicians working in the Targeted CAMHS team. The approach includes a combination of psychoeducation about attachment and mentalizing in children with histories of maltreatment; consultations with the professional network around the child, when required; and direct relational work, tailored to the needs of each foster family, aimed at helping foster families understand their foster child's needs and feelings, encouraging sensitive parenting and tackling problematic patterns of foster family interaction. This manualized adaptation of MBT paid particular attention to promoting mentalizing in the foster carer and developing reflective practice for all professionals working with the referred child.

% Female	47%
Mean age (SD)	11.1 ± 2.2 years

Condition specific characteristics	non-white ethnicity 7% Type of care Type of care order Full = 93% Interim = 7% Voluntary = 0% time spent in care 3.1 ± 2.7 years in foster care, age first in care = 4.4 ± 3.3 years Placement changes Number of previous placements, median (range) = 2 (0 - 7)

Usual Clinical Care (N = 21)
Participants in the usual care arm were offered up to 12 weekly sessions of therapy by the Targeted Team. Clinicians employed by the Targeted CAMHS team have varied training, including social work and clinical psychology. Decisions for what therapy to use for each child as part of usual care were made on the basis of the service's usual practice, which was based on the 'Choice and Partnership Approach'. Usual care consisted of a mix of other therapeutic techniques, including cognitive behavioural therapy, play therapy and theraplay.

% Female	43%
Mean age (SD)	10.2 ± 3.0 years

Condition specific characteristics	non-white ethnicity 14% Type of care Type of care order Full = 76% Interim = 19% Voluntary = 5% time spent in care 1.9 ± 2.3 years in foster care, age first in care = 5.2 ± 3.3 years Placement changes Number of previous placements, median (range) = 1 (0 - 10)

Risk of Bias

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Low
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Low

Section	Question	Answer
Domain 2b: Risk of bias due to deviations from the intended interventions (effect of adhering to intervention)	Risk of bias judgement for deviations from the intended interventions (effect of adhering to intervention)	*This question has not yet been answered.*
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	High *(for young person-reported outcomes around a third were missing from follow up in the intervention group and almost a half in the usual care group. Mental health and follow up are likely related.)*
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Low
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low
Overall bias and Directness	Risk of bias judgement	High *(For youth-reported outcomes only. Low for carer-reported outcomes)*
	Overall Directness	Directly applicable

Minnis 2001

Study type	Randomised controlled trial (RCT)
Study location	UK

Study setting	Children in foster care
Study dates	May 1996 to December 1998
Duration of follow-up	postintervention, 9 months
Sources of funding	the Wellcome Trust
Inclusion criteria	Age aged 5 to 16 years Care situation Foster care; likely to be in placement for a further year
Sample size	182 children
Split between study groups	Intervention = 76 Control = 106
Loss to follow-up	Intervention = 14 Control = 18
% Female	not reported for total sample
Mean age (SD)	not reported for total sample
Condition specific characteristics	Exploitation or maltreatment 93% of children had suffered previous abuse or neglect

	Mental health needs over 60% had some degree of psychopathology.
Outcome measures	Social-emotional outcome Self-esteem mean score (Modified Rosenberg Self-esteem Scale) at 9 months follow up. Relationship outcome Reactive attachment mean score (Reactive Attachment Disorder Scale) at postintervention/9-month follow up. Reactive Attachment Disorder Scale (RAD). This 17 item questionnaire for attachment disorders gives an overall score ranging from 0 to 51. It has good internal consistency with a Cronbach's alpha of 0.70, test–retest reliability (repeat questionnaire completion after approximately one month) of 0.77, and interrater reliability (between parents) of 0.81. Strengths outcome 1 Strengths and Difficulties mean score (Strengths and Difficulties Scale) at 9 months follow up, foster carer reported/teacher reported/child self-report: carers, teachers, and children completed the Strengths and Difficulties Questionnaire (SDQ). This 25 item screening instrument for child psychopathology gives an overall score (range 0 to 40) and subscale scores (range 0 to 10) for hyperactivity, conduct problems, emotional problems, peer problems, and prosocial (caring, helpful) behaviour.
Study Arms	**Foster carer training (N = 62)** The training, developed in a qualitative pilot study, was based on Communicating with children: helping children in distress, a Save the Children manual used internationally. It was delivered by an experienced social worker/trainer. Families were randomly allocated to standard services alone or to extra training. Training sessions ran for six hours per day, the first two days running consecutively with a follow up day one week later. Didactic material was followed by group discussion utilising carers' own experience. At the end of days 1 and 2, tasks were set for discussion at the beginning of the next training day. Of those randomised to the intervention group, 48% did not attend the extra training.

Study type	Randomised controlled trial (RCT)
Study location	UK
Study setting	Children in foster care
Study dates	May 1996 to December 1998

Duration of follow-up	postintervention, 9 months
Sources of funding	the Wellcome Trust
Inclusion criteria	Age aged 5 to 16 years Care situation Foster care; likely to be in placement for a further year
Sample size	182 children
Split between study groups	Intervention = 76 Control = 106
Loss to follow-up	Intervention = 14 Control = 18
% Female	32%
Mean age (SD)	10.9 ± 3.1
Condition specific characteristics	Learning disability or special educational need physical disability: 6%; learning disability: 15% Exploitation or maltreatment previously abused: 46%; previously neglected: 42%; previously abused or neglected: 49%

	Number of care placements median number previously placed in foster home **Mental health needs** Children classes as psychiatric cases on SDQ: 56%
Outcome measures	**Social-emotional outcome** Self-esteem mean score ± SD (Modified Rosenberg Self-esteem Scale) at 9 months follow up: 31 ± 5 **Relationship outcome** Reactive attachment mean score (Reactive Attachment Disorder Scale) at postintervention/9-month follow up: 21 ± 8/21 ± 9 **Strengths outcome 1** Strengths and Difficulties mean score (Strengths and Difficulties Scale) at 9 months follow up: foster carer reported: 18 ± 8; teacher-reported: 16 ± 8; child self-report: 15 ± 8

Care as usual (N = 88)

Those in both the control and intervention groups received whatever training and support was offered by social work departments during the course of the study. Excluding the intervention, the mean hours of training attended by carers during the study was six (range 0 to 42); 48% had attended none.

% Female	47%
Mean age (SD)	11.6 ± 3.27
Condition specific characteristics	**Learning disability or special educational need** Physical disability: 4%; learning disability: 22% **Exploitation or maltreatment** previously abused: 76%; previously neglected: 61%; previously abused or neglected: 79% **Number of care placements**

	Median number of children previously placed in foster home: 14 Mental health needs 59% classed as psychiatric cases on the SDQ: 59%
Outcome measures	Social-emotional outcome Self-esteem mean score (Modified Rosenberg Self-esteem Scale) at 9 months follow up: 32 ± 6 Relationship outcome Reactive attachment mean score (Reactive Attachment Disorder Scale) at postintervention/9-month follow up. Reactive Attachment Disorder Scale (RAD): 17 ± 9/18 ± 9 Strengths outcome 1 Strengths and Difficulties mean score (Strengths and Difficulties Scale) at 9 months follow up, foster carer reported/teacher reported/child self-report: 16 ± 8/10 ± 7/12 ± 7
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Low **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low **Domain 3. Bias due to missing outcome data** Low **Domain 4. Bias in measurement of the outcome** Low **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness**

	Low **Overall Directness** Directly applicable

Moody 2020

Study details

Study type	Randomised controlled trial (RCT) pragmatic randomised controlled trial
Study location	Wales (UK)
Study setting	Participants were local authority foster carers, those recruited through independent or not-for-profit agencies, or kinship carers in Wales. Participants could either self-select by responding to a postal invite, or were nominated by provider agencies. Provider agencies selected participants to nominate based on various criteria, some of which were locally determined. These included perceived needs of a foster carer, or apparent availability based on absence of competing commitments.
Study dates	January 2016 and April 2017
Duration of follow-up	12 months follow up
Sources of funding	The Big lottery Fund
Inclusion criteria	Carer

	Local Authority Foster carers - Participants could either self-select by responding to a postal invite, or were nominated by provider agencies. Provider agencies selected participants to nominate based on various criteria, some of which were locally determined. These included perceived needs of a foster carer, or apparent availability based on absence of competing commitments. [Authors sought to recruit sufficient carers to fill the group to the desired capacity (n = 18). However, when this was not possible, participation in the programme was supplemented by allowing some non-trial participants to also attend the group. Which foster carers were invited to attend as non-trial participants was arranged by the local provider agency.]
Sample size	312 randomised
Split between study groups	Fostering Changes - 204 Usual Care - 108
Loss to follow-up	Fostering Changes - 38 Usual Care - 29
% Female	not reported for total sample
Mean age (SD)	not reported for total sample
Outcome measures	Mental health outcome 1 Foster child's social, emotional and behavioural adjustment: Strengths and Difficulties Questionnaire (SDQ) (Goodman 2001) measured at 12 months. The Strengths and Difficulties Questionnaire (SDQ) (Goodman 2001) is a measure of adjustment and psychopathology of children and adolescents. It consists of 25 traits, comprising five sub-scales: Emotional Symptoms, Conduct Problems, Hyperactivity-Inattention, Peer Problems, and Pro-social Behaviour. It has been widely used as a research screening tool and its validity has been confirmed in analyses of many different populations.

	Educational outcome 1 Carer-reported child engagement with education Relationship outcome 1 Foster Child's attachment relationship with foster carer: The Quality of Attachment Relationships Questionnaire (QUARQ) measured 12 months postrandomisation. The Quality of Attachment Relationship Questionnaire (QUARQ) is an assessment of the attachment relationship between carer and foster child. Derived from key concepts that define our understanding of attachment theory, it includes items which tap into the child's ability to show or accept affection, to trust the carer, and whether the child seeks help from their carer under stressful conditions. It also asks about the carer's understanding of the child's feelings. This measure was devised by our in-house research team. Behavioural problems 1 Child Behaviour Problems: The Carer-Defined Problems Scale measured at 12 months post-randomisation. The Carer-defined Problems Scale (Scott et al, 2001) asks carers to list their foster child's three main problems, and then to indicate how severe the problems by placing a mark on a 10 cm line. Data from this measure has been shown to be a very useful indicator of pre-and post-intervention change. Placement stability 1 Rates of unplanned placement changes at 12 months

Study arms

Fostering Changes (N = 153) Each FC programme comprises 12 weekly group-based sessions lasting three hours for up to 12 carers and a support group meeting designed to reinforce and maintain learning in each of the first three terms following course completion (Briskman et al., 2012; Moody et al., 2018). Adherence was defined following guidance from the intervention developers as attending eight or more sessions out of a possible 12 (including sessions three and four which focus on praise and positive attention and are central to course ethos). Where facilitators merged sessions 11 and 12,

adherence was attending seven sessions out of 11 (including sessions three and four). Local social workers joined some groups as participants, an addition to the original FC model.

% Female	84.7% (carers)
Mean age (SD)	52.5 ± 8.23 (carers)
Condition specific characteristics	Type of care Local authority - 75.9% Independent not-for-profit organisation - 18.6% Kinship or family - 5.5% time spent in care Time spent as a carer - 7.9 ± 6.83 years Other Number of currently placed foster children 1 - 38.2% 2 - 44.1% 3 plus - 17.6%
Interventions	Intervention 1 Recent training (past 3 months) - 59.6% Intervention 2

	Types of training - Foster carer role - 21.7% Child and adolescent development - 6.4% Behaviour - 8.4% Managing conflict - 5.4% Mental health - 4.9% General safety and health - 9.4% Relationship - 2.4% Safeguarding - 14.3% Sexual abuse and exploitation - 5.9% Substance misuse - 4.9% Attachment - 13.3%

Usual Support (N = 76)
The comparator was usually-provided support and advice with carers offered the opportunity to attend FC 12 months after recruitment. Usually provided support and advice services include, but are not restricted to, support from the local fostering team, access to The Fostering Network helpline, universal health and education services, and locally organised foster carer support groups.

Condition specific characteristics	Type of care Local authority - 73.6% Independent not-for-profit organisation - 17.9% Kinship or family - 8.5% time spent in care time spent as a carer - 6.8 ± 5.45 years Other Number of currently placed foster children 1 - 44.4% 2 - 33.3% 3 plus - 22.3%
Interventions	Intervention 1 Recent training (past 3 months) - 61.7% Intervention 2 Types of training - Foster carer role - 18.7% Child and adolescent development - 7.5% Behaviour - 7.5%

	Managing conflict - 6.5% Mental health - 4.7% General safety and health - 9.3% Relationship - 10.3% Safeguarding - 11.2% Sexual abuse and exploitation - 6.5% Substance misuse - 7.5% Attachment - 14.0%

Section	**Question**	**Answer**
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Low
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Some concerns *(Unclear fidelity to the intervention or if crossover occurred)*
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Some concerns *(There was substantial loss to follow up at 12 months (around 20 - 25%) this may be related to problems at home, however proportions of loss to follow up were similar between groups. In addition, this was a pragmatic trial by design and intention to treat was used for analysis.)*

Section	Question	Answer
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Low
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low
Overall bias and Directness	Risk of bias judgement	Some concerns
	Overall Directness	Directly applicable

Nelson 2013

Study type	Randomised controlled trial (RCT) See also This study describes a subsample of a previous larger randomised controlled trial Pasalich 2016/Spieker 2014/Spieker 2012 (see RQ 2.1)
Study location	USA
Study setting	Children in a court-ordered placement that resulted in a change in primary caregiver
Study dates	April 2007 to March 2010
Duration of follow-up	postintervention
Sources of funding	National Institute of Mental Health and the National Institute of Child Health and Human Development.

Inclusion criteria	Care situation In state dependency and who experienced a court-ordered placement that resulted in a change in primary caregiver within the 7 weeks prior to enrollment. Eligible caregivers spoke English and included foster parents (n = 89), biological parents (n = 56), or adult kin (n = 65). AND had experienced a change in caregiver within seven weeks of the baseline research visit. Age aged between 10 - 24 months
Sample size	48
Split between study groups	Promoting First Relationships: 21 Early Education Support: 25
Loss to follow-up	total loss to follow up was 6 (from n=54), unclear how many were lost to follow up per arm of the study
% Female	not reported
Mean age (SD)	17.10 ± 4.31 months
Condition specific characteristics	non-white ethnicity Sub-sample participants reported their race as White (68.8%), Black (16.7%), American Indian (12.5%), and Hawaiian Native (2.1%). Type of care At baseline, 37.5% of the children in this sub-sample were living with a foster parent, 37.5% had been returned to their birth parent, and 25.0% were living with a family member. Placement changes The average number of primary caregiver changes experienced by participants from birth to enrollment in the study was 3.31. Reported outcomes "No treatment effects were in evidence for morning cortisol levels in this sample."
Outcome measures	Health outcome 1

	Morning cortisol level: A research home visitor collected saliva samples from the toddlers in the study using the passive drool method, or collection of the saliva that naturally pools in the mouth, with an absorbent, sterile cotton dental roll. The first five saliva samples (S1 – S5) were collected at baseline as follows: 1) on arrival (S1); 2) just before the brief separation conducted at the beginning of the research visit in which the caregiver left the house or apartment for three minutes (based on the three-minute separation used in the laboratory based Strange Situation), and returned (S2); 3) 30 minutes after the separation (S3); and 4) 45 minutes after the separation (S4). The following morning, caregivers were instructed to obtain a fifth sample (S5) within 30 minutes of the child waking up and before eating or drinking. The second five saliva samples (S6–S10) were collected at post-intervention in exactly the same manner. The morning samples were placed in the family's freezer (not in the door) and collected by the research visitor the same day. An ANCOVA model was estimated to assess differences by experimental condition in the child's morning cortisol level post-intervention. Covariates included child's age, time of day, and baseline morning cortisol level, transformed using a log transformation to reduce the impact of outliers. Health outcome 2 Stimulated cortisol pattern after the strange situation (likelihood of decreasing cortisol pattern vs flat; increasing cortisol pattern vs flat; and increasing cortisol pattern vs decreasing): Multinomial logistic regression (Hosmer & Lemeshow, 1989) was used to examine the association between post-intervention cortisol pattern and intervention group. The categorical dependent variable representing the pattern of cortisol activity during the course of the research visit (Flat, Increasing or Decreasing) was predicted from intervention group, controlling for time of day, child's age, morning cortisol level, and flat or not flat cortisol pattern observed at baseline. Morning cortisol levels were transformed using a log transformation to reduce the impact of outliers. All predictors were entered into the analysis at the same time.
Study arms	**Promoting First Relationships (N = 21)** Caregiver-toddler dyads randomized to the PFR intervention were offered ten weekly 60- to 75-minute in-home visits by a masters-level mental health provider from one of several local agencies. Seventy one percent of the caregivers received all ten sessions. The sessions focused on increasing parents' sensitivity using attachment theory-informed and strength-based consultation strategies. For instance, reflective video feedback was included in five sessions using taped episodes of caregiver-child play or caregiving behavior, wherein the PFR provider guided discussion concentrating on parenting strengths and interpretation of the child's cues. Across the sessions a variety of handouts were reviewed pertaining to topics such as "Staying Connected During Difficult Moments." This aspect of the curriculum promoted caregivers' understanding that toddler challenging behavior often reflects underlying unmet attachment needs (e.g., safety and comfort). PFR providers received 90 hours of training (including supervision) over six months, and there was good implementation fidelity.
	Early Education Support (N = 25) Those randomized to the comparison condition received Early Education Support (EES) through bachelor-prepared providers from a local community agency. EES consisted of three monthly 90-minute, in-home sessions facilitated by a child development specialist, who focused on child developmental guidance and resource and referral. The provider made suggestions for activities that would stimulate the child's cognitive and language development and assisted the caregiver to find services in the community, such as Early Head Start, for which the family was eligible. The PFR group did not receive

	these types of resource and referral suggestions from the PFR providers. However, families were not prohibited from seeking and utilizing any additional services to which they were entitled. That only PFR providers used relationship-focused consultation strategies (positive feedback; positive and instructive feedback; reflective comments or questions; and validating, responsive statements) and video feedback was verified in regular fidelity checks of both PFR and EES providers.
Risk of Bias	**Domain 1: Bias arising from the randomisation process** High (In the original trial: Unclear if allocation concealment. participants in PFR were more likely to have been removed from birthparents home more than once. However, in this trial a subsample was chosen from the larger trial. Baseline characteristics were not presented for this subgroup therefore it is not possible to tell whether there were significant differences for important characteristics.) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low (no deviations reported and analysis was modified intent to treat) **Domain 3. Bias due to missing outcome data** High (There are significant amounts of missing data post-randomisation, since this was a subsample of a larger trial. However, in addition to this 57 participants were eligible to participate in this subsample and did not contribute to analysis. The study does not compare intervention groups for missing data or report baseline characteristics therefore it is difficult to say that randomisation was not broken or that data were missing at random.) **Domain 4. Bias in measurement of the outcome** Low (No blinding procedures described, however, outcomes were objective. Analysis was adjusted for time of day (cortisol collection))

	Domain 5. Bias in selection of the reported result Some concerns (Study does not report raw data of cortisol levels (means SD) at follow up) **Overall bias and Directness** High **Overall Directness** Indirectly applicable (USA)

Oman 2016

Study type	Cluster randomised controlled trial
Study location	USA
Study setting	Youth living in group home settings
Study dates	2012 to 2014.
Duration of follow-up	postintervention (6-weeks postbaseline)
Sources of funding	Department of Health and Human Services, Administration for Children and Families.

Inclusion criteria	Care situation youth living in group homes overseen by the child welfare (CW) (foster care) and/or Juvenile Justice (JJ) systems. A “group home” is considered a congregate care residential facility operated or contracted by a state child welfare agency, a state juvenile justice agency, or by a private care provider Age age 13-18 years
Exclusion criteria	Intervention leaving the intervention or control group home before the conclusion of the intervention; previous participation in the program; ongoing therapy related to prior abuse Attendance youth employment that would make attendance sporadic
Sample size	952
Split between study groups	Randomised PTC = 517 (40 clusters) CAU = 519 (40 clusters)
Loss to follow-up	PTC = 49 CAU = 36
% Female	"majority male"
Mean age (SD)	mean 16.2 years
Condition specific characteristics	non-white ethnicity 80%

Outcome measures	Health outcome 1 Attitudes toward using protection (Many items were from the Youth Risk Behavior Surveillance System or from the Prevention Minimum Evaluation Data Set): The survey included 11 items that measured youth attitudes toward various methods of protection and using protection [19,21]. Two attitudes constructs were created: Support for methods of protection and barriers to methods of protection Health outcome 2 Behavioral intentions regarding sexual activity (the Youth Risk Behavior Surveillance System or from the Prevention Minimum Evaluation Data Set). Three items assessed intentions toward sexual activity [22]. The items determined the participants' behavioral intentions regarding having sexual intercourse in the next year; using a condom (or their partner using a condom) if they had sexual intercourse; and using other methods of protection, such as birth control pills, the shot (Depo-Provera), or intrauterine devices. A binary measure was constructed for each item comparing youth who indicated they intended to "definitely not/probably not" or "definitely/probably" engage in the activity to youth who reported less positive behavioral intentions. Confidence and self-efficacy Self-efficacy to do with birth control (the Youth Risk Behavior Surveillance System or from the Prevention Minimum Evaluation Data Set): Seven items were included to assess self-efficacy. Two constructs were created: Ability to Communicate with Your Partner and Plan for Protected Sex and Avoid Unprotected Sex. One single-item measure was included to assess self-efficacy regarding finding a place in the community to obtain a method of protection.
Study arms	**Power Through Choices (PTC) (N = 468)** The PTC curriculum addresses specific characteristics which may motivate system-involved youth to become pregnant or engage in sexual risk-taking behavior. Some of these reasons may include an intense need for affection or belonging; absence of a dependable family or social support network; exposure to sexual abuse or violence; and limited skills in identifying and securing resources to support their present and future needs. The PTC intervention is sensitive to the issues of abuse and other trauma which may be part of the life story of the participants and provides opportunities for youth to examine how those experiences might influence feelings and behaviors related to sexual decision-making. The PTC intervention consists of ten 90-minute sessions delivered twice per week to groups of 6-20 youth. The intervention program sessions are gender specific and feature an interactive approach that engages youth through role playing, group discussion, and other hands-on activities. Each session also includes time for questions and answers. The PTC intervention was developed using Social Cognitive Theory and the Health Belief Model as guiding behavioral theories. Theoretical constructs that are operationalized in the intervention to address these needs are skills building, role modeling, identification and reduction of barriers to change, goal setting, self-efficacy regarding postponing initiation of sexual intercourse, and self-efficacy regarding contraceptive and condom use for those who are sexually active. The intervention also focuses on self-empowerment and the impact of choices.

	Duration of follow-up	postintervention
	% Female	18.6%
	Condition specific characteristics	non-white ethnicity 80.4% time spent in care age entering foster care: 12.8 years
	Outcome measures	Health outcome 1 Attitudes toward using protection (Many items were from the Youth Risk Behavior Surveillance System or from the Prevention Minimum Evaluation Data Set): mean difference between groups for support for methods of protection score: 0.17 (P=<0.0001); mean difference between groups for barriers to methods of protection score: 0.06 (P=0.1163). Analysis was adjusted for baseline age, gender, and race/ethnicity. Results favoured the intervention group. Health outcome 2 Behavioral intentions regarding sexual activity (the Youth Risk Behavior Surveillance System or the Prevention Minimum Evaluation Data Set): Mean percentage difference between comparison groups in number definitely not and probably not going to have sex: -1.4% (p=0.5504); Mean percentage difference between comparison groups in number who would definitely and probably used a condom: 8.9% (P=0.0052); Percentage difference between comparison groups in number who would definitely and probably use a method of birth control: 8.1% (P=0.0422). Analysis was adjusted for baseline age, gender, and race/ethnicity. Results favoured the intervention group. Confidence and self-efficacy Self-efficacy to do with birth control (the Youth Risk Behavior Surveillance System or from the Prevention Minimum Evaluation Data Set): mean difference in ability to communicate with partner score at postintervention: 0.23 (p<0.0001); Mean difference between comparison groups for plan for protected sex and to avoid unprotected sex score at postintervention: 0.27 (P<0.0001); Difference in mean percentage very sure of where to get birth control between comparison groups at postintervention: 15.0% (P=0.0017). Analysis was adjusted for baseline age, gender, and race/ethnicity. Results favoured the intervention group.
	Care as Usual (N = 484) Youth residing in homes randomized to the control condition received "usual care" which was not programming related to reproductive health, but in some instances, they may have received educational information on topics such as healthy eating.	

	Duration of follow-up	postintervention
	Sources of funding	Department of Health and Human Services, Administration for Children and Families.
	Inclusion criteria	Care situation youth living in group homes overseen by the child welfare (CW) (foster care) and/or Juvenile Justice (JJ) systems. A “group home” is considered a congregate care residential facility operated or contracted by a state child welfare agency, a state juvenile justice agency, or by a private care provider Age age 13-18 years
	Sample size	952
	Split between study groups	Randomised PTC = 517 (40 clusters) CAU = 519 (40 clusters)
	Loss to follow-up	PTC = 49 CAU = 36
	% Female	22.1%
	Mean age (SD)	16.1 years
	Condition specific characteristics	non-white ethnicity 79.1%

	time spent in care age entering foster care: 12.3 years
Study arms	**1a. Bias arising from the randomisation process** Low **1b. Bias arising from the timing of identification and recruitment of individual participants in relation to timing of randomisation** Low **2. Bias due to deviations from intended interventions (If your aim is to assess the effect of assignment to intervention, answer the following questions).** Low **3. Bias due to missing outcome data** Low **4. Bias in measurement of the outcome** Probably yes Some concerns (Self-report outcomes which may have been influenced by knowledge of intervention group) **5. Bias in selection of the reported result** Some concerns (Data were collected at pre-, post-, 6-month, and 12-month follow-up but only post intervention results presented. Data is presented as means without measure of spread. Measures used for outcomes were often construct scores created by the study authors. It is unclear if these outcome measures have been meaningfully validated.)

	Overall bias and Directness Some concerns **Overall Directness** Partially applicable (Group homes served in the study included: (1) youth in the CW system; (2) youth in the JJ system; or (3) a mixture of youth from both systems. Also study was USA-based.)

Pears 2007

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Foster children entering second grade (7-8 years) through kindergarten (5-6 years). Children attended playgroups over this transitional summer.
Study dates	Autumn 2002
Duration of follow-up	2 week follow up
Sources of funding	National Institute on Drug Abuse National Institute of Mental Health Office of Research on Minority Health

Inclusion criteria	Age Entering second grade through kindergarten Geography Foster children in Lane County, Oregon
Sample size	24
Split between study groups	11 in intervention group; 13 in control group
Loss to follow-up	1 lost to follow up in intervention group, 3 lost to follow up in control group
% Female	54.2%
Mean age (SD)	Not reported for total group
Condition specific characteristics	% with disabilities; speech, language and communication needs; or special education needs 20.8% had received special education services Type of foster care 41.7% in non-relative foster care
Outcome measures	Behavioural and social functioning at school Child Behavior Checklist (parent reported, mean difference reported 2 weeks before and after intervention): foster parent-rated social competence, externalising behaviors, internalising behaviors; Teacher Report Form (elementary school teacher-reported, post-intervention score reported one month following the start of school only): teacher-rated social problems, externalising behaviors, internalising behaviors Emotional regulation Emotion Regulation Checklist (parent-, teacher-, and laboratory assessors-reported, 2-week pre and post-intervention mean difference reported for foster parents and laboratory assessors, mean score one month following the start of school for teacher-reported outcomes): Foster parent-rated lability and emotional regulation, assessor-rated lability, teacher-rated lability and emotional regulation
Study arms	Therapeutic playgroups (N = 10)

	Intervention group children attended 2-hr therapeutic playgroups twice weekly for 7 weeks during the summer. Two components of social emotional readiness were targeted by the intervention: social competence (including sharing, initiating and maintaining interactions, cooperating and problem solving with peers, and recognizing emotions) and emotional and behavioral self-regulation (including problem solving, managing negative emotions, and using work-related skills). The curriculum manual for the playgroup was developed by the authors (and others) and outlined the activities for each of the playgroup sessions. The basic routine included a welcoming activity, a craft project, a snack, two circle times, projects, and group games. Each session focused on a single social skill (e.g., sharing), and skills were taught using instructional techniques that included preteaching, modeling, opportunities to practice skills, and immediate positive reinforcement. Skills were introduced and modeled during circle time, and opportunities to practice skills were embedded within subsequent classroom activities. Specific social skills included in the curriculum were sharing, initiating and maintaining interactions, cooperating, problem solving, and recognizing emotions. A small student-to-staff ratio (3:1) made it possible for teachers to shape the children's skills and to reward the children when they were successful.

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Foster children entering second grade (7-8 years) through kindergarten (5-6 years). Children attended playgroups over this transitional summer.
Study dates	Autumn 2002
Duration of follow-up	2 week follow up for parent and assessor-related outcomes. Follow up one month after the start of school for teacher-related outcomes
Sources of funding	National Institute on Drug Abuse National Institute of Mental Health Office of Research on Minority Health

Sample size	24
Split between study groups	11 in intervention group; 13 in control group
Loss to follow-up	1 lost to follow up in intervention group, 3 lost to follow up in control group
% Female	45.5%
Mean age (SD)	6.49 ± 0.86 years
Condition specific characteristics	% with disabilities; speech, language and communication needs; or special education needs 18% had received special education services Type of foster care 46% in non-relative foster care
Outcome measures	Behavioural and social functioning at school foster parent-rated social competence: mean difference 1.09 ± 1.20; foster-parent rated externalising behaviors: mean difference -2.10 ± 3.87; foster parent-rated internalising behaviors: mean difference -1.40 ± 5.64. teacher-rated social problems, post-intervention score: mean 2.10 ± 1.73; teacher-rated externalising behaviors, post-intervention score: mean 10.60 ± 8.09; teacher-rated internalising behaviors, post-intervention score: mean 6.50 ± 7.75. Emotional regulation Foster parent-rated lability score: mean difference -0.20 ± 0.21; foster parent-rated emotional regulation score: mean difference -0.04 ± 0.22; Assessor-rated lability score: mean difference -0.01 ± 0.31; teacher-rated lability score: mean 1.85 ± 0.53; teacher-rated emotional regulation, post-intervention score: mean 3.11 ± 0.52

Control group (N = 10)

Controls received foster care services as usual from the child welfare agency, which sometimes included early childhood special education services. They did not attend playgroups. playgroups.

	Study type	Randomised controlled trial (RCT)
	Study location	USA
	Study setting	Foster children entering second grade (7-8 years) through kindergarten (5-6 years). Children attended playgroups over this transitional summer.
	Study dates	Autumn 2002
	Duration of follow-up	2 week follow up
	Sources of funding	National Institute on Drug Abuse National Institute of Mental Health Office of Research on Minority Health
	Sample size	24
	Split between study groups	11 in intervention group; 13 in control group
	Loss to follow-up	1 lost to follow up in intervention group, 3 lost to follow up in control group
	% Female	38.5%
	Mean age (SD)	6.61 ± 1.16

	Condition specific characteristics	% with disabilities; speech, language and communication needs; or special education needs 23% had received special education services Type of foster care 39% in non-relative foster care
	Outcome measures	Behavioural and social functioning at school foster parent-rated social competence score: mean difference -0.44 ± 0.82; foster parent-rated externalising behaviors score: mean difference 0.10 ± 3.87; foster parent-rated internalising behaviors score: mean difference -2.70 ± 2.50; teacher-rated social problems post-intervention score: mean 2.10 ± 4.04; teacher-rated externalising behaviors post-intervention score: mean 9.70 ± 10.09; teacher-rated internalising behaviors post-intervention score: mean 6.40 ± 7.79. Emotional regulation Foster parent-rated lability score: mean difference -0.06 ± 0.24; foster parent-rated emotional regulation score: mean difference -0.01 ± 0.16; assessor-rated lability score: mean difference 0.40 ±0.51; teacher-rated lability, post-intervention score: mean 1.63 ± 0.56; teacher-rated emotional regulation, post-intervention score: 3.29 ± 0.63
Risk of bias	**Domain 1: Bias arising from the randomisation process** Some concerns **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** High **Domain 3. Bias due to missing outcome data** Some concerns **Domain 4. Bias in measurement of the outcome** High **Domain 5. Bias in selection of the reported result** Some concerns	

	Overall bias and Directness Risk of bias judgement High

Pears 2016

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Foster care. KITS intervention took place in centre- or school-based classrooms
Study dates	Not reported (study published 2012)
Duration of follow-up	Children and their caregivers participated in center-based assessments that employed standardized testing, questionnaires, and structured interviews at the beginning of the summer before kindergarten prior to the intervention, at the end of the summer just prior to kindergarten entry (5 years old), and at the ends of the kindergarten year (6 years old) and subsequent school years through third grade (9 years old).
Sources of funding	National Institute on Drug Abuse
Inclusion criteria	Care setting Nonkinship or kinship foster care at time of intervention Other English speaking; not involved with another treatment protocol closely related to the KITS intervention

Sample size	219
Split between study groups	113 were assigned to the KITS intervention, 106 were assigned to FCC
Loss to follow-up	11 in the KITS intervention, 16 in the FCC group
% Female	not reported for total study population
Mean age (SD)	Not reported for total study population
Outcome measures	Educational outcomes 1 Early Literacy Skills. Observer and caregiver report. Letter naming and letter–sound awareness were measured using the Letter Naming Fluency and Initial Sound Fluency subtests of the Dynamic Indicators of Basic Early Literacy Skills (DIBELS). For the former subtest, the child is asked to identify as many letters as possible from a randomly ordered array of uppercase and lowercase letters. The score is the number of correct letters identified in 1 min. For the latter subtest, the child is asked to orally produce the initial sound of a word that corresponds to a stimulus picture. The total score is the number of correct initial sounds produced in 1 min; Understanding of concepts about print was measured using the 24-item Concepts About Print test, which assesses such print conventions as reading left to right, matching spoken to written words, and distinguishing pictures from text. The children received 1 point for each correct answer, summed to produce a total score. For the final indicator of early literacy skills, a caregiver rating of prereading skills was used. The caregivers were asked whether the child could recognize the letters of the alphabet and write his or her first name. Caregiver responses were standardized and averaged to produce a composite caregiver rating of prereading skills with higher scores indicating greater reading skills. Physical health outcomes Positive attitudes towards alcohol use in the third grade. Child-reported. Questions were adapted from the Monitoring the Future National Survey Questionnaire. The positive alcohol belief construct included three items: how many adults they believed used alcohol (“none” to “all”), whether they believed that it would be okay for people to drink alcohol (“no”, “sometimes”, “yes”), and how likely it was that they would use alcohol when they were teens (“definitely not”, “probably not”, “probably”, “definitely”). For each item, children were provided with pictorial representations of the answer choices. In general, the “smallest” answer was depicted as a small block with other blocks increasing in size to the “largest” answer. Responses were standardized and averaged to form the positive attitudes towards alcohol use construct with higher scores indicating more positive attitudes. Behavioural outcomes Positive attitudes towards antisocial behavior in third grade. Child reported. two questions; “What are some of the things you think teenagers do for fun with their friends?” and “What are some of the things you think teenagers do when their moms or dads are not there?” Children could provide up to six answers for these open-ended questions, which were then classified into one of several categories of antisocial and prosocial activities. Antisocial activities included smoking, using marijuana or other drugs, sexual activities (but not dating), rule breaking (such as swearing, “getting in trouble”), and delinquent behaviors (such as hurting others, getting arrested). The alcohol use category was left out of this construct to avoid overlap with the positive attitudes towards alcohol use construct. For the question about what teenagers do when their parents are not there, “partying” was also considered an antisocial response. Examples of prosocial responses were playing games, sports, spending time with family, eating, and in-home recreation (like watching TV or movies). The child's total number of answers to each question was computed as well as the number of antisocial answers. The total antisocial answers for the two questions were significantly positively

	correlated and were thus summed as were the total answers for both questions. The total number of antisocial answers to both questions was then divided by the total number of answers to produce a rate of endorsement of antisocial behaviors. Social outcomes Involvement with deviant peers in third grade. Child and teacher-reported. children answered a series of questions about whether “none”, “some”, or “all” of their friends were involved in five rule-breaking or deviant behaviors (“cheat on tests”, “ruin or damage something that doesn't belong to them”, “talk back to adults”, “hit or threaten to hit someone”, “suggest that you do something that could get you into trouble”). All children were given a card with a pictorial representation of the answer choices. “None”was shown as the smallest block and “all” as the largest with “some” in the middle. Items were averaged to forma scale of involvement with deviant peers (standardized). Teachers completed a series of questions about the child's social skills, including questions about how well the child was liked and accepted, how often the child associated with peers who misbehave, how often the child exerted a negative influence on peers, and how influenced by peers the child was compared to other peers of his or her age. These four items showed good internal reliability and so were averaged to produce a teacher rating of deviant peer association. This was significantly positively correlated with the child report of negative peer association and thus the two scores were standardized and averaged to produce an involvement with deviant peers construct. Higher scores indicate higher involvement. Emotional regulation inhibitory control, behavior regulation, and emotion regulation. Inhibitory control. Scores from four measures were combined to create the inhibitory control composite. First, the caregivers completed the Children’s Behavior Questionnaire. Scores on the Inhibitory Control subscale and the Attentional Focusing subscale were averaged. Second, the caregivers completed the Inhibit subscale from the Brief Rating Inventory of Executive Function–Preschool Version. Third and fourth, the children completed two computer-administered tasks shown to activate specific regions of the prefrontal cortex and anterior cingulate gyrus. Confidence and self-esteem outcomes Self-competence in third grade. Child reported. Children answered six questions on their self-competence (e.g., whether they liked the person they were) on the Global Self-Worth Scale (standardized) of the Self-Perception Profile for Children. Behavioural outcomes 2 Oppositional and aggressive classroom behaviors. Teacher reported. The child’s oppositional and aggressive behaviors in school were measured via the teacher report using the raw scores from the aggressive and delinquent behavior subscales of the Teacher Report Form. Additionally, the oppositional subscale of the Conners’ Teacher Ratings Scales-Revised: Short version (CTRS:S) was used. Behavioural outcomes 3 Days free from internalising symptoms. Used symptom reports from caregivers on the Child Behavior Checklist (CBCL) to create days that had significant internalizing symptoms or externalizing behaviors. Specifically, the CBCL scores at each assessment point were used to categorize days with greater levels of internalizing or externalizing behavior. Scores were then interpolated using quadratic weighting between the symptom-free days and those with greater symptoms to assign a value to each day in the interval. Authors then calculated the number of IFDs and EFDs as the number of days in the study period minus the days with significant internalizing or externalizing behavior. Behavioural outcomes 4 Days free from externalising symptoms. Used symptom reports from caregivers on the Child Behavior Checklist (CBCL) to create days that had significant internalizing symptoms or externalizing behaviors. Specifically, the CBCL scores at each assessment point were used to categorize days with greater levels of internalizing or externalizing behavior. Scores were then interpolated using quadratic weighting between the symptom-free days and those with greater symptoms to assign a value to each day in the interval. Authors then calculated the number of IFDs and EFDs as the number of days in the study period minus the days with significant internalizing or externalizing behavior. Behavioural outcomes 5

	Behaviour regulation. Three measures were used to form a composite score of behavior regulation. First, reversed scores on the Activity Level subscale and Impulsivity subscale of the CBQ were averaged. Second, the reversed score on the Externalizing subscale of the CBCL was used. Third, the reversed score on the Lability subscale of the Emotion Regulation Checklist (ERC) was used. The CBQ, CBCL, and ERC indicators were standardized and averaged to produce the behavior regulation composite score. Social outcomes 2 Prosocial skills. Caregivers completed the Preschool Penn Interactive Peer Play Scale. Play interaction, Play distruption, and play disconnection subscales. The Play Interaction scale asks caregivers to report the frequency with which children engage in prosocial behaviors such as helping, sharing, encouraging others to join play, and settling conflicts. Because prosocial skills were foci of the intervention, the Play Interaction scale was used in the present analyses. The raw Social Competence score from the caregiver-completed Child Behavior Checklist (CBCL) was also used as an indicator of prosocial skills. Emotional outcomes 2 Emotional understanding. emotion understanding was measured directly using eight short vignettes describing situations that would typically be expected to elicit happiness, sadness, anger, or fear. The children were asked to select the picture that best represented the emotional state of the protagonist in each vignette. The vignettes were scored as follows: 2¼correctly identified the targeted emotion depicted in the story, 1=selected an emotion of the same valence as the targeted emotion, and 0=did neither. Scores were summed across the eight vignettes. Emotional regulation 2 Emotion regulation. To measure emotion regulation, authors used the reversed scores on the Anger subscale and the Reactivity/Soothability subscale of the CBQ. These indicators were averaged and combined. he Emotion Regulation scale from the ERC was also utilized in this composite. Finally, the reversed score on the Emotion Control subscale of the BRIEF–P was included in the composite score. indicators were standardized and averaged to create an emotion regulation composite score.
Study arms	Kids In Transition to School (KITS) programme (N = 102) The KITS intervention occurs during the 2 months of summer prior to kindergarten entry and the first 2 months of kindergarten in the fall. It consists of two primary components: child school readiness groups and caregiver groups. The 24-session school readiness groups for the children (2 h, twice weekly in the summer, 16 sessions; 2 h, once weekly in the autumn, 8 sessions) focus on promoting early literacy, prosocial, and self-regulatory skills. The caregiver groups meet for 8 sessions total, every other week during the summer and autumn (2 h), and focus on effective parenting techniques as well as promoting caregiver involvement in early literacy and school. Caregiver group meetings coincide with the children's school readiness group meeting times. The KITS school readiness group sessions are held in center- or school-based classrooms and have a highly structured, consistent routine similar to that of a typical kindergarten classroom. The manualized curriculum covers three critical skill areas: (1) self-regulatory skills (e.g., handling frustration and disappointment, paying attention, following multistep directions, and making appropriate transitions); (2) prosocial skills (e.g., reciprocal social interaction, social problemsolving, and emotion recognition); and (3) early literacy skills (e.g., letter names, phonological awareness, conventions of print, and comprehension). % Female: 48%

	Mean age (SD)	5.26 ± 0.33
	Condition specific characteristics	% who are victims of exploitation or trafficking 16% with histories of sexual abuse, and 17% with history of physical abuse Type of foster care 62% nonkinship care; 38% kinship care Non-white ethnicity 45% Number of placements mean 3.10 ± 1.75
	Outcome measures	Educational outcomes 1 DIBELS, initial sound fluency score: mean 7.68 ± 7.41; DIBELS, letter naming fluency score: mean 8.75 ± 11.04. Concepts About Print score: 7.10 ± 3.28; Caregiver Rating of Pre-reading skills score: mean -0.06 ± 0.87. Association between being in the intervention group and early literacy skills (composite of standardised means from indicators of early literacy skills, above): β 0.10 P<0.05 (adjusted for general cognitive ability at baseline, early literacy skills at baseline) Physical health outcomes Positive attitudes towards alcohol score: mean -0.13 ± 0.58. Association between being in the intervention group and positive attitudes towards alcohol: β -0.34 P<0.05 (adjusted for gender, general cognitive ability at baseline, kinship foster care, child oppositional and aggressive behaviour at baseline, placement changes during study, other psychological/ educational services) Behavioural outcomes Positive attitudes towards antisocial behaviours score: mean 0.22 ± 0.26. Association between being in the intervention group and positive attitudes towards attitudes: β -0.11 P<0.05 (adjusted for gender, general cognitive ability at baseline, kinship foster care, child oppositional and aggressive behaviour at baseline, placement changes during study, other psychological/ educational services) Social outcomes Involvement with deviant peers score: mean -0.07 ± 0.88 Emotional regulation Inhibitory control score: mean -0.01 ± 0.69 Confidence and self-esteem outcomes

	Self-competence score: mean 20.55 ± 3.45. Association between being in the intervention group and greater self-competence: β 1.95 P<0.01 (adjusted for gender, general cognitive ability at baseline, kinship foster care, child oppositional and aggressive behaviour at baseline, placement changes during study, other psychological/ educational services) Behavioural outcomes 2 Teacher report aggressive behaviour subscale: mean score 9.53 ± 10.46; Teacher report form delinquent behaviour subscale: mean score 1.99 ± 2.01; Conner's Teacher's Rating Scale oppositional behaviours subscale: 1.92 ± 3.24 Behavioural outcomes 3 Days free from internalising symptoms: mean 310.5 ± 78.8 Behavioural outcomes 4 Days free from externalising behaviour: mean 218.6 ± 102.4. Association between being in the intervention group and child oppositional and aggressive behaviours: β -0.17 P<0.05 (adjusted for oppositional and aggressive behaviours at baseline, gender, overall level of disruptiveness in classroom) Behavioural outcomes 5 Behavioural Regulation score: mean 0.07 ± 0.84. Social outcomes 2 Preschool PIPPS Score: mean 2.73 ± 0.40; CBCL Social Competence score: mean 4.77 ± 1.99. Association between being in the intervention group and prosocial skills score: β 0.4 P>0.05 (adjusted for gender, kinship foster care, prosocial skills at baseline). Emotional outcomes 2 Emotional understanding score: mean 10.80 ± 2.86 Emotional regulation 2 Emotional regulation score: mean -0.01 ± 0.79 Association between being in the intervention group and self-regulatory skills: β 0.11 P<0.05 (adjusted for gender, Latino ethnicity, self-regulatory skills at baseline, daycare attendance)

Foster care as usual (FCC) (N = 90)

Children in this group received services commonly offered by the child welfare system. These could include individual child psychotherapy, participation in Head Start or another early childhood education program, and services such as speech therapy. No attempt was made to influence the type or amount of services received by children or their families in either the comparison or the KITS groups.

Split between study groups	113 were assigned to the KITS intervention, 106 were assigned to FCC

	Loss to follow-up	11 in the KITS intervention, 16 in the FCC group
	% Female	54%
	Mean age (SD)	5.25 ± 0.35
	Condition specific characteristics	% who are victims of exploitation or trafficking 21% with history of physical abuse, 18% with history of sexual abuse Type of foster care Nonkinship care 61%, kinship care 39% Non-white ethnicity 49% Number of placements 3.22 ± 1.96
	Outcome measures	Educational outcomes 1 DIBELS, Initial Sound Fluency score: mean 6.87 ± 6.93; DIBELS, Letter Naming Fluency score: mean 8.52 ± 10.43; Concepts About Print score: mean 6.45 ± 3.85; Caregiver Rating of Prereading Skills score: mean 0.07 ± 0.81 Physical health outcomes Positive attitudes towards alcohol score: mean 0.17 ± 0.82 Behavioural outcomes Positive attitudes towards antisocial behaviours score: mean 0.31 ± 0.31 Social outcomes Involvement with deviant peers score: mean 0.12 ± 0.89 Emotional regulation Inhibitory control score: mean -0.04 ± 0.76 Confidence and self-esteem outcomes Self-competence score: mean 18.64 ± 4.18

		Behavioural outcomes 2 Teacher Report Form aggressive behaviour subscale: mean 11.37 ± 10.48; Teacher report Form delinquent behaviour subscale: mean 2.57 ± 2.38; Conner's Teacher Rating Scale oppositional behaviours subscale: mean 2.73 ± 3.58 Behavioural outcomes 3 Overall level of disruptiveness in the classroom score: mean 0.04 ± 0.85 Behavioural outcomes 4 Days free from internalising symptoms: mean 284.5 ± 101.5 Behavioural outcomes 5 Days free from externalising behaviours: 192.0 ± 104.6 Social outcomes 2 Preschool PIPPS Score: mean 2.78 ± 0.42; CBCL Social Competence score: mean 4.87 ± 2.03 Emotional outcomes 2 Emotional understanding score: mean 11.01 ± 2.82 Emotional regulation 2 Emotional regulation score: mean -0.01 ± 0.77 Behavioural outcomes 6 Behavioural regulation score: mean -0.07 ± 0.89
Risk of bias	**Domain 1: Bias arising from the randomisation process** Some concerns **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Some concerns **Domain 3. Bias due to missing outcome data** High **Domain 4. Bias in measurement of the outcome**	

	Low **Domain 5. Bias in selection of the reported result** High **Overall bias and Directness** Risk of bias judgement High

Pfeiffer 2018

Study type	Randomised controlled trial (RCT)
Study location	Germany
Study setting	Refugees (unaccompanied) in the child and adolescent welfare system in Germany
Study dates	November 2016 to January 2017
Duration of follow-up	2 months
Sources of funding	the World Childhood Foundation
Inclusion criteria	Care situation residency in Germany for at least 6 months, to ensure UYRs are sufficiently acclimatized to their host environment; prospect of at least 3 months' continuation of the current CAW program to be able to complete the experimental intervention; Age age 13–21 years

	Mental health) a history of exposure to one or more traumatic event(s) assessed with the Child and Adolescent Trauma Screen (CATS) Event Checklist (Sachser et al., 2017); (e) at least moderate severity of PTSS, as indicated by a total symptom score ≥19 on the CATS Symptom Checklist (theoretical range 0–60); Language basic command of the German language to communicate with others and the social workers and to understand explanations and instructions; Other not undergoing alternative behavioral treatment, to avoid confounding treatment effects; being able to participate in daily activities such as school; willingness and ability to attend weekly intervention sessions;
Exclusion criteria	Mental health no acute suicidality, as screened by item 9 ('Thoughts that you would be better off dead or of hurting yourself in some way') of the Patient Health Questionnaire 9 (Kroenke, Spitzer, & Williams, 2001) and subsequently assessed via the Columbia-Suicide Severity Rating Scale Screener (Posner et al., 2008);
Sample size	99
Split between study groups	Mein Weg = 50 Care as Usual = 49
Loss to follow-up	Mein Weg = 2 Care as Usual = 3 However, all were analysed (ITT)
% Female	7.1%
Mean age (SD)	not reported for the total sample
Outcome measures	Mental health outcome 1 Severity of PTSS (assessed by Child and Adolescent Trauma Screen) self-report, at 2 months postbaseline: The total severity score of PTSS, as assessed by the Child and Adolescent Trauma Screen self-report (CATS-S; Sachser et al., 2017), served as the primary outcome. The CATS explores the individual trauma history using an Event Checklist of

	15 potentially traumatic events, as well as the frequency of each of the 20 PTSS, based on DSM-5 criteria (American Psychiatric Association, 2013) using a 4-point response scale ranging from 0 = 'never' to 3 = 'almost always'. Mental health outcome 2 Symptoms of Depression (assessed using the the Patient Health Questionnaire 8) at 2 months postbaseline: Symptoms of depression were assessed by the Patient Health Questionnaire 8 (PHQ-8; Kroenke et al., 2001) which is a 8-item measure based on the DSM-IV (American Psychiatric Association, 2000). The frequency of the symptoms during the two previous weeks can be indicated for each item on a scale ranging from 0 = 'not at all' to 3 = 'nearly every day'. Mental health outcome 3 Dysfunctional posttraumatic cognition (assessed using the Child Posttraumatic Cognitions Inventory Short Version) at 2 months postbaseline: Dysfunctional posttraumatic cognitions (PTCs) were assessed by the Child Posttraumatic Cognitions Inventory Short Version (CPTCI-S; McKinnon et al., 2016), a 10-item questionnaire measuring perceptions of the two subscales 'permanent and disturbing change' and 'fragile person in a scary world'. Mental health outcome 4 Caregiver-rated PTSS symptoms (measured by the CATS caregiver version) at 2 months postbaseline: PTSS, as a proxy measure, was also measured by the CATS caregiver version (CATS-C; Sachser et al., 2017).
Study arms	**"Mein Weg" trauma-focussed group intervention (N = 50)** Mein Weg is a short-term, component-based intervention, specifically designed for young refugees within Child and Adolescent Welfare programs. The intervention comprises six weekly 90-min sessions with 2–5 participants, carried out by two trained social workers, employing a workbook in German and several other materials such as maps and graduation certificates. Contents of the workbook include: - Introduction and getting to know each other, discuss common traumatic events and PTSD in group; Homework: Read text about PTSD; - Relaxation: Introduction and practice of controlled breathing, discuss when to use it individually Homework: Practice controlled breathing and fill out practice sheet - Discuss psychoeducation and practice controlled breathing in group; discuss 'wound metaphor'; Trauma narraitve: Part 1: 'My life in my home country' and 'My way to Germany' Draw/write individually and discuss in group afterwards 3 Discuss trauma narrative rational and reread trauma narrative part 1 individually and/or discuss with group. Trauma Narrative Part 2: 'My worst experience' Draw/write individually and discuss in group afterwards 4 Reread trauma narrative parts 1 and 2 individually and/or discuss with group. Trauma Narrative Part 3, re-establishing a sense of safety 'In Germany–in safety' Draw/write individually and discuss in group factors that make life in Germany safe 5 Re-read trauma narrative parts 1–3 individually and/or discuss with group. Trauma Narrative Part 4: 'Letter to a fellow unaccompanied refugee minor' Write a letter to a fellow refugee who is about to migrate, integrate own resources and advice. Discuss individual resources and main components of letter in group 6 Revision Discuss trauma narrative part 4 in group. Looking towards the future, optimistic

	expectations Draw/write about future hopes and plans Relapse-prevention and self-efficacy improvement. Discuss in group personal intervention gains and future use of learned strategies. Graduation. Celebration with certificates.

Study type	Randomised controlled trial (RCT)
Study location	Germany
Study setting	Refugees (unaccompanied) in the child and adolescent welfare system in Germany
Study dates	November 2016 to January 2017
Duration of follow-up	2 months
Sources of funding	the World Childhood Foundation
Inclusion criteria	Care situation residency in Germany for at least 6 months, to ensure UYRs are sufficiently acclimatized to their host environment; prospect of at least 3 months' continuation of the current CAW program to be able to complete the experimental intervention; Age age 13–21 years Mental health) a history of exposure to one or more traumatic event(s) assessed with the Child and Adolescent Trauma Screen (CATS) Event Checklist (Sachser et al., 2017); (e) at least moderate severity of PTSS, as indicated by a total symptom score ≥19 on the CATS Symptom Checklist (theoretical range 0–60); Language basic command of the German language to communicate with others and the social workers and to understand explanations and instructions; Other not undergoing alternative behavioral treatment, to avoid confounding treatment effects; being able to participate in daily activities such as school; willingness and ability to attend weekly intervention sessions;

	Sample size	99
	Split between study groups	Mein Weg = 50 Care as Usual = 49
	Loss to follow-up	Mein Weg = 2 Care as Usual = 3 However, all were analysed (ITT)
	% Female	6.0%
	Mean age (SD)	17.00 ± 1.11 years
	Condition specific characteristics	non-white ethnicity 50% were from Afghanistan and the rest from other developing countries time spent in care 9.44 ± 3.92 months Other Contact with family: no contact: 26.5%; daily: 6.1%; weekly: 36.7%; monthly: 22.4%; several times a year: 8.2%
	Outcome measures	Mental health outcome 1 Severity of PTSS (assessed by Child and Adolescent Trauma Screen) self-report, at 2 months postbaseline: 23.53 SE 1.77. Group effect: beta coefficient 6.74 (95%CI 1.82 to 11.66); time x group: beta coefficient -4.86 (95%CI -9.33 to -0.39) Mental health outcome 2 Symptoms of Depression (assessed using the the Patient Health Questionnaire 8) at 2 months postbaseline: 8.25 SE 0.75. Group effect: beta coefficient: 3.51 (1.38 to 5.63); Group x Time: -3.56 (-5.72 to -1.40)

		Mental health outcome 3 Dysfunctional posttraumatic cognition (assessed using the Child Posttraumatic Cognitions Inventory Short Version) at 2 months postbaseline: 9.17 SE 1.12. Group effect: beta 3.64 (0.47 to 6.80); Group x Time: beta -2.84 (-6.13 to 0.44) **Mental health outcome 4** Caregiver-rated PTSS symptoms (measured by the CATS caregiver version) at 2 months postbaseline: 18.42 SE 1.38. Group effect: beta coefficient: 1.24 (-2.66 to 5.13); Group x time -0.16 (-4.48 to 4.15)

Usual Care (N = 49)

The standard of usual care in each collaborating CAW program served as the control group. German CAW programs are typically diverse with differing intensity of care, depending on the requirements as defined by the communities paying for these services. UYRs either live in group homes with staff available 24 hr/day or in shared apartments with care by social workers for several hours a week. All UYRs are supposed to attend either regular schools within the German school system or preparatory classes focusing on learning German. CAW programs in Germany do not normally include psychotherapy or psychiatric services. If necessary, the young people are referred to mental health clinics or office-based clinicians.

Study type	Randomised controlled trial (RCT)
Study location	Germany
Study setting	Refugees (unaccompanied) in the child and adolescent welfare system in Germany
Study dates	November 2016 to January 2017
Duration of follow-up	2 months
Sources of funding	the World Childhood Foundation

	Inclusion criteria	Care situation residency in Germany for at least 6 months, to ensure UYRs are sufficiently acclimatized to their host environment; prospect of at least 3 months' continuation of the current CAW program to be able to complete the experimental intervention; Age age 13–21 years Mental health) a history of exposure to one or more traumatic event(s) assessed with the Child and Adolescent Trauma Screen (CATS) Event Checklist (Sachser et al., 2017); (e) at least moderate severity of PTSS, as indicated by a total symptom score ≥19 on the CATS Symptom Checklist (theoretical range 0–60); Language basic command of the German language to communicate with others and the social workers and to understand explanations and instructions; Other not undergoing alternative behavioral treatment, to avoid confounding treatment effects; being able to participate in daily activities such as school; willingness and ability to attend weekly intervention sessions;
	Sample size	99
	Split between study groups	Mein Weg = 50 Care as Usual = 49
	Loss to follow-up	Mein Weg = 2 Care as Usual = 3 However, all were analysed (ITT)
	% Female	8.2%
	Mean age (SD)	16.92 ± 0.76

	Condition specific characteristics	non-white ethnicity 40.8% from afghanistan; 14.3% from Syria; 12.2% from Gambia; 10.2% from Iran; the rest from other developing countries. time spent in care 8.79 ± 4.55 months Other Family contact: no contact: 19.1%; daily: 8.5%; weekly: 31.9%; monthly: 27.7%; several times a year: 12.8%
	Outcome measures	Mental health outcome 1 Severity of PTSS (assessed by Child and Adolescent Trauma Screen) self-report, at 2 months postbaseline: 30.27 SE 1.73 Mental health outcome 2 Symptoms of Depression (assessed using the the Patient Health Questionnaire 8) at 2 months postbaseline: 11.76 SE 0.76 Mental health outcome 3 Dysfunctional posttraumatic cognition (assessed using the Child Posttraumatic Cognitions Inventory Short Version) at 2 months postbaseline: 12.80 SE 1.13 Mental health outcome 4 Caregiver-rated PTSS symptoms (measured by the CATS caregiver version) at 2 months postbaseline: 19.66 SE 1.39
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Low (allocation appears to be concealed: The study assessors were blinded at the screening appointment, as randomization took place afterward. Unclear how randomisation performed but no clear differences at baseline) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low (Treatment fidelity was high, intention to treat analysis used) **Domain 3. Bias due to missing outcome data**	

	Low **Domain 4. Bias in measurement of the outcome** Some concerns (Outcome assessors at follow up were aware of intervention group, and measures were validated but also self-report/subjective) **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** Low **Overall Directness** Indirectly applicable (Germany-based study)

Reddy 2013

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Adolescents in foster care
Study dates	Not reported

Duration of follow-up	Postintervention
Sources of funding	Not reported
Inclusion criteria	Age 13 to 17 years old Mental health Participants were free of active suicidality, psychotic disorders, bipolar I disorder, or eating disorders Medical health Participants were free of chronic illness (cancer, cardiovascular disease, diabetes, and autoimmune disorders).
Sample size	70
Split between study groups	*study did not report number in each arm, however black randomisation was used to equalise numbers in each group. Therefore the following numbers were assumed. CBCT = 35 Waitlist = 35
Loss to follow-up	Not reported
% Female	56%
Mean age (SD)	14.7 ± 1.14

Condition specific characteristics	non-white ethnicity 78.8% BMI category 20% overweight; 11.4% obese existing mental health problems at baseline anxiety disorders 6%; depression 36%; attention deficit hyperactivity disorder 40%; conduct disorder 43%; adjustment disorder 10%; bipolar disorder 7%; post-traumatic stress disorder 10% Medication One psychiatric medication 13%; two or more psychiatric medications 29%
Outcome measures	Mental health outcome 1 Depressive symptoms. The Quick Inventory of Depressive Symptomatology–SelfReport (QIDS-SR). The QIDS-SR is a 16-item measure of the severity of depressive symptoms based on the DSM-IV nine-symptom criteria for depression. Total scores range from 0 to 27, with higher scores indicating greater severity of symptoms. Mental health outcome 2 Anxiety. The State-Trait Anxiety Inventory-Trait Subscale. The State-Trait Anxiety inventory is a widely accepted measure of anxiety comprised of two 20-item scales that assess current anxiety (state) and general anxiety (trait). Because we were interested in the change in general anxiety over time, participants only completed the trait anxiety portion of the measure. Scores for the trait scale range from 0 to 60 with higher scores indicating greater anxiety. Wellbeing outcome 1 Hope: Children's Hope Scale (CHS). The CHS is a six-item Likert scale self-report measures for use with children ages 8–16. The measure assesses agency (i.e., beliefs about initiating and moving towards goals) and pathways (i.e., belief in one's ability to develop successful goal planning) with scores ranging from 0 to 84. Higher scores indicate hopefulness and confidence. Emotional outcome 1 Difficulty with emotional regulation. Difficulties with Emotion Regulation Scale (DERS). The DERS consists of 36 items that assess awareness and understanding of emotional experience, acceptance of emotions, ability to modulate emotional arousal, and effective action in the presence of intense emotions. Six distinct factors have been identified and include nonacceptance of emotions, impulse control difficulties, difficulty engaging in goal-directed behavior, lack of emotional awareness, limited access to effective emotion regulation coping strategies, and lack of emotional clarity. Scores on all subscales were recoded to ensure that higher scores indicated higher dysregulation. Emotional outcome 2 Callous and unemotional traits. Inventory of Callous and Unemotional Traits—Youth Self-Report (ICU-y). The ICU-y is a 24-item measure of three traits—Callousness, Unemotionality, and Uncaring. Scores range from 0 to 72 with higher scores indicating greater callousness and unemotionality. The measure has demonstrated convergent validity with measures of negativity and aggression and is inversely correlated with measures of positive affect. The measure has demonstrated convergent validity with measures of psychopathy and antisocial personality traits. Emotional outcome 3

	Positive and negative emotions about self and others. The SOFI is a self-administered, 16-item scale that measures four qualities at the core of Buddhist teachings: loving kindness, compassion, joy, and acceptance toward self and others. The scale assesses how little (''not at all'') or how much (''extremely'') the respondent experiences positive and negative emotions about themselves and about others. The measure yields two positive subscale scores, positive towards self and positive towards others, and two similar negative subscale scores. Scores on all subscales range from 0 to 16 with higher scores indicating greater positive or negative feelings.
Study arms	**Cognitively-Based Compassion Training (CBCT) (N = 35)** Cognitively-Based Compassion Training is a type of contemplative practice that teaches active contemplation of loving-kindness, empathy and compassion towards loved ones, strangers, and enemies. Building on basic mindfulness practice, CBCT employs a variety of cognitive restructuring and affect generating practices with the long-term goal of developing an equanimity of mind that fosters acceptance and understanding of others. While the mindfulness components incorporated into CBCT may provide an immediate and effective stress management and coping technique, the physiological benefits associated with practices specific to CBCT may confer additional health-relevant benefits.

% Female	Characteristics not reported for study arms, however, study states "Independent samples t tests confirmed there were no demographic differences by group nor differences on measures of mood, behavior, and emotion regulation at baseline"
Outcome measures	Mental health outcome 1 Depressive symptoms mean score at postintervention (The Quick Inventory of Depressive Symptomatology – Self-Report): 8.14 SD 7.33 Mental health outcome 2 Anxiety mean score at postintervention (The State-Trait Anxiety Inventory-Trait Subscale): 16.03 SD 8.97 Wellbeing outcome 1 Hope mean score at postintervention. (Children's Hope Scale): 60.54 SD 13.29 Emotional outcome 1 Difficulty with emotional regulation score at postintervention (Difficulties with Emotion Regulation Scale): 47.90 SD 22.19 Emotional outcome 2 Callous and unemotional traits (Inventory of Callous and Unemotional Traits—Youth Self-Report): 23.75 SD 7.81 Emotional outcome 3 Positive and negative emotions about self and others mean score at postintervention (Self-Other Four Immeasurables Scale): positive self score: 16.78 SD 3.67; negative self score: 5.53 SD 2.18; positive others score: 15.11 SD 3.46; Negative others: 7.06 SD 3.11

<table>
<tr><td></td><td>Wait list control (N = 35)
No further detail provided
<table><tr><td>Outcome measures</td><td>Mental health outcome 1
Depressive symptoms mean score at postintervention (The Quick Inventory of Depressive Symptomatology–Self-Report): 8.09 SD 6.52

Mental health outcome 2
Anxiety score at postintervention (The State-Trait Anxiety Inventory-Trait Subscale): 19.44 SD 8.84

Wellbeing outcome 1
Hope mean score at postintervention (Children’s Hope Scale): 55.24 SD 12.57

Emotional outcome 1
Difficulty with emotional regulation mean score at postintervention (Difficulties with Emotion Regulation Scale): 49.72 SD 18.66

Emotional outcome 2
Callous and unemotional traits mean score at postintervention (Inventory of Callous and Unemotional Traits—Youth Self-Report): 24.68 SD 9.87

Emotional outcome 3
Positive and negative emotions about self and others mean score at postintervention (Self-Other Four Immeasurables Scale): positive self score: 16.71 SD 3.50; negative self score: 5.79 SD 3.14; positive others score: 15.65 SD 3.36; Negative others: 6.82 SD 2.63</td></tr></table></td></tr>
<tr><td>Risk of Bias</td><td>Domain 1: Bias arising from the randomisation process

Some concerns

(Unclear method of randomisation. Unclear if allocation concealment. Study reports no differences at baseline however data was not presented.)

Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)

Some concerns

(Unclear if deviations from intervention group.)

Domain 3. Bias due to missing outcome data</td></tr>
</table>

	High (Study did not present information on the number of participants assigned to each study arm. In addition, it was not clear whether there was significant missing data across study outcomes. However, "many" participants with missing data were reported for one of the study measures.) **Domain 4. Bias in measurement of the outcome** Some concerns (No indication of blinding procedures and many of the outcomes were self-report/subjective) **Domain 5. Bias in selection of the reported result** Some concerns (Poor information reported about the procedures employed in running this trial. No protocol cited.) **Overall bias and Directness** High **Overall Directness** Indirectly applicable (Study population from the USA)

Shuurmans 2017

Study type	Randomised controlled trial (RCT)
Study location	Netherlands

Study setting	Youths in Residential Care
Study dates	March 2014 to June 2014
Duration of follow-up	postintervention, 4-months follow up
Sources of funding	Radboud University Nijmegen, Behavioural Science Institute
Inclusion criteria	Care situation Residential institutions; In these institutions, youths live in group homes consisting of six to ten youths, with group home workers as substitute care givers. emotional or behavioural disorders clinically elevated levels of both anxiety and externalizing problems, based on clinician assessment
Exclusion criteria	health problems diagnosed with an Autism Spectrum Disorder or exhibited psychotic symptoms
Sample size	41
Split between study groups	Dojo intervention = 20 Control group = 21
Loss to follow-up	Dojo intervention = 2 Control group = 2
% Female	not reported for total sample
Mean age (SD)	not reported for total sample

Outcome measures	Behavioural outcome 1 Externalizing Problems: Self-reported and mentor-reported externalizing problems were measured using the Dutch version of the Strengths and Difficulties Questionnaire (SDQ; Goodman 1997; vanWidenfelt et al. 2003). Authors used the externalizing subscales 'conduct problems' (e.g., I fight a lot), 'hyperactivity-inattention' (e.g., I am easily distracted), and 'peer problems' (e.g., I am usually on my own), each consisting of five three-point items.We calculated a total score of externalizing problems by summing up these three subscales. Cronbach's alpha of this externalizing problems score were .81, .83, and .68 (self-report), and .75, .69, and .66 (mentor-report) for the baseline, posttreatment, and follow-up measure, respectively. Mental health outcome 1 Anxiety: Self-reported and mentor-reported anxiety was measured using the total scores of the Dutch version of the Spence Children's Anxiety Scale (SCAS; Spence 1998). The SCAS has 45 four-point items (e.g., I worry about things, I am scared of the dark) and is composed of five subscales: 'separation anxiety', 'social phobia', 'obsessive–compulsive disorder', 'fears of physical injury', and 'generalized anxiety'. Cronbach's alpha of the SCAS measurements were .88, .92, and .87 (self-report), and .88, .89, and .92 (mentor-report) for the baseline, posttreatment, and follow-up measurement, respectively.
Study Arms	**Videogame Intervention (Dojo) (N = 18)** Participants in the experimental condition received the Dojo intervention as an addition to their usual treatment program. The intervention consisted of eight 30-min sessions during which participants played Dojo on a laptop. The sessions took place twice a week for four consecutive weeks in an office at the group homes or in a therapist office located on the campus of the residential institution. The game sessions were led by the first author and two research assistants who were trained to explain the game to participants and guide them through the tutorials and challenges according to a standardized protocol. In each session, participants were instructed to complete the tutorial – to practice the relaxation technique – before they were allowed to start with the matching mini game.

Study type	Randomised controlled trial (RCT)
Study location	Netherlands
Study setting	Youths in Residential Care
Study dates	March 2014 to June 2014

Duration of follow-up	postintervention, 4-months follow up
Sources of funding	Radboud University Nijmegen, Behavioural Science Institute
Inclusion criteria	Care situation Residential institutions; In these institutions, youths live in group homes consisting of six to ten youths, with group home workers as substitute care givers. emotional or behavioural disorders clinically elevated levels of both anxiety and externalizing problems, based on clinician assessment
Sample size	41
Split between study groups	Dojo intervention = 20 Control group = 21
Loss to follow-up	Dojo intervention = 2 Control group = 2
% Female	22.2%
Mean age (SD)	13.67 ± 1.82
Condition specific characteristics	Learning disability or special educational need intellectual disability: none: 50%; mild: 16.7%; moderate: 33.3%; severe: 0%
Interventions	Other interventions received

	Individual therapy: 50%; group therapy: 22.2%; family therapy: 16.7%; medication 44.4%
Outcome measures	Behavioural outcome 1 Self-reported externalizing problems (SDQ) mean score at postintervention/4 month follow up: 8.00 ± 5.08/8.17 ± 3.92. Mentor-reported externalizing problems (SDQ) at postintervention/4 month follow up: 14.17 ± 5.07/14.17 ± 3.64 Mental health outcome 1 Self-reported anxiety (SCAS) at postintervention/4 month follow up: 16.44 ±16.30/16.28 ± 15.29. Mentor-reported anxiety (SCAS) at postintervention/4 month follow up: 13.61 ± 9.47/13.92 ± 12.15

Treatment as Usual (N = 19)

The TAU condition was designed to reflect standard practice. Participants in both conditions received TAU; treatment as recommended by their clinicians regardless of this study. There were no restrictions for the type of interventions participants received, authors only kept track of it. Individual therapy (e.g. CBT) and/or medication (e.g. Ritalin) were the most received interventions. Some participants received group therapy (e.g. social skills training) and/or family therapy (e.g., multisystematic therapy).

% Female	10.5%
Mean age (SD)	14.26 ± 1.94
Condition specific characteristics	Learning disability or special educational need intellectual disability: none: 52.6%; mild: 15.8%; moderate: 26.3%; severe: 5.3%
Interventions	Other interventions received Individual therapy: 47.4%; group therapy: 5.3%; family therapy: 26.3%; medication 42.1%
Outcome measures	Behavioural outcome 1 Self-reported externalizing problems (SDQ) mean score at postintervention/4 month follow up: 12.28 ± 4.98/12.39 ± 3.33. Mentor-reported externalizing problems (SDQ) at postintervention/4 month follow up: 14.56 ± 3.94/15.00 ± 4.85

	Mental health outcome 1 Self-reported anxiety (SCAS) at postintervention/4 month follow up: 18.67 ±16.50/17.89 ± 10.50. Mentor-reported anxiety (SCAS) at postintervention/4 month follow up: 19.11 ± 7.85/13.70 ± 5.72
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Low **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low **Domain 3. Bias due to missing outcome data** Low **Domain 4. Bias in measurement of the outcome** High **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** High (No blinding and many of the outcomes are fairly subjective.) **Overall Directness** Partially applicable (Study took place in the Netherlands)

Smith 2010

Study type	Randomised controlled trial (RCT) See also Eddy 2000/2004 in review question 2.1
Study location	USA
Study setting	Youth mandated into residential care/foster care by juvenile court.
Study dates	October 1991 to August 1995
Duration of follow-up	12 and 18 month follow up
Sources of funding	National Institute of Mental Health (NIMH)
Inclusion criteria	Age adolescents Criminal characteristics chronic and severe offenders residing in Lane County, Oregon. Only youth who would normally be placed in a community setting were referred; youth who had such severe drug or alcohol problems that they needed inpatient treatment or who were judged to be an extreme threat to the safety of the community were sent to other placements Gender Male
Sample size	79
Split between study groups	MTFC = 37 GC = 42

	(in previous studies numbers analysed were fewer for analysis in all outcomes, unclear how much missing data in this study)
Loss to follow-up	not reported
% Female	0%
Mean age (SD)	14.9 ± 1.3 years
Condition specific characteristics	non-white ethnicity 15% Criminal characteristics Prior to the baseline assessment, participants averaged 13.5 criminal referrals (SD = 8.7), including 3.9 felonies (SD = 3.8). Drug use At the baseline assessment, 71 (90%) of the participants reported having used at least one substance: 62 (78%) reported having used tobacco, 54 (68%) reported having used marijuana, 57 (72%) reported having used alcohol, and 40 (51%) reported having used other drugs. Of the participants who reported having used tobacco, 50 (81%) indicated daily use. Of the participants who reported having used marijuana, 32 (41%) indicated daily or weekly use. Of the participants who reported have used alcohol, 21 (37%) indicated daily or weekly use. Of the participants who reported having used other drugs, 23 (57%) indicated at least occasional use. On average, the participants reported occasional use of substances at baseline (M = 2.73, SD = 1.01).
Outcome measures	Health outcome 1 Tobacco use mean score at 12 months/18 months: Self-reported substance use data was collected for all participants at baseline and at 12 and 18 months postbaseline. At the baseline assessment, the participants reported on their substance use for the prior 6 months. At the 12- and 18-month assessments, they reported on their substance use since the previous assessment. Using these reporting timeframes prevented overlap between reported substance use. At each time point, the participants reported on their use of tobacco, alcohol, marijuana, and other drugs (i.e., cocaine, speed, LSD, heroin, mushrooms, PCP, morphine, and inhalants) according to a 5-point Likert scale: 1 (never) to 5 (used 1 or more times per day). Health outcome 2 Marijuana use mean score at 12 months/18 months: see above Health outcome 3 Alcohol use mean score at 12 months/18 months: see above Health outcome 4 Other drug use mean score at 12 months/18 months: see above

Study arms	**Multidimensional Treatment Foster Care (N = 37)** Multidimensional treatment foster care (MTFC). No more than two youths at a time (in most cases, one youth at a time) were placed in treatment foster families recruited from the local community. Foster parents were hired on the basis of their experience with adolescents, their acceptance to act as active treatment agents, and staff perceptions of the degree to which their current family environment was nurturing. Parents received 20 hr of preservice training conducted by case managers and current MTFC foster parents prior to accepting a study youth. Training focused on the use of behavior management methods to establish and maintain a structured, supervised, and consistent daily living environment. Parents were taught how to implement and maintain a flexible and individualized behavior plan for each youth within the context of a three-level point system that made youth privileges contingent on compliance with program rules and general progress. Once a youth entered an MTFC home, foster parents were supervised during weekly case manager-led foster parent group meetings as well as through weekday telephone calls that included data collection on youth progress and problems during the previous 24 hr. Foster parents also had continuous emergency access via a pager to case managers. While in foster care, youth continued to attend public school. Youth activities at school were monitored by treatment foster parents via a school point card that the boys were required to carry and have teachers complete throughout each day. In addition to this day-to-day behavioral milieu, MTFC included individual and natural family therapy conducted by behaviorally oriented staff therapists. Youth participated in weekly individual therapy sessions focused on prosocial skill building in problem solving, perspective taking, and emotional expression. The youth's anticipated family of residence during the posttreatment phase of the study (in most cases, the biological or stepfamily of the youth) participated in weekly natural family therapy sessions focused on parenting skill building in supervision, encouragement, discipline, and problem solving. As part of family therapy, home visits were used throughout the program for parents and youth to practice their skills in the context of their family milieu. A case manager coordinated all treatment services. Natural families also had continuous emergency access to their case manager. The case managers, program director, and project clinical consultant provided ongoing supervision of the individual and family therapists in weekly 2-hr group meetings and in individual contacts as needed. The MTFC program model and procedures are described in detail in Chamberlain (1994).
	Outcome measures: Health outcome 1 Tobacco use mean score at 12 months/18 months: 3.30 SD 1.81 (n=37)/2.27 SD 1.89 (n=32). Intervention effect on change in tobacco use at 12 months follow up: beta coefficient -0.15 (P>0.05). Intervention effect on change in tobacco use at 18 months follow up: beta coefficient -0.34 (P<0.01)

		Health outcome 2 Marijuana use mean score at 12 months/18 months: 1.57 SD 1.07 (n=37)/1.50 SD 1.02 (n=32). Intervention effect on change in marijuana use at 12 months follow up: beta coefficient -0.10 (P>0.05). Intervention effect on change in marijuana use at 18 months follow up: beta coefficient -0.30 (P<0.01) Health outcome 3 Alcohol use mean score at 12 months/18 months: 1.57 SD 0.99 (n=37)/1.69 SD 1.03 (n=32). Intervention effect on change in alcohol use at 12 months follow up: beta coefficient -0.16 (P>0.05). Intervention effect on change in alcohol use at 18 months follow up: beta coefficient -0.14 (P>0.05) Health outcome 4 Other drug use mean score at 12 months/18 months: 1.24 SD 0.55 (n=37)/1.19 SD 0.54 (n=32). Intervention effect on change in other drug use at 12 months follow up: beta coefficient -0.26 (P<0.05). Intervention effect on change in other drug use at 18 months follow up: beta coefficient -0.24 (P<0.05)
	Group Care (N = 42) Youth were placed in 1 of 11 group care programs in the state, some quite distant from the local community. Group homes varied in size from 6 to 15 youths. All programs used rotating shift staffing. The type of treatment used in GC programs varied. The majority used some variation of the positive peer culture approach (PPC; Vorrath & Brendtro, 1985). In most PPC programs, youths participated in both individual and group therapy during at least part of their stay and attended program operated schools. Ongoing contact with family members was encouraged in most programs, and 55% of GC participants had at least some family therapy sessions.	
	Outcome measures	Health outcome 1 Tobacco use mean score at 12 months/18 months: 3.79 SD 1.69 (n=39)/3.87 SD 1.66 (n=38) Health outcome 2 Marijuana use mean score at 12 months/18 months: 1.90 SD 1.27 (n=39)/2.34 SD 1.48 (n=38) Health outcome 3 Alcohol use mean score at 12 months/18 months: 1.95 SD 1.12 (n=39)/2.05 SD 1.16 (n=38) Health outcome 4 Other drug use mean score at 12 months/18 months: 1.59 SD 1.12 (n=39)/1.61 SD 1.13 (n=38)
Risk of Bias	**Domain 1: Bias arising from the randomisation process**	

	High **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low **Domain 2b: Risk of bias due to deviations from the intended interventions (effect of adhering to intervention)** Low **Domain 3. Bias due to missing outcome data** Low **Domain 4. Bias in measurement of the outcome** Low **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** High (Method of randomization not given. No baseline characteristics provided to assess the success of randomization. No blinding. Outcomes are from records – the accuracy of which might be variable.) **Overall Directness** Partially applicable (USA-based study)

Suomi 2020

Study details

Study type	Cluster randomised controlled trial
Study location	Australia
Study setting	Preparation and support provided by caseworkers to parents before and after their contact visits with children in the out of home care system
Study dates	2015 to 2018
Duration of follow-up	9 months
Sources of funding	Australian Research Council
Inclusion criteria	Care situation in long-term care at one of the participating agencies, and having regular supervised contact with at least one parent Age 0 - 14 years of age
Sample size	183 children
Split between study groups	8 clusters allocated to intervention group (100 children) 7 clusters allocated to control group (83 children)

Loss to follow-up	intervention group = 10 children control group = 5 children
% Female	Not reported for total sample
Mean age (SD)	Not reported for total sample
Outcome measures	Mental health outcome 1 Strengths and Difficulties Questionnaire. A widely-used scale which assesses levels of internalising and externalising psychosocial problems and prosocial behaviours. The SDQ is completed by the primary carer of the child, normally the parent, as they are best placed to comment on the child's day-to-day behaviour. In this case, carers completed the SDQ in relation to the study child in their care, as they were in daily contact with the child and best placed to respond; The SDQ categorises the child's behaviours into four risk categories (1) 'close to average' (about 80 % of the population); (2)'slightly raised' (10 % of the population); (3) 'high' (5 % of the population) and 'very high' (5 % of the population). Wellbeing outcome 1 parent potential for child abuse measured by Brief Child Abuse Potential inventory (BCAP) Relationship outcome 1 The quality of relationships between children, parents and carers (measured using the Child Parent Relationship Scale (CPRS) short form which assesses levels of closeness and conflict Carer-focussed outcome parent and carer distress measured by the Depression Anxiety Stress Scale-21 (DASS-21) Carer focussed outcome 2 satisfaction with contact visits reported by parents

Study arms

kContact (N = 100)
The intervention was targeted at the individual participant level with caseworkers at the eight intervention agency sites providing additional supports to parents before and after each contact visit with their child (100 study children). The additional supports were provided by a key worker – that is, a caseworker who had an existing relationship with the parent or who was best placed to develop one in relation to their contact visits. In brief, the four components of the intervention included: (1) planning for contact visits: identifying challenges and discussing expectations and concerns in the context of the children's needs; (2) identifying the goals and aims parents would like to achieve during visits; (3) encouraging parents to reflect on what worked well, and validating parents' feelings about the visit (post-visit) and; (4) reviewing the broader goals of visits and progress towards these goals. The main component of the kContact intervention consisted of the key workers contacting parents by telephone before and after each contact visit to provide them with support. This support consisted of, in general, clarifying parents' concerns and expectations about contact, and providing practical and emotional support for the next visit with the study child. Workers each received a manual detailing the four intervention stages and providing guidance for their practice, plus half-a-day training by an experienced social work practitioner (the Intervention Coordinator) which included practical exercises and examples. Fidelity of the intervention was monitored via the use of checklists which were completed by key workers who documented the extent and content of their intervention delivery. Checklists also served as reminders of the intervention stages and were complemented by extensive direct support provided to individual workers by the Intervention Coordinator.

Study type	Randomised controlled trial (RCT)
% Female	47%
Mean age (SD)	7.5 ± 3.6 years
Condition specific characteristics	non-white ethnicity Indigenous - 19% Type of care Kinship care - 19.0%

	time spent in care years in current placement: 3.8 ± 2.9 years Placement changes Mean number of placements: 2.0 ± 3.5

Services as Usual (N = 83)
In the control group (7 clusters, 83 study children), the sites continued to provide supervised contact services to children and their parents as outlined in their own case management plan and agreed contact arrangements, or "treatment as usual", as identified at baseline. "Treatment as usual" predominantly involved workers checking in with the parent prior to the scheduled visit about practical issues, such as the date, time and location of the visit and whether the parent complied with any conditions for their visits, such as clean urine screens, and not bring inappropriate people along. They did not receive systematic supports in planning for contact visits or practical/emotional support in the lead up or after contact visits, as targeted in the intervention. The training and resources to adopt the intervention were made available to the control sites at the conclusion of the study. Baseline interviews with caseworkers showed that both intervention and control group agencies were delivering similar contact supports prior to randomization.

Study type	Randomised controlled trial (RCT)
% Female	45.8%
Mean age (SD)	8.2 ± 3.6 years
Condition specific characteristics	non-white ethnicity 16.8% Type of care Kinship care: 16.2%

	time spent in care years in current placement: 3.6 ± 2.8 years Placement changes number of placements: 1.5 ± 2.0

Risk of Bias

Section	Question	Answer
1a. Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Low *(However, no statistical analysis of baseline differences was conducted)*
1b. Bias arising from the timing of identification and recruitment of individual participants in relation to timing of randomisation	Risk of bias judgement for the timing of identification and recruitment of individual participants in relation to timing of randomisation	Low
2. Bias due to deviations from intended interventions (If your aim is to assess the effect of assignment to intervention, answer the following questions).	Risk of bias judgement for deviations from intended interventions	Low
3. Bias due to missing outcome data	Risk of bias judgement for missing outcome data	High *(Reasons for missing data were not clearly explained, nor was missing data considered for its importance statistically. Amount of missing data appeared to be substantial for certain outcomes.)*
4. Bias in measurement of the outcome	4.1a Were outcome assessors aware that a trial was taking place?	Yes
	Risk of bias judgement for measurement of the outcome	Some concerns *(Outcomes could have been affected by knowledge of*

Section	Question	Answer
		intervention received, outcome assessors appeared to be unblinded)
5. Bias in selection of the reported result	Risk of bias for selection of the reported result	Low
Overall bias and Directness	Risk of bias judgement	High
	Overall Directness	Indirectly applicable *(Non-UK study)*

Taussig 2010/Weiler 2019

Study type	Randomised controlled trial (RCT) See also Taussig 2012 in review question 1.1
Study location	USA
Study setting	Preadolescent children in foster care
Study dates	July 2002 to November 2010
Duration of follow-up	6 months and 9 months
Sources of funding	the National Institute of Mental Health, the Kempe Foundation, Pioneer Fund, Daniels Fund, Children's Hospital Research Institute, the National Institutes of Health (NIH).
Inclusion criteria	Care situation

	Placed in foster care by court order because of maltreatment in the preceding year; living within proximity to study site (35 minutes drive); lived with their substitute caregiver for at least 3 weeks; only children who had open cases at the start of the study time frame were included in analyses. Age 9-11 years old Language proficiency in English
Sample size	156
Split between study groups	Intervention = 79 Control = 77
Loss to follow-up	Intervention = 3 Control = 9 NB: loss to follow up/missing data varies by outcome and timepoint
% Female	48.2%
Mean age (SD)	10.46 ± 0.88 years
Condition specific characteristics	non-white ethnicity 45.7% Type of care Nonrelative foster care: 55.5%; Relative foster care: 36.4%; Residential treatment centre: 8.2% Exploitation or trafficking

	Maltreatment type: physical abuse: 32.7%; sexual abuse: 14.5%; neglect (failure to provide): 50.0%; Neglect (lack of supervision): 75.5%; emotional maltreatment: 64.5%; Moral neglect (exposure to illegal activity): 33.6% Behaviour that challenges Child Behaviour Checklist externalising score: 64.13 ± 11.27 Placement changes Placements pre-intervention: 3.18 ± 2.60
Outcome measures	Mental health outcome 1 Mental health factor score, multi-informant, Mean (SD): Mental health functioning was assessed using (1) child self-report on the posttraumatic stress and dissociation scales of the Trauma Symptom Checklist for Children (TSCC)21, a widely-used symptom-oriented measure of mental health problems, and (2) a multiinformant index of mental health problems. The mental health index was created based on principal components factor analysis of the children's mean TSCC scores, and the Internalizing scales of the Child Behavior Checklist (CBCL)22 and the Teacher Report Form (TRF),22 completed by children's caregivers and teachers. Mental health outcome 2 Posttraumatic symptoms, youth report, t score, Mean (SD): assessed using the posttraumatic stress scales on the Trauma Symptom Checklist for Children (TSCC) Wellbeing outcome 1 Positive coping, youth report, Mean (SD): assessed using Positive and Negative Coping scales from The Coping Inventory which includes 42 strategies for coping with problems Wellbeing outcome 2 Negative coping, youth report, Mean (SD): assessed using Positive and Negative Coping scales from The Coping Inventory which includes 42 strategies for coping with problems Wellbeing outcome 3 Global self-worth, youth report, Mean (SD): assessed using The Global Self-Worth scales of The Self-Perception Profile for Children Wellbeing outcome 4 Social acceptance, youth report, Mean (SD): assessed using the Social Acceptance scales of The Self-Perception Profile for Children Mental health outcome 3 Dissociation symptoms, youth report, t score, Mean (SD): assessed using the dissociation scales of the Trauma Symptom Checklist for Children (TSCC) Mental health outcome 4 Received MH therapy ever, youth report, No. (%): Children's use of mental health services and psychotropic medications were assessed based on: (1) caregiver-report of services and medications used within the past month, and (2) child-report of services and medications used within the past 9 months at T2 and the past 6 months at T3. Mental health outcomes 5 Received MH therapy past month, caregiver report, No. (%): Children's use of mental health services and psychotropic medications were assessed based on: (1) caregiver-report of services and medications used within the past month, and (2) child-report of services and medications used within the past 9 months at T2 and the past 6 months at T3.

	Mental health outcome 6 Medication for MH problems ever, youth report, No. (%): Children's use of mental health services and psychotropic medications were assessed based on: (1) caregiver-report of services and medications used within the past month, and (2) child-report of services and medications used within the past 9 months at T2 and the past 6 months at T3. Mental health outcome 7 Medication for MH problems past month, caregiver report, No. (%): Children's use of mental health services and psychotropic medications were assessed based on: (1) caregiver-report of services and medications used within the past month, and (2) child-report of services and medications used within the past 9 months at T2 and the past 6 months at T3. Quality of Life 1 Quality of life, youth report, Mean (SD): assessed using d the Life Satisfaction Survey, a quality of life measure, which asked respondents to rate satisfaction in several different domains (e.g. school, home, health, friendships) Wellbeing outcome 5 Social support factor score, youth report, Mean (SD): assessed using a Social Support Factor Score, created based on principal components factor analysis of scale scores from The People in My Life – Short Form used to assess social support from caregivers, peers, and mentors (each in a separate scale).
Study arms	**Fostering Healthy Futures (N = 76)** The 9-month FHF preventive intervention consisted of 2 components: (1) manualized skills groups and (2) one-on-one mentoring. The program was designed to be "above and beyond treatment as usual;" both children in the control and intervention groups should have received any services that would typically be provided to them through social services (eg, therapy, visitation). Although eligibility criteria required that children be in foster care at the start of the intervention, their participation continued (with appropriate consent) if they reunified or changed placements during the intervention. The intervention was mainly child focused because the skills groups were for children only, and mentoring activities involved one-on-one activities in the community. The interventionists (ie, mentors and program staff) never made recommendations to social services regarding placements or permanency goals, although mentors and program staff did report all suspected maltreatment. SKILLS GROUPS: FHF skills groups met for 30 weeks for 1.5 hours per week during the academic year and included 8 to 10 children and 2 group facilitators. The FHF skills groups followed a manualized curriculum that combined traditional cognitive-behavioral skills group activities with process-oriented material. Units addressed topics including emotion recognition, perspective taking, problem solving, anger management, cultural identity, change and loss, healthy relationships, peer pressure, abuse prevention, and future orientation. The skills group curriculum was based on materials from evidence based skills group programs, including Promoting Alternative Thinking Strategies and Second Step, which were supplemented with project-designed exercises from multicultural sources. MENTORING: The mentoring component of the FHF program provided 30 weeks of one-on-one mentoring for each child. Mentors were graduate students in social

	work who received course credit for their work on the project. Mentors were each paired with 2 children with whom they spent 2 to 4 hours of individual time each week. Mentors received weekly individual and group supervision and attended a weekly didactic seminar, all of which were designed to support mentors as they (1) created empowering relationships with children, serving as positive examples for future relationships; (2) advocated for appropriate services; (3) helped children generalize skills learned in group by completing weekly activities; (4) engaged children in a range of extracurricular, educational, social, cultural, and recreational activities; and (5) promoted attitudes to foster a positive future orientation.

Duration of follow-up	6 months
Loss to follow-up	Intervention = 3 Control = 9
% Female	48%
Mean age (SD)	10.4 ± 0.9 years
Condition specific characteristics	non-white ethnicity 58% time spent in care 0.6 ± 0.3 years Exploitation or trafficking Maltreatment type: physical abuse: 39%; sexual abuse: 9%; neglect (failure to provide): 47%; Neglect (lack of supervision): 77%; emotional maltreatment: 57%; Moral neglect (exposure to illegal activity): 40%
Outcome measures	Mental health outcome 1 Adjusted mental health factor score, multi-informant at 6 months/9 months, Mean (SD): 0.04 SE 0.11/-0.25 SE 0.11. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse.

		Mental health outcome 2 Adjusted posttraumatic symptoms at 6 months/9 months, youth report, t score, Mean (SD): 44.28 SE 1.12/41.36 SE 1.02. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Wellbeing outcome 1 Adjusted positive coping, youth report, Mean: 1.96 SE 0.04/2.00 SE 0.04 Wellbeing outcome 2 Adjusted Negative coping, youth report, Mean: 1.21 SE 0.02/1.20 SE 0.02. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Wellbeing outcome 3 Adjusted global self-worth, youth report, Mean: 3.47 SE 0.06/3.58 SE 0.06. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Wellbeing outcome 4 Adjusted social acceptance, youth report, Mean: 3.20 SE 0.08/3.30 SE 0.07. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Mental health outcome 3 Dissociation symptoms at 6 months/9 months, youth report, t score, Mean (SD): 45.39 SE 1.07/42.30 SE 1.00 Mental health outcome 4 Adjusted Received recent MH therapy, youth report, (%) at 6 months/9 months: 63%/53%. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Mental health outcomes 5 Adjusted on current MH therapy, caregiver report, (%) at 6 months/9 months: 55%/48%. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Mental health outcome 6 Adjusted on medication for MH problems recently, youth report, (%): 9%/10%. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Mental health outcome 7 Adjusted on current medication for MH problems, caregiver report, (%): 13%/10%. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Quality of Life 1

	Adjusted Quality of life at 6 months/12 months, youth report, Mean (SD): assessed using d the Life Satisfaction Survey, a quality of life measure, which asked respondents to rate satisfaction in several different domains (e.g. school, home, health, friendships): 2.78 SE 0.03/2.78 SE 0.03. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Wellbeing outcome 5 Adjusted social support factor score, youth report, Mean: 0.12 SE 0.10/0.00 SE 0.11. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse.

Care as Usual (N = 68)
both children in the control and intervention groups should have received any services that would typically be provided to them through social services (eg, therapy, visitation).

Duration of follow-up	6 months
Loss to follow-up	Intervention = 3 Control = 9
% Female	51%
Mean age (SD)	10.4 ± 0.9 years
Condition specific characteristics	non-white ethnicity 53% Exploitation or trafficking Maltreatment type: physical abuse: 25%; sexual abuse: 14%; neglect (failure to provide): 52%; Neglect (lack of supervision): 74%; emotional maltreatment: 66%; Moral neglect (exposure to illegal activity): 27%
Outcome measures	Mental health outcome 1 Adjusted mental health factor score at 6 months/9 months, multi-informant, Mean: -0.04 SE 0.11/0.27 SE 0.12. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse.

		Mental health outcome 2 Adjusted posttraumatic symptoms score at 6 months/9 months, youth report, t score, Mean: 45.33 SE 1.19/44.15 SE 1.08. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Wellbeing outcome 1 Adjusted positive coping at 6 months/9 months, youth report, Mean: 1.93 SE 0.04/1.92 SE 0.04. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Wellbeing outcome 2 Adjusted negative coping score at 6 months/9 months, youth report, Mean: 1.22 SE 0.02/1.25 SE 0.02. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Wellbeing outcome 3 Adjusted global self-worth score at 6 months/9 months, youth report, Mean: 3.44 SE 0.07/3.48 SE 0.06. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Wellbeing outcome 4 Adjusted social acceptance score at 6 months/9 months, youth report, Mean: 3.08 SE 0.09/3.20 SE 0.07. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Mental health outcome 3 Adjusted dissociation symptoms score at 6 months/9 months, youth report, t score, Mean: 46.64 SE 1.14/45.96 SE 1.06. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Mental health outcome 4 Adjusted on MH therapy recently at 6 months/9 months, youth report, (%): 71%/71%. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Mental health outcomes 5 Adjusted currently on MH therapy at 6 months/9 months, caregiver report, (%): 68%/58%. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Mental health outcome 6 Adjusted on medication for MH problems recently at 6 months/9 months, youth report, (%): 14%/15%. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Mental health outcome 7 Adjusted on medication for MH problems currently at 6 months/9 months, caregiver report, (%): 12%/17%. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse.

	Quality of Life 1 Adjusted Quality of life at 6 months/9 months, youth report, Mean: 2.66 SE 0.03/2.74 SE 0.03. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse. Wellbeing outcome 5 Adjusted social support factor score at 6 months/9 months, youth report, Mean: -0.13 SE 0.11/-0.02 SE 0.12. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse.
Risk of bias	**Domain 1: Bias arising from the randomisation process** Some concerns (Unclear how randomisation performed or if allocation concealment, however baseline characteristics were well reported and did not suggest significant differences between groups) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low (likely modified intent to treat) **Domain 3. Bias due to missing outcome data** Low (for the large majority of outcomes the amount of missing data was less than 10%) **Domain 4. Bias in measurement of the outcome** Some concerns (outcomes were large majority carer and youth reported. It is possible that some of these outcomes could have been influenced by knowledge of intervention, but this is unlikely - most outcomes were from validated scales) **Domain 5. Bias in selection of the reported result** Low

	Overall bias and Directness Some concerns (Unclear how randomisation was performed or if allocation concealment. Unclear if any blinding procedures employed and outcomes were generally self-reported or carer-reported. It is likely that these participants were aware of any interventions received. Some differences at baseline but these were adjusted for in analysis. Loss to follow up was low however, those lost to follow-up had lower IQs and more mental health problems than those interviewed) **Overall Directness** Indirectly applicable (USA based study)

Taussig 2019

Study details

Study type	Randomised controlled trial (RCT)
Study location	United States
Study setting	in Denver, Colorado, and expanded to four metro area counties
Study dates	July 2002 to November 2010
Duration of follow-up	10 months

Sources of funding	the National Institute of Mental Health
Inclusion criteria	Care situation had been placed in any type of out-of-home care (e.g., foster care, kinship care, residential treatment) by court order due to maltreatment within the preceding year Age 9-11 years old Language proficiency in English
Sample size	426
Split between study groups	Fostering Healthy Futures = 233 Usual Services = 193
Loss to follow-up	Fostering Healthy Futures = 19 Usual Services = 26
% Female	48.1%
Mean age (SD)	10.28 ± 0.90 years
Condition specific characteristics	non-white ethnicity 49.4%

	Type of care Foster care Kinship care Congregate care existing mental health problems at baseline Mental health therapy = 79.8% Medication Psychotropic medication - 19.3% Other Child welfare characteristics: Physical abuse = 27.0% Sexual abuse = 11.0% Emotional abuse = 63.1% Failure to provide neglect = 48.4% Lack of supervision neglect = 83.3% Educational neglect = 26.3% Moral-legal maltreatment = 28.2% Number of referrals to social services = 4.69 ± 5.26
Outcome measures	Mental health outcome 1

	Mental health functioning was assessed using the Posttraumatic Stress and Dissociation scales of the child self-report Trauma Symptom Checklist for Children (TSCC; Briere, 1996), a widely used symptom-oriented measure of mental health problems, as well as the internalizing scales of the Child Behaviour Checklist (CBCL) and the Teacher Report Form (TRF), both well-normed measures of child emotional and behaviour problems (Achenbach & Rescorla, 2001). A multi-informant Mental Health Index was created based on principal components factor analysis of the children's mean TSCC scores, and the internalizing scales of the CBCL and TRF. Because teachers were only interviewed at T2, the baseline mental health index score consisted of only the TSCC and CBCL scales. Mental health outcome 2 Children's use of mental health services and psychotropic medications were assessed based on child and caregiver reports at Time 1 and Time 2. Because of concerns related to foster parents not knowing the child's history of therapy and medication use, authors asked the caregivers to report on current use at both timepoints, whereas children were asked to report on lifetime use at baseline and past 6-month use at T2. Mental health service and psychotropic medication use were dichotomized at T1 and T2, such that if either the child or caregiver reported use in the timeframe, they were coded as 1; if neither informant reported use, they were coded a 0. Quality of Life 1 Children completed the Life Satisfaction Scale (Andrews & Withey, 1976) which asks respondents to rate satisfaction in several different domains (e.g., school, home, health, friendships, leisure activity).

Study Arms

Fostering Healthy Futures (N = 213)
The 9-month FHF preventive intervention consisted of 2 components: (1) manualized skills groups and (2) one-on-one mentoring. The program was designed to be "above and beyond treatment as usual;" both children in the control and intervention groups should have received any services

that would typically be provided to them through social services (eg, therapy, visitation). Although eligibility criteria required that children be in foster care at the start of the intervention, their participation continued (with appropriate consent) if they reunified or changed placements during the intervention. The intervention was mainly child focused because the skills groups were for children only, and mentoring activities involved one-on-one activities in the community. The interventionists (ie, mentors and program staff) never made recommendations to social services regarding placements or permanency goals, although mentors and program staff did report all suspected maltreatment. SKILLS GROUPS: FHF skills groups met for 30 weeks for 1.5 hours per week during the academic year and included 8 to 10 children and 2 group facilitators. The FHF skills groups followed a manualized curriculum that combined traditional cognitive-behavioral skills group activities with process-oriented material. Units addressed topics including emotion recognition, perspective taking, problem solving, anger management, cultural identity, change and loss, healthy relationships, peer pressure, abuse prevention, and future orientation. The skills group curriculum was based on materials from evidence based skills group programs, including Promoting Alternative Thinking Strategies and Second Step, which were supplemented with project-designed exercises from multicultural sources. MENTORING: The mentoring component of the FHF program provided 30 weeks of one-on-one mentoring for each child. Mentors were graduate students in social work who received course credit for their work on the project. Mentors were each paired with 2 children with whom they spent 2 to 4 hours of individual time each week. Mentors received weekly individual and group supervision and attended a weekly didactic seminar, all of which were designed to support mentors as they (1) created empowering relationships with children, serving as positive examples for future relationships; (2) advocated for appropriate services; (3) helped children generalize skills learned in group by completing weekly activities; (4) engaged children in a range of extracurricular, educational, social, cultural, and recreational activities; and (5) promoted attitudes to foster a positive future orientation.

% Female	48.9%
Mean age (SD)	10.31 ± 0.90 years
Condition specific characteristics	non-white ethnicity 48.6% Type of care Foster care = 50.3%

	Kinship care = 56.7% Congregate care = 53.8% existing mental health problems at baseline Mental health therapy = 83.2% Medication Psychotropic medication = 19.8% Other Child welfare characteristics: Physical abuse = 29.6% Sexual abuse = 9.4% Emotional abuse = 62.2% Failure to provide neglect = 46.8% Lack of supervision neglect = 82.0% Educational neglect = 28.8% Moral-legal maltreatment = 28.8% Number of referrals to social services = 4.68 ± 5.20
Services as Usual (N = 167)	

Assessment only. Both children in the control and intervention groups should have received any services that would typically be provided to them through social services (eg, therapy, visitation).

% Female	47.2%
Mean age (SD)	10.25 ± 0.90 years
Condition specific characteristics	non-white ethnicity 50.3% Type of care Foster care = 46.1% Kinship care = 38.6% Congregate care = 42.0% existing mental health problems at baseline Mental health therapy = 75.6% Medication Psychotropic medication = 18.7% Other Child welfare characteristics: Physical abuse = 23.8% Sexual abuse = 13.0% Emotional abuse = 64.2%

	Failure to provide neglect = 50.3% Lack of supervision neglect = 85.0% Educational neglect = 23.3% Moral-legal maltreatment = 27.5% Number of referrals to social services = 4.70 ± 5.35

Risk of Bias

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Some concerns *(Unclear randomisation details and unclear if allocation concealment)*
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Low
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	High *(Missing data was as high as 20% for Mental health index outcomes. It is unclear how groups differed for missing data.)*

Section	Question	Answer
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Some concerns *(It was unclear that outcome assessors were blinded for study allocation)*
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low
Overall bias and Directness	Risk of bias judgement	High *(For mental health index outcomes the risk of bias is high, for all other outcomes the risk of bias is some concerns)*
	Overall Directness	Indirectly applicable *(Non-UK based study)*

Van Andel 2016

Study type	Randomised controlled trial (RCT)
Study location	Netherlands
Study setting	Preschool aged children in foster care
Study dates	between July 2009 and August 2013.
Duration of follow-up	6 months post-baseline

Sources of funding	not reported
Inclusion criteria	Age preschool aged Care situation 8 to 10 weeks after the child had been placed in foster care; The expected duration of placement in the foster family had to be at least 6 months;
Exclusion criteria	health problems birth deficits, severe cognitive dysfunction, and problems leading to an indication for treatment as indicated by the foster care services (implicating that there was a high risk of placement breakdown if the child would be assigned to a "foster care as usual" condition and/or that evident attachment or psychiatric disorders were present in the child).
Sample size	123
Split between study groups	FFI: 65 CAU: 58
Loss to follow-up	Not reported. However: "Missing values in the posttest group were largely due to replacement of the foster child (dropout) before posttest data could be collected (N = 27). As a result, 96 video recordings in the posttest could be included. In addition to dropout, 10 foster carer questionnaires were not filled in correctly, resulting in 86 questionnaires in the posttest dataset. Thirty-seven salivary cortisol results were missing in the posttest because foster carers did not collect the material or the child was not able to participate, resulting in 59 x 2 (morning, evening) samples of salivary cortisol in the posttest dataset. Missing values were equally distributed between FFI and CAU in pretest and posttest"
% Female	49%
Mean age (SD)	18.8 ± 14.5 months
Outcome measures	Mental health outcome 1

	Salivary cortisol. The "wake up" measurement is the most significant in this regard, because the cortical awakening response seems to decrease most in children with chronic stress (Bernard, Butzin-Dozier, Rittenhouse, & Dozier, 2010; Dozier et al., 2006; Fisher, Gunnar, Chamberlain, & Reid, 2000). Children's saliva was routinely collected twice, once in the morning and once in the afternoon to assess diurnal variation in cortisol levels (Kiess et al., 1995). The first sample was obtained in the morning within 30 min after awakening; the second sample was obtained before going to sleep in the evening of the same day. Foster carers followed a standardized written instruction. In the written instruction, we emphasized that samples should be taken on an ordinary day with no acute stressors present or to be expected (e.g., illness, visits of biological parents). Furthermore, it was emphasized not to brush teeth within 30 min before the measurement (possible contamination with blood) and to carry out the second measurement at least 30 min after dinner on the same day as the first measurement. Relationship outcome Emotional availability scales at 6-months postbaseline. The EAS refers to a semi-structured procedure used to assess dyadic interactions between an adult and a child (Biringen 2008). Parental and child associations among EAS subscales characterize the global emotional quality of the parent– child relationship. The instrument covers six dimensions to be rated. Four dimensions relate to the adult's contribution in the interaction: sensitivity, structuring, non-intrusiveness, and non-hostility. Two dimensions focus on the child's part: responsiveness and involvement. All six scales can be scored from 7 to 29 points. Scores above 18 are considered to be acceptable to good (Biringen, 2008), which implies a positive interaction between parent and child and a sufficient engagement to each other. Acceptable psychometric properties have been reported on the EAS, including interrater reliabilities of the scales in the range of 0.76-0.96. Studies have confirmed hypothesized relations between EAS scores and child–mother attachment and attachment to professional caregivers (Biringen et al., 2012). Other studies have affirmed the expected links between EAS profiles and characteristics of caregivers (e.g., mental health) and children (e.g., children with disabilities) (Biringen, Derscheid, Vliegen, Closson, & Easterbrooks, 2014). Foster carer–foster child interactions were videotaped, both in the pretest and in the posttest, and were afterward rated using the EAS guidelines. The tapes were scored twice by two independent groups of trained professionals (two people, licensed by Biringen to use EAS, 4th ed.) and trained students (four to six people; in-company training on EAS, 4th ed.). If scores per dimension between the two groups differed by more than five points, the tape was analyzed a third time with both groups together and a consensus score was established after discussion. If scores per dimension differed by fewer than five points, the mean score was taken. relationship outcome 2 Parenting stress: NOSI-R. The Dutch version of the PSI (Abidin, Jenkins, & McCaughey, 1992), called the NOSI-R (De Brock et al., 2010), is a self-report questionnaire measuring stress in the family. The NOSI-R contains 75 items, describing the degree of stress experienced by parents in two domains: (1) the parent domain, rating the extent of stress the parent experiences in his or her role as a parent; and (2) the child domain, rating parents' estimation of child factors that contribute to stress in the parent– child relationship. The items are rated on a 4-point scale, ranging from 1 (totally not true) to 4 (totally true). The total score in the two domains is compared with a norm score in which the age of the child is taken into account. Scores above the norm indicate stress in the relation between child and carer.
Study Arms	**Foster family intervention (N = 65)** In six 90-min home visits, foster care workers support foster carers by providing information on interactional and attachment themes in starting relationships ("what and why," which focuses on the carers' perceptions of their interactions with the child; "how," which focuses on other possible ways to interact with the child). Authors developed drawings based on the "circle of security" (Hoffman, Marvin, Cooper, & Powell, 2006) to help foster carers interpret the interaction with their child. Foster care workers also support foster carers by helping to reflect on videotaped recordings of parent– child interactions (first three sessions with successful and relaxed interactions, next three sessions with unsuccessful and more stressful ones). To help foster carers reflect, workers used the drawings and developed structured questions for each session based on clinical-assisted video feedback exposure sessions. Foster care workers also supported foster carers by discussing

	homework assignments (suggested reading: Brok & De Zeeuw, 2008). The sessions follow a fixed protocol and were led by trained foster care workers. The home visits took place once every 2 weeks, covering a period of maximum 3 months.

% Female	51%
Mean age (SD)	19.7 ± 14.4 months
Condition specific characteristics	Exploitation or maltreatment maltreatment of the child: 93% Number of care placements none or one replacement: 77% time in care long term placement: 65% Type of care Nonkinship care: 85%
Outcome measures	Mental health outcome 1 Salivary cortisol. intervention group compared to care as usual for change in salivary cortisol from baseline, beta coefficient (95%CI): not controlled for time of day: 0.08 (-0.41 to 0.57); controlled for time of day: 0.38 (-0.13 to 0.89) Relationship outcome Intervention group compared to care as usual for emotional availability scales subdomains over 6 months follow up, beta-coefficients (95%CI): sensitivity: 2.49 (1.39 to 3.58); Structuring: 2.16 (1.08 to 3.24); Nonintrusiveness: 1.77 (0.69 to 2.85); Responsivity: 1.44 (0.19 to 2.69); Involvement: 0.61 (-0.74 to 1.96) relationship outcome 2 Intervention group compared to care as usual for change in parenting stress over time (Nijmeegse Ouderlijke Stress Index), beta coefficient (95%CI): stress in role as parent: 1.81 (-2.21 to 5.82);stress as a result of child-factors: -2.96 (-8.68 to 2.76); total score: -1.37 (-9.88 to 7.14)

Care as usual (N = 58)

	Care as usual (CAU) consisted of home visits every 2 to 6 weeks to monitor the placement. The purpose is to support foster carers and to organize extra help where needed. In the first 6 weeks of the placement, a plan is made in which it is agreed upon how foster carers, biological parents and foster care will work together and which goals will be pursued. % Female: 51% Mean age (SD): 17.9 ± 14.7 months Condition specific characteristics: Exploitation or maltreatment 89% Number of care placements none or one replacements: 88% time in care long-term placement: 62% Type of care nonkinship foster care: 83%
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Low **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low **Domain 3. Bias due to missing outcome data** Low **Domain 4. Bias in measurement of the outcome**

	High **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** High (No blinding and some of the outcomes are fairly subjective.) **Overall Directness** Partially applicable (Study took place in the Netherlands)

Van Lieshout 2019

Study type	Cluster randomised controlled trial
Study location	Netherlands
Study setting	Boys in residential youth care
Study dates	not reported
Duration of follow-up	postintervention, 6 months
Sources of funding	the Netherlands Organization for Health Research and Development

Inclusion criteria	Care situation institutions that offer residential care to boys Age age 12 to 18 Gender Male
Exclusion criteria	Mental health Having severe autism spectrum disorders (ASD); having an IQ level below 80, and being known by the institution to suffer from post-traumatic stress due to sexual abuse or to have been convicted as a perpetrator of sexual assault Health having severe autism spectrum disorders (ASD) Behaviour being unable to function in group meetings (e.g., due to aggression regulation problems),
Sample size	177
Split between study groups	Make a Move: 76 Control group: 99
Loss to follow-up	at 8 weeks follow up (postintervention) Make a Move: 14 Control group: 40 at 6 months follow up:

	Make a Move: 56 Control group: 53
% Female	0%
Mean age (SD)	14.8 ± 1.64 years
Condition specific characteristics	non-white ethnicity The majority were of Dutch origin (61.6%). A few participants had a (partly) Antillean-Surinam (10.7%), or Turkish or Moroccan (5.1%) background Behaviour that challenges Regarding reported sexual harassment behaviors, 40.9% reported to have sometimes or regularly tried to persuade somebody into having sex and 23.8% had sometimes or regularly taken advantage of another person's drunkenness to get sex, 23.5% had sometimes or regularly used nagging to get sex, and 17.2% had sometimes or regularly lied to get sex. One in 10 (9.7%) had sometimes or regularly become angry towards a partner, 4.0% had sometimes or regularly used violence, and 4.0% had sometimes or regularly threatened their partner with violence to get sex. Sexual history most (71%) had had sexual intercourse, and 19% reported having had sexual experience without intercourse (i.e., touching, oral sex). Age at first intercourse ranged from 6 to 17 years old (M = 13.3, SD = 1.85, median 13 years old). Reported number of sexual partners ranged from 1 to 30 (median = 5). Ninety-two percent had had a relationship in the past 2 years.
Outcome measures	Wellbeing outcome 1 Self-esteem: self-esteem was measured Self-esteem was measured with five items (α = .64) taken from Heatherton and Polivy (1991), for example, "I am confident about my talents" (1 = totally disagree, 7 = totally agree). Emotional outcome 1 Empathy score: empathy was based on Bos, Dijker, and Koomen (2007) and Van Alphen, Dijker, Bos, van den Borne, and Curfs (2011). Boys were asked to read a short scenario in which a boy assaulted a girl on the street and then had to indicate by use of two items the degree to which they experienced empathy ("I feel empathy/compassion for the girl," 1 = totally disagree, 7 = totally agree; r = .71). Confidence and self-efficacy 1) Self-efficacy to deal with peer pressure score: Self-efficacy to deal with peer pressure was measured with three items (α = .60), for example, "I'm able to say no to my friends when I don't agree with them" (1 = no, absolutely not; 7 = yes, definitely); 2) Self-efficacy toward self-control was measured with the following statement: "Imagine you have a girlfriend. You want to have sex but she does not want to." followed by four response questions, such as "would you manage to . . . not become angry" (1 = no, absolutely not; 7 = yes, definitely; α = .85).

	Sexual health outcome 1 Adverse sexual beliefs score: measured using three items (α = .68), for example, “I think women mostly date men as to make use of them” (1 = totally disagree, 7 = totally agree) and adapted from Burt (1980). Sexual health outcome 2 Attitude towards dating violence: Attitude toward dating violence was measured by nine items (α = .81), for example, “I think that a girl who cheats on her boyfriend deserves to be beaten” (1 = totally disagree, 7 = totally agree) and was based on Price, Byers, & the Dating Violence Research Team (1999). Sexual health outcome 3 Rape attitude score: e included eight items (α = .91), for example, “I think a boy is allowed to force a girl into having intercourse when she has allowed him to take off her pants” (1 = totally disagree, 7 = totally agree) and was based on Maxwell, Robinson, and Post (2014). Sexual health outcome 4 Sexual expectant outcomes: The scale Outcome Expectancies (α = .89) was based on O’Donohue et al. (2003). The scale measured to what extent the participant would expect seven outcomes that could occur as a consequence of persuading a girlfriend who is not in the mood to have sex (e.g., I would enjoy, she would enjoy, I would feel guilty; 1 = no, definitely not, 7 = yes, absolutely). Sexual health outcome 5 Attitudes towards communicating with a sexual partner score: attitudes toward communicating with a partner (“To ask my girlfriend what she does and does not want during sex, seems to me . . .”) each measured by one statement with three semantic differentials (very bad, very good; very unimportant, very important; very uncomfortable, very comfortable). Sexual health outcome 6 Attitudes towards self-control score: attitudes toward self-control (“To only have sex with my girlfriend when she also wants it, seems to me . . .”) each measured by one statement with three semantic differentials (very bad, very good; very unimportant, very important; very uncomfortable, very comfortable). Sexual health outcome 7 Self-efficacy towards communication: measured by a scale which included five items (α = .87), such as “I’m able to communicate with my sex partner about what we do and do not want regarding sex” (1 = no, absolutely not; 7 = yes, definitely) Sexual health outcome 8 Social norms about sexual conduct score: Social norms were measured with four items (α = .61), for example, “my friends believe it’s okay to force a date into having sex when you spent a lot of money on her” (1 = no, absolutely not; 7 = yes, definitely). Sexual health outcome 9 Sexual behaviour (intention): intention was measured with three items (α = .78) and assessed to what extent subjects expect to become angry, start persuading, or start whining when they want to have sex but their girlfriend does not (1 = no, absolutely not; 7 = yes, definitely).
Study arms	**"Make a Move" Sexual Harassment Prevention Program (N = 64)**

	Make a Move is a group intervention for boys aged 12 to 17 years about sexuality and relationships, designed to prevent sexual harassment and dating violence. The program consists of eight weekly meetings of 90 min each. The themes covered by the eight meetings are, in order, men, image, girls, sex, flirting, dating, pleasurable sex, and the future. Each meeting includes several exercises such as role play, discussion, and watching short movie clips. A competitive element runs through the program. Boys can earn credits for doing the exercises as well as for active participation and good manners, both individually and as a group. At each meeting, a new score-keeper is appointed among the boys, and the final winner receives an incentive.

Study type	Cluster randomised controlled trial
Study location	Netherlands
Study setting	Boys in residential youth care
Study dates	not reported
Duration of follow-up	postintervention, 6 months
Sources of funding	the Netherlands Organization for Health Research and Development
Inclusion criteria	Care situation institutions that offer residential care to boys Age age 12 to 18 Gender Male

	Exclusion criteria	Mental health Having severe autism spectrum disorders (ASD); having an IQ level below 80, and being known by the institution to suffer from post-traumatic stress due to sexual abuse or to have been convicted as a perpetrator of sexual assault Health having severe autism spectrum disorders (ASD) Behaviour being unable to function in group meetings (e.g., due to aggression regulation problems),
	Sample size	177
	Split between study groups	Make a Move: 76 Control group: 99
	Loss to follow-up	at 8 weeks follow up (postintervention) Make a Move: 14 Control group: 40 at 6 months follow up: Make a Move: 56 Control group: 53
	% Female	arm level baseline characteristics not reported

	Mean age (SD)	arm level baseline characteristics not reported
	Condition specific characteristics	Other Study states: "There was no significant baseline difference on any of the 14 outcome measures (ps ≥ .21), suggesting successful randomization of institutions and participants across intervention and control conditions."
	Outcome measures	Wellbeing outcome 1 Self-esteem: self-esteem was measured Self-esteem was measured with five items (α = .64) taken from Heatherton and Polivy (1991), for example, “I am confident about my talents” (1 = totally disagree, 7 = totally agree). Emotional outcome 1 Empathy score: empathy was based on Bos, Dijker, and Koomen (2007) and Van Alphen, Dijker, Bos, van den Borne, and Curfs (2011). Boys were asked to read a short scenario in which a boy assaulted a girl on the street and then had to indicate by use of two items the degree to which they experienced empathy (“I feel empathy/compassion for the girl,” 1 = totally disagree, 7 = totally agree; r = .71). Confidence and self-efficacy 1) Self-efficacy to deal with peer pressure score: Self-efficacy to deal with peer pressure was measured with three items (α = .60), for example, “I’m able to say no to my friends when I don’t agree with them” (1 = no, absolutely not; 7 = yes, definitely); 2) Self-efficacy toward self-control was measured with the following statement: “Imagine you have a girlfriend. You want to have sex but she does not want to.” followed by four response questions, such as “would you manage to . . . not become angry” (1 = no, absolutely not; 7 = yes, definitely; α = .85). Sexual health outcome 1 Adverse sexual beliefs score: measured using three items (α = .68), for example, “I think women mostly date men as to make use of them” (1 = totally disagree, 7 = totally agree) and adapted from Burt (1980). Sexual health outcome 2 Attitude towards dating violence: Attitude toward dating violence was measured by nine items (α = .81), for example, “I think that a girl who cheats on her boyfriend deserves to be beaten” (1 = totally disagree, 7 = totally agree) and was based on Price, Byers, & the Dating Violence Research Team (1999). Sexual health outcome 3 Rape attitude score: e included eight items (α = .91), for example, “I think a boy is allowed to force a girl into having intercourse when she has allowed him to take off her pants” (1 = totally disagree, 7 = totally agree) and was based on Maxwell, Robinson, and Post (2014). Sexual health outcome 4 Sexual expectant outcomes: The scale Outcome Expectancies (α = .89) was based on O’Donohue et al. (2003). The scale measured to what extent the participant would expect seven outcomes that could occur as a consequence of persuading a girlfriend who is not in the mood to have sex (e.g., I would enjoy, she would enjoy, I would feel guilty; 1 = no, definitely not, 7 = yes, absolutely). Sexual health outcome 5

		Attitudes towards communicating with a sexual partner score: attitudes toward communicating with a partner ("To ask my girlfriend what she does and does not want during sex, seems to me . . .") each measured by one statement with three semantic differentials (very bad, very good; very unimportant, very important; very uncomfortable, very comfortable). Sexual health outcome 6 Attitudes towards self-control score: attitudes toward self-control ("To only have sex with my girlfriend when she also wants it, seems to me . . .") each measured by one statement with three semantic differentials (very bad, very good; very unimportant, very important; very uncomfortable, very comfortable). Sexual health outcome 7 Self-efficacy towards communication: measured by a scale which included five items (α = .87), such as "I'm able to communicate with my sex partner about what we do and do not want regarding sex" (1 = no, absolutely not; 7 = yes, definitely) Sexual health outcome 8 Social norms about sexual conduct score: Social norms were measured with four items (α = .61), for example, "my friends believe it's okay to force a date into having sex when you spent a lot of money on her" (1 = no, absolutely not; 7 = yes, definitely). Sexual health outcome 9 Sexual behaviour (intention): intention was measured with three items (α = .78) and assessed to what extent subjects expect to become angry, start persuading, or start whining when they want to have sex but their girlfriend does not (1 = no, absolutely not; 7 = yes, definitely).
	Wait list control (N = 59) No prevention programme and residential care as usual	
	% Female	arm level baseline characteristics not reported
	Mean age (SD)	arm level baseline characteristics not reported
Risk of Bias	**1a. Bias arising from the randomisation process** Some concerns (Unclear method of randomisation, unclear if allocation concealment) **1b. Bias arising from the timing of identification and recruitment of individual participants in relation to timing of randomisation**	

	Low (Study states; There was no significant baseline difference on any of the 14 outcome measures (ps ≥ .21), suggesting successful randomization of institutions and participants across intervention and control conditions.) **2. Bias due to deviations from intended interventions (If your aim is to assess the effect of assignment to intervention, answer the following questions).** Some concerns (Study states: "The implementation of Make a Move appeared to be very challenging and needed to take into account several factors such as the interaction with and between the boys, time constraints, and the fact that the resources and facilities allocated were not always suitable (van Lieshout et al., in press). Differences between the trainers (styles, skills, motivation) are also likely to have played a role in the implementation of the program. Closely linked to adequate implementation (dose delivered) is the dose received by the target group; this also turned out to be very low, in large part because groups were unstable, with many boys missing meetings. Furthermore, issues such as the problematic backgrounds and social power struggles among some boys made it difficult for them to open up and actively participate in the group meetings." it is unclear how any such deviations may have differed between intervention groups.) **3. Bias due to missing outcome data** High ("many boys had problems concentrating long enough to answer the full questionnaire, and that some also had difficulties in fully comprehending the questions. Furthermore, the dropout rate in the intervention group was higher than in the (waiting list) control group". Overall, dropout was very high with >50% missing in either study arm by 6 months follow up.) **4. Bias in measurement of the outcome** Some concerns (No blinding procedures described, and outcomes were self-report/subjective. However, these measures appear to be validated) **5. Bias in selection of the reported result** Low

	Overall bias and Directness High **Overall Directness** Indirectly applicable (Netherlands-based study)

Qualitative evidence

Alderson 2019

Study Characteristics

Study type	Focus Groups Semi structured interviews RQ3 Evaluation of an intervention Supporting Looked After Children and Care Leavers In Decreasing Drugs, and Alcohol - RCT currently underway: Motivational Enhancement Therapy (MET) and Social Behaviour and Network Therapy (SBNT)
Aim of study	Authors aimed to establish whether the Motivational Enhancement Therapy (MET) and Social Behaviour and Network Therapy (SBNT) interventions were feasible and acceptable to adapt in relation to looked after children and other key stakeholders.
Study location	UK

Study setting	looked after children taking part in a randomised controlled trial of a behavioural change intervention to reduce risky substance use (drug and alcohol)
Study methods	Authors proposed to carry out individual 1:1 interviews with looked after children and carers and focus groups with professional participants. In reality, for pragmatic reasons we conducted a combination of individual interviews, dyad interviews and focus groups depending on participant's availability. Interviews were carried out by experienced qualitative researchers, they were audio recorded and transcribed verbatim. Transcripts were anonymised and identifiable participant details with a participant key were stored separately. Transcripts were thematically analysed, this entailed a line by line coding process and then analysis within a given transcripts and across the dataset as a whole. Analysis was an iterative process, using the constant comparative method [21], in order to identify key themes and concepts. Qualitative software (NVIVO 10) ws used to organise thematic codes. The data were compared across the three participant groups (i.e. LAC, professionals and carers) with similarities and differences being highlighted.
Population	Looked-after children who have experienced receiving drug and alcohol treatment interventions and/or LAC accessing other services for support surrounding 'help seeking' behaviour.
Study dates	March 2016 to February 2018
Sources of funding	Newcastle University
Inclusion Criteria	Age 12 to 20 years Health risks screened positive for being at risk of substance use
Exclusion criteria	None reported

Sample characteristics	Sample size 19 looked after children, 17 carers, 8 drug and alcohol workers, 8 social workers Reason for stopping recruitment not reported Type of care 5 in foster care, 8 in residential care, 5 in independent or supported living, 1 living with biological parents Other recruitment considerations The purposive sample aimed to ensure diversity with regards to age, exposure to drug and alcohol use and placement type. Substance abuse 16 with current or previous substance, 3 never used substances
Relevant themes	Theme 1 Trust and genuine care: The qualities of trust and genuine care were the two main sub- themes that emerged regarding what underpinned a successful therapeutic relationship. Participants, inclusive of professionals and LAC themselves highlighted the importance of building a therapeutic relationship when working to reduce substance misuse. Theme 2 Need to earn trust to gain confidence: The LAC's ability to confide in professionals and trust the substance misuse practitioner was a recurrent theme. Whilst trust is recognised as a necessary condition for any caring relationship, it was reported to be particularly important for LAC, whose experiences leading up to their placement in care may have impacted upon their ability to trust others. Professionals acknowledged that LAC often experience disorganised and difficult attachment. This included repeated experiences of their essential needs going unmet, relationship breakdown and abandonment, being let down and broken promises. Professionals displayed a clear understanding of these complex attachment issues and discussed the need to 'earn' trust when engaging with LAC: "You need to put in the groundwork initially. I think with teenagers you need to gain their trust, you need to work for it. Because if they have been hurt, which they will have been, they will try to push you away. They won't want to trust you." (Carly, Social worker, focus group) Theme 3 Availability: Practitioners were expected to act in particular ways in order to demonstrate their trustworthiness. Typically this involved the practitioner being reliable; a quality which practitioners reported could be communicated to the LAC in multiple ways within the interaction. One foster carer describes displaying their reliability in terms of being available 24/7, he is permanently 'on call' if a young person needs him, he states: "it is not a job because there is no job that makes you work 24 hours a day, 7 days a week and 365 days of the year, but this one does" (James, Foster carer, focus group). Theme 4 Reliability: Professional and LAC participants reported that the practitioner's reliability must be consistent as any inconsistency is likely to build mistrust. "Just by keeping to your word, even little things like keeping your appointments and attending on time, looking into things when you say you're going to…" (Susan, Social Worker, focus group). Theme 5 Time for building rapport: From the perspective of LAC, engaging with services depends fundamentally on the relationship between themselves and their allocated worker. To facilitate the sense of a reciprocal trustworthy relationship, young people explained the importance of 'working gradually', wherein at least the first couple of interactions should be

	dedicated to building a rapport and 'engaging' the young person prior to formal sessions commencing. Additionally, this could be shown by professionals not expecting young people to instantly make disclosures, but allowing a positive working relationship to develop first. Self-disclosures where practitioners 'trade' personal information were perceived to be beneficial to developing a trusting relationship, whereby the process of sharing information was not completely one sided. Some, examples that young people provided for this were discussing a hobby that the practitioner enjoyed doing or talking about a pet they had. This level of disclosure enable a small 'trade' of personal information to be made without divulging any sensitive personal information. LAC reported that such disclosure enhanced their sense of connection to the practitioner as well as their own safety to disclose information. "When you work with someone you have to build a bond up first, before you can open up to them…..It's, well the way I've done is just ask questions about them, and then if they tell you, then you know well if they've told me this then I can tell them that" (Sophie,17, YP interview). Theme 6 Genuine not contractual care: A further quality that LAC sought but did not always feel that they received was that of 'genuine care'. LAC described having multiple contacts with professionals, with much of the care a child usually receives from a loving family being provided by a professional who is employed to provide such care. The corporate parenting role dictates that safeguarding and risk management take precedent over the provision of emotional support. However, many social workers described going 'above and beyond' their role and being available outside of their contracted working hours in an attempt to show they care for the young people in their care. "Myself and his YOT worker had agreed between us that we would have our phones on 24/7. So that if he wanted to get in touch and check in we knew he was okay. So we did, we took turns and he did check in and he did arrange to meet up which was really good" (Steph, Social worker, focus group) Theme 7 Importance of genuine care (2): LAC were acutely aware of the corporate parenting role fulfilled by the professionals and highlighted the importance of practitioners (professionals and foster carers) whom made them feel like they 'genuinely' cared about their welfare. Despite being in a paid position to provide care for young people, foster carers reinforced their attempts to provide the same level of care and support to the children and young people they foster/care for in the same way they would treat their own biological children. "Any child that comes to live with me, I know they are not mine, however I will work with them, I will play with them, I will live with them and I will do everything to my best ability in every area, in every arena because I want what is best for them." (Liz, foster carer, interview). Theme 8 Genuine care and availability (3): For LAC, Genuine care involves professionals 'being available' when needed, showing empathy, perseverance and providing support (emotional and practical) which feels unconditional. For the young people, genuine care was described as stemming from personal investment rather than a professional obligation or remuneration. "Like Josie talks to me, not like I'm just someone she has to work with, she talks to me like she cares" (Carla, 17, YP interview) Theme 9 Sensitive and non-judgmental response: From the perspective of LAC, a further way of professionals showing that they cared for a young person was to take a non-judgemental approach and to show unconditional positive regard to the young people under their care regardless of the information they were disclosing. This was reinforced by professionals and foster carers, whom reported LAC disclosing information to them regarding historical experiences. Foster carers described having to respond in a sensitive and non-judgemental way. "We had a young man who had been abused by a family member. He was feeling guilty himself about it and thought that we would feel disgusted that things like that had been done. It is letting him see that we are not disgusted. Straight away, I have heard all of this before, you are not the only one. It is not your fault." (Carol, female, foster carer, focus group). "…my family is 'f…. up'…really 'f….. up'. And if I sat there and told someone they'd probably run a mile, they probably would. So that's why I've never really opened up to anyone, cause if I did they probably would run away, do you know what I mean?" (Ewan, 17, YP interview) Theme 10 Traditional one-to-one counselling style interactions are often unproductive for LACYP: Typically this was experienced as overly formal for LAC who might find this type of interaction difficult to engage with. Young people commented on how they found it harder to participate in 'traditional' formally structured sessions. "It was like in a room…and like there's a table there and it had like little seats round, and like, he was just on about things. Do you know, he didn't make it very good, like, he didn't make it very fun and enjoyable kind of thing. It was just like, boring. He was just writing things down that I was saying basically and it just upset me. He just kept on going over it and over it and over it, he was like "so how did that feel? Bla bla bla." I didn't really feel comfortable" (Isabelle, 13, YP interview)

	Theme 11 Need for therapeutic practitioners to work creatively and use visual strategies. The ability for practitioners to work creatively and use visual strategies such as the 'node-link mapping' used in the International Treatment Effectiveness Project (ITEP) and mood cards whilst staying true to the intervention delivery was deemed a successful strategy to engage LAC. "That are notmany young people who you'll get to the point where you're doing that one to one counselling really. It is few and far between. You're being creative…" (Adam, drug and alcohol worker, focus group). Many LAC wanted other strategies and approaches to be used to help them connect with professionals, maintain concentration and become more involved in sessions. "Writing it down or doing it like arts and crafts way because I don't like just talking and having conversations cause I just get a bit bored and lose track, then I'll start fiddling about." (Abbie, 18, YP interview) Theme 12 Explicit upfront acknowledgement of the complexities of life in the care system when addressing drug and alcohol addiction: A further approach deemed necessary when working with LAC was to explicitly acknowledge the complexities of their life due to them being in the care system. This enables a holistic approach to be taken within sessions. LAC identified it was important that goals did not focus solely around substance use. They valued discussions that recognised the difficulties occurring within their lives and facilitated a personalised approach to be taken to meet their needs. Professionals also clearly identified that a bespoke approach has to be taken; "I think what's coming out here is that with the kids we work with, the drug and alcohol issue is over there, if you like, and a whole raft of other issues are here. As workers we're dealing with all of these here and that tends to sort the drug and alcohol issues out quite naturally" (Laura, Drug and alcohol worker, focus group) Theme 13 Frequent placement changes resulting in inconsistent and fragmented support networks: Frequent placement changes resulted in inconsistent and fragmented support networks for LAC. The transient nature of the LAC population can result in young people being eager to find friends even if that results in becoming involved in unhealthy friendships. "So they might, you know, have contact with their brothers or sisters, you know, it is just they get moved around, and when they are moved around they are vulnerable, they are desperate to have friends or they are desperate to have somebody to call their own…… people get attracted to them who are, I would say, not the type of kids I would want my kids to knock around with" (Liz, foster carer, Interview). Theme 14 Gaps in the social network: the central part that social interaction and support for change plays in any resolution of substance misuse problems. "It is quite sad sometimes when they haven't got anybody in the family, not even an uncle or a cousin or somebody who they can put down as a support really" (Steph, social worker, focus group). The challenges of finding appropriate network members was explored, in many interviews LAC struggled to identify someone they felt they could turn to, feelings of not having support or the need to be self-sufficient was verbalised; "My boyfriend and his friends, and there's a few of my friends. Actually they've got their own lives as well, they've got their own houses and their partners and they're all settling down as well, so… there's not really many people there. When you think about it though, how many of them can you turn to if you've got a problem? Cause there's not a lot" (Abbie, 18, YP interview). Theme 15 Unconventional social support networks: When young people did identify positive support, it was often people outside of the traditional family support network as would be expected within the LAC population. This in itself could be challenging due to the identified sources of support often being professionals whose ability to provide ongoing or out of hours support is not always practical as would be possible from a more traditional family member. "There's two main people I've got in my life which provides me with support. One's my boss, he's a farm manager, I work with him most days. Another person is the manager of [name of school], he owns the company and he helps quite a lot by, when I moved out of here the first time, he's the one that made me come back, and let me get my head back" (Philip, 17, YP interview). Theme 16 Looked after children's inability, at times, to recognize support Theme 17

	In interventions the need to include criteria for a 'network member' was made more flexible to enable less traditional members to engage with sessions and act as a support Theme 18 That in interventions for substance abuse there is a need for treatment goals to be wider than substance use alone

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes *("The purposive sample aimed to ensure diversity with regards to age, exposure to drug and alcohol use and placement type. The final sample was representative of the LAC population so far as there was an equal mix of male and female participants and a range of placement types across the different local authority areas" However, the was no discussion regarding why/if some people chose not to take part.)*
Data collection	Was the data collected in a way that addressed the research issue?	Yes *(However, researchers did not justify the setting for data collection. data saturation was considered.)*

Section	Question	Answer
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell *(Cant tell if the researchers critically examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location)*
Ethical Issues	Have ethical issues been taken into consideration?	Yes *(ethical approval obtained)*
Data analysis	Was the data analysis sufficiently rigorous?	Yes *(However, unclear if researcher critically examine their own role, potential bias and influence during analysis and selection of data for presentation)*
Findings	Is there a clear statement of findings?	Yes
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and directness	Overall risk of bias	Low
	Directness	Directly applicable

Aventin 2014

Study Characteristics

Study type	Semi structured interviews RQ3
Aim of study	to determine the acceptability and potential therapeutic value of a computer game based intervention for youth in residential care
Study location	UK
Study setting	Residential care
Study methods	Semi-structured interviews with staff and young people in three children's homes in social care trust areas in Northern Ireland. After the implementation sessions, the RSWs and young people in the long-term homes were invited to participate in a semi-structured interview regarding their views on the strengths and weaknesses of the intervention, experiences using it, perceptions of its therapeutic value, and barriers and facilitators of successful implementation (i.e. fidelity to implementation protocol). Interviews with them were tape-recorded and subjected to a thematic content analysis using an abbreviated version of grounded theory (Glaser & Strauss, 1967) to code, categorise and organise the data into themes and overarching themes. The findings across data sources were compared to determine overall perceptions of the acceptability of the intervention.
Population	All staff and young people in the three homes
Study dates	Not reported
Sources of funding	UK Economic and Social Research Council and the Southern Health and Social Care Trust Northern Ireland
Inclusion Criteria	Care Situation In residential care Delivering an intervention Residential Socia Workers

Exclusion criteria	None reported
Sample characteristics	Sample size 11 Residential Social Workers, 11 youth in residential care
Relevant themes	Theme 1 Acceptable but "not like therapy" - Although one young person said that he “hated” the game (Youth 3), the remainder of staff and young people at Long-term I who used the intervention expressed positive views regarding its acceptability, noting only minor dissatisfaction with issues such as the length of time needed for preparation. At Long-term I, the intervention as a whole was viewed as: “good” (Youth 1) “really good” (Youth 2); “something different”, “interesting” (RSW 1); and “fun” (RSW 3). One RSW suggested that one of its major strengths was that it did not appear overtly therapeutic. "[…] that's a strength of the work too in that the young person wouldn't see it as therapy and theworker wouldn't see it as therapy either. You know sitting down on the sofa and it's not formal at all you know. (RSW1)" Theme 2 Not suitable for those who are recently feeling unsettled or those with learning disabilities - Shortly after implementation had begun, the Team Leader of the Intensive Support Unit withdrew participation stating that she felt it was not an appropriate time to continue with the study due to an unsettled period relating to a change of young people in the home. She also stated that the intervention was not suitable for the young people who had learning disabilities, with the two RSWs who engaged in one session with these young people saying that the youth had difficulties operating the controls or focusing on the goals of the game. Theme 3 Lack of effectiveness of the skills training portion - At Long-term II, the participating staff indicated dissatisfaction with the skill coaching component, a perceived lack of fit with the adolescents' needs, and the general lack of motivation to engage on the part of adolescents. The RSW who took part in a post-intervention interview said that while he thought the intervention was novel, he did not find it appropriate for use at the home because he felt the game was not street-wise enough for ‘high risk’ adolescents and more suitable for younger children. Additionally, he did not consider it to be consistent with the participating young person's (Youth 4) needs: "I identified some concerns about [Youth 4] and his participation before [implementation] and thought that it wouldn't be right for [his] particular needs. Em, some aspects of that were wrong and some were right. [Youth 4] did engage with it for a prolonged period, but completely at his own determination. He would only do it on his own and wouldn't engage in the dialogue that would be associated with a sort of more therapeutic response. (RSW 4)" Theme 4 Variability of individual engagement - Some RSWs at Long-term II felt that the characteristics of the individual adolescents would impact on their engagement. During the training many stated that they did not think their young person would engage easily due to a lack of motivation, lack of interest in computer games or because they would simply not commit to any kind of therapeutic work. They indicated that, even if they did engage, it would not be for an extended period. One RSW said “commitment is an issue for these young people” (RSW5). Theme 5 Engagement only with playing the video game - For the adolescents at Long-term I, the game was the intervention and none of them seemed to attach much significance to the social worker's presence or attempts at skill coaching. Two of the three young people expressed generally positive attitudes and said they had found the game educational. "R: Would there be anything you'd change about the game or if you could create your own game or that kind of thing would there be anything that you would change or add in to it? Youth 2:No I thought itwas all reallywell put together. I'd use it like. R: Would you? Okay. Could you, 'cause I know you play computer games, would there be any other computer games that you would suggest that would be useful in that same kind of way? Youth 2: I don't think there's any for that kind of idea at the minute that's actually out. A lot of the ones that are out are like violent and shooting and things like that, which a lot of young people are into and I think we need to change that. I think there needs to be more computer games out which are more interactive for young people rather than just crime and sex and things like that there. I think that should all change like. I think there should be more educational

	games out. At Long-termII, one young person (Youth 4) said that hewould play the game again and would recommend it to other adolescents: R: So overall what did you think of it? Youth 4: It was good. R. It was good? What did you like about it? Youth 4: The way you could do different things, around the house and that. R: Em, anything you didn't like about it? Youth 4: No. [pause 2 secs]. I actually don't. It was good." Theme 6 Difficulty trying to encorporate the skills component - Unlike the staff and young people at Long-term I, neither the RSW nor youth at Long-term II found the skill coaching acceptable. RSW 4 said he had to withdraw attempts at communicating with Youth 4 when he became angry: "R: In terms of that first session whenever you tried to incorporate the skills coaching can you just tellme how that worked, or didn't work? RSW4: It didn't work because other than explaining what the game was about and getting frustrated with me…You have to be very subtle with [Youth 4] in terms of how you show an interest. What I was trying to do was sort of, obviously physically get alongside him and ask him to explain the game to me. He very quickly got cheesed off with my questions and got angry with my questions and 'f-ed' me off andwouldn't engage further. Em, and refused thereafter to speak to me while he was playing the game. Youth 4 expressed a similar view, suggesting that it was "annoying" to have "someone looking over [his] shoulder" and asking "stupid questions". However, The skill coaching component was deemed acceptable by all staff and young people at Long-term I. One of the pairs (RSW 1 and Youth 2) said they were both comfortable sitting down together and RSW 1 said there was "nothing" hewould change about this aspect of the intervention because it was something they would do together quite often. Youth 2 said RSW 1's presence kept his "mind focused" while Youth 3 indicated satisfaction with his key-workers presence by saying it was a "sound auld job". One RSW thought skill coaching was very much in line with his usual way of working: "Well as a residential social worker you're constantly working with the young people to get them to sit down in the first place and, you know, to spend time with you. Em, I suppose just direct work skills. (RSW 1) Another of the young people liked the RSW being there because of the technical support he could offer: R: You said you enjoyed the game. What about the fact that [RSW1] was sitting down beside you doing itwith you.What did you think of that? Youth 1: Yeah itwas good because staff use computers so they know what they are doing. R: Uh-huh. Did you ever feel like aww, you know, "I'd just love to be playing by myself"? Youth 1: No." Theme 7 Other potential uses of the game - diversion and shared activity - An unexpected finding was that, in the long-term units, participants saw the value of the game beyond coaching emotion regulation skills. More specifically, staff saw it as a tool for engaging in one-to-one work with a variety of different goals linked to their perceptions of the current needs of the adolescents and the core function of the units: preparation for life after care through independent living skill coaching and diversion from risk-taking behaviour. Although intended to be used for coaching emotion regulation skills, none of the participants at Long-term I saw this as the game's primary use. Rather, adolescents considered it an enjoyable way of passing the time, a means of spending quality, one-to-one time with their key-worker and (given the 'practical' everyday life tasks involved in the game) as a valuable tool for learning independent living skills. RSWs talked about the intervention as a fun-based, engaging tool for getting to know adolescents; identifying deficits in emotion regulation skills; discussing 'real life' difficulties in a less threatening way; spending quality time with the young person; and engaging them more generally in therapeutic work. One RSW thought that it offered a different tool for engaging in one-to-one work the young person: "[Youth 1]would generally enjoy the one-to-one attention from staff, so you know, it provided an opportunity to do one-to-onewith, you know, something different, you know, than the usual one-to-one work. (RSW 1) Youth 1 appreciated the intervention as an enjoyable activity for passing the time: R: Em. What did you like most about it? Youth 1: The game just. It gave me something to do. R: It gave you something to do of an evening type of thing. Is that what you mean? Youth 1: Yeah. R: What would you normally be doing if you weren't playing the game? Youth 1: Sitting around probably. Youth 2 thought the intervention had value as an activity for one-to-one work, because it gave him the opportunity to spend quality time with his key-worker." One RSW thought that the gamewould be useful for getting to know her key-child who had just recently moved into the unit. Theme 8 Uses for diverting from risk-taking behaviour - At Long-term II, RSW 4 felt the game alone was a useful tool for diverting Youth 4 from risk-taking behaviour: "I mean he's a high risk taker, major high risk taker. He's one of the highest categorieswithin the Trust. There'd be a lot of concern about his behaviours and potential for misadventure or, you know, even disability or fatality in terms of his behaviours. So at least when he was engaging on a regular basis with the game and that did reduce his high risk behaviours." While, on the one hand, the RSW at Long-termII said that he did not think the interventionwas appropriate for older teenagers, he conceded on the other that the game was useful for diverting Youth 4 from risk taking behaviour and that it had served to help him modulate his anger: "When that game was being played in terms of, the SIMS game, he'd be very very focused on it and he was very calm. He wasn't agitated in any way when he was playing the game. Like Youth 1, Youth 4 saw the main value of the game as an enjoyable way of passing the time, although he agreed with his key-worker that it had reduced his risk-taking behaviour."

	Theme 9 Preparation for independent living? - Similarly, another felt it would be useful for teaching his key-child about independent living skills, as he was going to be leaving the unit within the next couple of months. A third RSWthought the game would be useful for learning about the young person's priorities and seeing how patient they were. The four adolescents who took part in post-intervention interviews had different perceptions of the value of the intervention. Unlike the RSWs at Long-term I, both Youth 1 and Youth 2 saw its primary use for getting them to think about independent living skills. Youth 2 felt it gave him insight into what life would be like when he was living independently: "It sort of gave me an insight to what I needed to actually do and whatever, whenever I go out into the world." Theme 10 Therapeutic impact was through improved relationships - While little therapeutic impact would be expected given the limited exposure to the intervention, and lack of fidelity to the implementation protocol, the RSWs noted its potential for engaging adolescents in therapeutic work and building relationships. Some of the participants felt the intervention had had an impact on the relationship between the social worker and the young person. For example, one RSW had noticed a change in relationship between youth and RSW: "R: Do you think the intervention had any impact on [Youth 1]? RSW 2: Yes. I think it was useful for his relationship building with RSW 1 who is his co-worker. I was actually surprised at how eager Youth 1 was to do it at times. Both Youth 2 and Youth 1 highlighted another unintended impact, namely increased knowledge of what independent living might be like: R: Okay. Em, do you think, because, you know you said earlier that the computer game was good at showing you everyday life, do you think it helped you in any way? Youth 1: Yeah. R: In what way? Youth 1: Like knowing what I'm gonna have to do if I'm goin' about on my own. Like going and buying groceries and paying bills and getting a job. (Youth 1)" Theme 11 Barriers - Lack of time, inappropriate timing, the volatility of the life space, and the changing needs of the adolescents emerged as core findings. Additionally, the characteristics of individual adolescents and RSWs were implicated as barriers to engagement, central amongst which was lack of interest and motivation to engage in therapeutic work. RSW 1 noted that Youth 2 had “a lot going on” in his life at the time of implementation and although they seized opportunities whenever possible, other priorities relating to the youth's imminentmove to independent living took precedence: "If I'm honest it wouldn't have been a huge priority. We would have played as much as we could but there was a lot going on for him the last six months. (RSW1)" The characteristics of RSWs themselveswere mentioned as potential barriers to successful implementation. In particular, RSW 1 noted the importance of whether or not the staff member had a preference for the practical aspects of their work rather than the therapeutic: "I suppose in general there would be staff here who would be into more therapeutic approaches than others and others would have a more practical outlook on residential so there might be some resistance to that." Additionally, however, RSW 1 indicated that implementation might conflict with the RSW's role of disciplinarian and parent figure. "You know you're living with the young person so in one way you're the person whose imposing sanctions and discipline, you're sort of a parental figure, so they mightn't be able to sit down and open up. (RSW 1)" At Long-term II, RSW4 also talked about the disjuncture between the focus and structure of the intervention and current ways of working with Youth 4: "[We have identified a] need for [Youth 4] to be more deferred in his approach [i.e. to work on deferred gratification]. […] This is what I have identified for [Youth 4] and then the team has signed up to that. But what we have said is we don't use formal sessions.We look for informal opportunities to meet that particular need so that's how we work. (RSW4)" Theme 12 Facilitators - RSW3 suggested that supervision, and the inclusion of the intervention as part of the work plan,were essential for successful implementation. She said the researcher's input had kept her focused on the task. "R: What about if it wasn't part of the research and I wasn't ringing asking how are you getting on and stuff. How do you think it would pan out in the end? RSW 3: Em. I think not a lot would go on. You'd need somebody that's gonna be checking up on you […] You could have it as part of your monthly feedback and you'd have to report that you did something. Because it's, you knowyourself, especially in [Long-term I]. You could be coming in and anything could happen. At Long-term I, RSW 1 said that successful implementation would depend on the characteristics of the individual young person and their relationship with the key-worker and indicated that the work that could be achieved depended to large degree on Youth 2's mood. At Long-term II, RSW 4 thought the overtly therapeutic focus of the intervention, plus past negative experiences with professionals, were barriers for Youth 4: "[Youth 4] is very different from a lot of kids. He's a real individual when it comes to it. He's very self-determined. He's very headstrong. He doesn't like authority. He doesn't like therapeutic approaches. I can sort of understand,maybe,where he's coming frombecause he's had therapy to it's coming out of his ears. (RSW4)"

Study arms

Computer game-based therapeutic intervention (N = 22)
The intervention comprised two core elements: (a) the young person playing a commercially available, leisure-oriented computer game (The SIMS Life Stories™) and (b) a residential social worker (RSW) delivering emotion regulation skill coaching to the adolescent during the course of the game. Often described as an ‘electronic dollhouse’ the SIMS game is everyday life simulation in which the player controls the avatars' general daily activities (including eating, sleeping, working, and socialising) and must meet game-specific goals in order to progress. The intervention was preceded by training for the RSWs, and accompanied by consultation with a clinical psychologist, technical support provided by the first author and a detailed user-manual (which included ‘visual aids’ for teaching young people about emotion regulation). The theory of change underpinning the intervention was that RSWs would use scenarios from the game to model and discuss the identification, modulation and expression of emotions with the young person, thereby engaging young people in the therapeutic process and increase their emotion regulation skills. Activities included in the skill coaching component were broadly based on the Attachment, Self-Regulation and Competency (ARC) model of intervention for complexly traumatized youth.

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes *(The study aimed to determine the acceptability of the intervention but also the therapeutic value (which may be better assessed using quantitative methods))*
Research Design	Was the research design appropriate to address the aims of the research?	Yes

Section	Question	Answer
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes *(However, no discussion regarding why some chose not to participate)*
Data collection	Was the data collected in a way that addressed the research issue?	No *(Setting for data collection not justified. Methods have not been made explicit for interviews. No discussion of saturation of data.)*
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	No *(No indication that the researcher critically examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location)*
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Can't tell *(No clear description of thematic analysis was provided. Unclear that researchers critically examine their own role, potential bias and influence during analysis and selection of data for presentation)*
Findings	Is there a clear statement of findings?	Can't tell *(No triagnulation, respondent validation, or the use of more than one analyst)*
Research value	How valuable is the research?	The research has some value *(Qualitative data with little additional empirical evidence of effectiveness (in this study or others))*

Section	Question	Answer
Overall risk of bias and directness	Overall risk of bias	High
	Directness	Directly applicable

Barron 2017

Study Characteristics

Study type	Focus Groups Interviews (unclear) RQ3 Evaluation of an intervention Group-Based Psychosocial Trauma Recovery Program
Aim of study	to assess experience of and views on future development of this intervention
Study location	UK (Scotland)
Study setting	A secure accommodation facility in Scotland.
Study methods	Interviews were held with adolescents 1 month post TRT to assess their subjective experience of the program. Adolescents (n = 10) were asked what they thought of TRT including: whether

	it was helpful and in what ways; which parts worked best; what was learned; what strategies were applied in real life; how likely is it that they will use the strategies in real life (on a zero to ten scale); if any negative consequences were experienced and what would improve TRT? Adolescent responses were recorded verbatim by the researcher and checked for accuracy by the program worker at the time of interview. Analysis involved a quasi-qualitative thematic analysis that utilizes identification of meaningful codes and themes from statements as well as the frequency counts of statements under each code. A quasi-qualitative analysis was chosen in order to not only identify participant meanings but also to get a measure of how often the meanings were reported by adolescents and potential measure of importance. The steps within the quasi-qualitative analysis were: familiarization of the whole data set for each question; the identification of statements into codes of meaning; rank ordering of codes; the analysis of codes into superordinate themes; a review of statements, codes and themes.
Population	Adolescents in a secure accommodation facility
Study dates	not reported
Sources of funding	Scottish Government Youth Justice Team
Inclusion Criteria	Care Situation adolescents in a secure accommodation facility in Scotland
Exclusion criteria	None reported

Sample characteristics	Sample size 10 adolescents, A focus group was held with the three presenters and the support services manager after TRT ended.
Relevant themes	Theme 1 What adolescents liked about the intervention: Relaxing (n = 7); All activities (n = 6); Safe place (n = 4); Drawing (n = 2); Tapping (n = 1) Smelling (n = 1) Bad picture to good picture (n = 1) Being in a group (n = 1) Talking about things (n = 1) Comparing feelings then and now (n = 1) Theme 2 What adolescents learned from the intervention: Talking about feelings (n = 2) How to cope (n = 2) If annoyed, breathe and think about something else (n = 2) How to deal with difficult images, to keep them in the past (n = 2) How to put thoughts to the side (n = 2) Hear different points of view (n = 1) Beneficial to talk/not talk about (n = 1) Theme 3 What adolescents found challenging in the intervention: Not like groups (n = 6) Breathing, drawing and safe place (n = 3) Visual imagery (n = 2) Other adolescents' behavior (n = 1) Theme 4 Future direction the adolescents felt the intervention could take: One to one TRT (n = 3) Individual work after group work (n = 1) More sessions (n = 1) Others need to open up more (n = 1) Not so much visualization (n = 1) Theme 5 What the workers liked about the intervention: Valuable contributions from adolescents (n = 27) Individual and group activities (n = 12) Imagery, graded exposure, fear thermometer, safe place, fun (n = 5) Emphasize purpose of the activity (n = 4) Visual materials to aid imagination (n = 4) Small groups & short sessions (n = 3) Theme 6 What the workers felt adolescents learned about through the intervention: Normalization through shared experience (n = 9); Increased sense of control (n = 8); Re-visit learning in units (n = 7); Better understanding of trauma and symptoms (n = 6); Symptoms reduced (n = 4); Range of tools to apply in life (n = 4) Theme 7 What the workers themselves learned about through the intervention: Extent of trauma (n = 10); Recognizing trauma events and symptoms including in reports (n = 9); Trauma lens report writing (n = 6); Trauma recovery strategies (n = 4); Helping agencies recognize trauma (n = 4); Revisiting learning for adolescents (n = 4); Cautious re asking about trauma (n = 3) Embed TRT into practice (n = 3); Trauma not recognized or met (n = 3); Change is not linear (n = 1) Theme 8 What the workers found challenging in delivering the intervention: Adolescent behavior (n = 17); Limited verbal contributions (n = 11); Liaison with care staff (n = 9); Uncertainty of adolescent response (n = 8); Need for follow-up to apply skills (n = 6); TRT delivery needed adapted (n = 5) Adolescents could respond to different activities on different days (n = 4) Theme 9 The future direction the workers felt the intervention could take: Liaising with care staff essential (n = 14); Encourage peer support (n = 10) Fun activites; visual aids and attractive workbook (n = 7) Selection and grouping important (n = 3) Shorter and more frequent sessions (n = 3)

Study arms

Group-Based Psychosocial Trauma Recovery Program (N = 10)
TRT is a trauma-specific program based on cognitive behavioral theory that focuses on normalizing the trauma response; teaching strategies for intrusive memories, hyper-arousal, and avoidance symptoms of PTSD as well as coping with loss. TRT was originally developed for adolescents who experienced disaster situations, such as earthquakes, and war trauma. Content includes: (i) case studies as exemplars for psychoeducation on traumatic events, normalizing resultant symptoms, and stimulating the sharing of traumatic events; (ii) relaxation techniques and positive cognitions to help with emotional dysregulation; (iii) brief exposure for trauma reminders; and (iv) systematic desensitization of anxiety and anger hierarchies for avoidance. Because of short concentration spans and social skill difficulties, adolescents received an adapted version of TRT. Sessions were shorter, 40 min on average, and delivered twice weekly over seven weeks, rather than weekly two hour sessions. Two program workers were present during delivery, one to present, the other to support. Presenters received a-three day training by an expert trainer from the Children and War Foundation covering program values, content and processes. Training methods mirrored program activities and included information giving, modeling, experiential learning, reflection, and feedback. TRT was delivered to the intervention group during school time and over three phases (May, October and February) with four, four and two adolescents in the intervention groups respectively. Presenters received group supervision by the principle researcher, following each phase of delivery. This involved affirming adherence to TRT protocols, making adaptations within theoretical guidance and being responsive to adolescents. All sessions were video recorded for fidelity analysis.

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	No
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes

Section	Question	Answer
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes *(Participants were all selected as they had received a particular intervention)*
Data collection	Was the data collected in a way that addressed the research issue?	Yes *(however no discussion of data saturation)*
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell *(No indication that the researcher critically examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location)*
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Can't tell *(Unclear if sufficient data to support findings; no indepth discussion of ow the categories/themes were derived from the data; unclear if the researcher the researcher critically examine their own role, potential bias and influence during analysis and selection of data for presentation)*
Findings	Is there a clear statement of findings?	Can't tell *(unclear that more than one worker was involved with coding and interpretation of*

Section	Question	Answer
		qualitative findings. No respondent validation. Inadequate evidence for and against researchers arguments (small sample size and few participants contributed to each theme).)
Research value	How valuable is the research?	The research has some value *(UK based study, however is limited by relevance to one intervention and a very specific setting.)*
Overall risk of bias and directness	Overall risk of bias	Moderate
	Directness	Directly applicable

Castellanos-Brown 2010

Study Characteristics

Study type	Semi structured interviews RQ5.1
Aim of study	The key questions of the study were: (a) What is the process of a youth's transition to a family setting? (b) How do TFC parents assess a youth's appropriateness for placement in their home? and (c) What factors are important as youth settle into a family setting?
Study location	USA, Baltimore

Study setting	The Woodbourne Center in Baltimore: a private social service agency serving youth from several public systems, including child welfare, mental health, and juvenile justice.
Study methods	Semi-structured interviews. Authors followed an interview guide and revised it as needed to meet the study goals. The interview guide included several open-ended questions about the transition process; probes were used during the interviews to elicit more detailed information. Each interview lasted between 21 and 53 minutes (M = 32 minutes). All interviews were digitally audio recorded. Content analysis of transcripts from digital recordings was used to identify themes in participants' interviews. Coders initially read through the transcripts multiple times to identify consistent themes raised by participants. Coders then met to compare and discuss these themes and create a codebook.
Population	treatment foster parents who had experienced a youth transitioning from a group setting
Study dates	Not reported
Sources of funding	the Christopher O'Neil Foundation
Inclusion Criteria	Delivering an intervention Adults who were current or former TFC parents with Woodbourne Center in Baltimore
Exclusion criteria	None reported
Sample characteristics	Sample size 22 treatment foster care parents Age between 50 and 69 years of age Ethnicity Most of the participants (95%) were Black and the majority (55.6%) Carer characteristics

	The TFC parents had diverse levels of experience in fostering, ranging from fostering for less than 1 year to 20 years (M = 6.5 years), and more than half of respondents had fostered four or more children
Relevant themes	Theme 1 Getting aquainted - vists to ensure suitability - For many of the TFC parents, the youth being considered for TFC were placed at the agency's diagnostic center. This allowed the TFC parents to visit the youth and often take the youth on a day pass or even a trial overnight visit. These opportunities to become acquainted and begin building a relationship were often valued by TFC parents. One TFC parent said, "I think it's important to have a day visit and a weekend visit before you make your final decision." Another TFC parent said that she knew from the visit that the placement would be successful: "He came right in and blended right in with the family. It was like he was part of the family and I liked that." The visits were helpful not just to assess the match between the youth and foster parents, but also to observe other family dynamics the youth would be joining. "When I do that one visit, I have my daughter around; she's very involved. She's in and out of here all the time. So if I'm going to have a [youth] visit, I make sure that she and her family will be here to see how they connect." Some TFC parents had to consider how a new foster youth would adjust with other youth in the home. As 1 TFC parent recounted, "Me and another foster child that I had, the three of us went on an outing and I just wanted to get a general idea about their relationship….That's important, too, to include the other child if you have more than one child in the home." Incorporating the foster youth into the family was mentioned by various TFC parents as being an important consideration when deciding whether to accept a youth into their care. Theme 2 Getting aquainted - feeling rushed to make a decision/timing - Timing. The time that elapsed between first hearing about a child and the start of placement varied from a few hours to a few weeks. Although not specifically asked about, one theme that emerged was that some TFC parents expressed feeling rushed by the transition process of a youth being placed in their home. For example, 1 TFC parent described, "Man, it was quick. It was very quick because his time at the diagnostic center was almost up, so they kind of moved kind of quickly on the process because he didn't have no place to go. He was going to leave [the short-term center] and end up at a group home or some place like that." There seemed to be a push/pull between child welfare policies that emphasize youth living in family settings and the desire for TFC parents to feel adequately informed and prepared to receive the child. One TFC parent recounted a recent example: "We got a call that day, they wanted them placed that day, which we know is the nature of the beast. So you are trying to make a decision really quick and you are trying to ask questions and you are asking a team of people who may not know the information. I'm asking questions, I've got to call my husband, transfer all that, write all that down, and even talk to our kids here because it's a team here." TFC parents recognize the pressures within the system even when there is some lead time for placements. One TFC parent said, "The agencies do the best that they can, but there's only so much they can do.…The way they are set up, you can only have so many visits and you have to make a decision—am I gonna take the child or not? Because they have to get these children into a home. That's the thing, they have to try to get them in a normal home environment." It was interesting to note that there was not a clear relationship between the amount of time involved in the transition and the experience of feeling rushed. Some TFC parents who received youth within hours of first being notified about the youth did not express any concerns about the timing, while other TFC parents who had a week or more to weigh the decision mentioned that the process seemed "real quick." This finding suggests that TFC parents differ on the amount of time they feel is needed to prepare for the transition. Theme 3 Getting aquainted - information gathering - TFC parents used a variety of methods to gather information for making a decision about whether or not to accept a youth into their home. Some TFC parents reported asking the caseworker many questions about the youth or reading the youth's records, in addition to meeting and visiting. One TFC parent described the importance of reviewing youth records. "Oh, when I look at the chart. To me, the chart is everything…I don't accept [a child] without the chart because I don't want to be surprised." Another respondent emphasized the importance of asking questions: "I ask questions if I don't get enough information. I want to know more extensively about the child's behavior. That way that will give me a general idea as to know whether I want to parent that child or if I'm competent enough to parent that child." Other respondents seemed to require little information to make the decision to accept a youth. Rather than querying the placement worker and files, 1 TFC parent explained, "I just work with what I have. Because there's no way you can tell that by looking at a person or meeting them the first time and I don't think that's giving a person a real chance. Just to meet them and not really…you know, it takes time to get to know a person and they unfold themselves like an onion." TFC parents also recognized the pitfalls of overreliance on a youth's records or previous history. "I try not to judge the child by the info they give you. Sometimes they just need a chance….You just have to let them come in and give them a chance and find out for yourself. Is this child really all that's written on paper?" One TFC parent explained, "I know they all [are] going to have some type of problem and I know that when you love children and work with them, it takes a while, but they can change." When TFC parents were asked what types of information they wanted about a youth they were considering accepting into their home, they mentioned characteristics related to the youth's behaviors, their background, and family experiences. Certain problem behaviors were frequently mentioned as important factors in assessing

	their willingness to foster a youth. Several TFC parents specifically mentioned they wanted to know whether the child had been a "firesetter," was "violent," and if they acted out sexually. Other less commonly reported issues that were mentioned as important to consider included being pregnant, lying, stealing, running away, and anger management issues. At times, TFC parents reported not receiving information they wanted about the youth. For example, 1 TFC parent reported learning that a child had a bedwetting problem that was not disclosed prior to placement. Another TFC parent said of a youth with attention deficit issues: "I didn't know that he had it or anything about it." Other types of information not received were explanations of why previous placements had disrupted or a youth's involvement in sexual activities. TFC parents had different explanations for why information they wanted was not received. In some situations, the information may not have been available in a youth's record or may not have ever been reported previously. For example, 1 respondent said, "A lot of things were not in her chart and I don't think [the agency] knew. She played with fire, she's having sex. That was not in her chart." Some TFC parents blamed the state child welfare system for not sharing the youth's records with the agency providing the placement services. Explained 1 TFC parent, "A lot of information, if [the state child welfare system] doesn't disclose to [the placement agency] right away, then we don't know about it." Other TFC parents suspected that the placement social worker purposely withheld information from them because they wanted the child placed. "I feel like most times, it's a 'don't ask, don't tell' situation." One TFC parent said, "It seems like they just kinda gave me fluff stuff." Another said, "I can understand, too, because sometimes they may want to place a child in an emergency and they don't want to disclose certain information because you look at this so-called innocent child and you want this child placed, but that's not the right way to do things." One TFC parent summarized the combination of factors that leads to an information gap: "Some percentage is that they don't have it; another percentage is that they don't want to share it; and another might be, what, I don't know, who knows." **Theme 4** Getting settled - clothing and personal items - TFC parents seemed prepared to provide personal care items for youth as needed, but often found that youth also needed new clothes. TFC parents said such things as, "And what she came with was like rags," "Underwear too small, pants raggedy," and "They usually have about 2 or 3 pair of underwear that's too small, the socks are really dirty if they have matching pairs, which is almost never. They have no hair supplies, no bath stuff. They usually don't have no haircut, no adequate shoes, no kind of toiletries. One child, she didn't have no jacket." Suggestions for improving the adequacy of clothing included receiving a clothing grant when a child is placed (N = 5). Several TFC parents commented on how they took ownership of their youth's appearance. For instance, 1 TFC parent said, "I'm really particular about what they wear and how they look. I took all the stuff she had and threw it in the trash pretty much because you are a representation of me….So if they come and their clothes are not adequate with me, then I don't let them wear that stuff." Providing for the youth's clothing needs seemed to make an impression on the youth. For example, 1 respondent said, "The child was wearing small clothes and nobody could see it but me. So I went out to Marshalls and I spent $300. I'll never forget that. That night, before he went to school, I bought him all new clothes and automatically, that child loved me." However, TFC parents were sometimes reluctant to invest so substantially in a youth newly-placed in their home. For example, 1 respondent said, "That was very unfair to me. I didn't think it was fair because what happens if this child doesn't work out well in my home….I had to go out and buy him an entire wardrobe—from inside to outside and a haircut. But everything turned out okay." **Theme 5** Getting settled - school transitions - Some TFC parents reported issues transitioning youth from their previous school to their new school. To illustrate, a TFC parent said, "It took me almost a month to get her registered in school." Another mentioned, it "seems like [the agency] should have gotten all that and passed that package with the child, but it seems like [the agency] and the city couldn't get their handshake together, so that was the hang-up there." Others reported no problems in that transition. For example, 1 respondent said, "It was pretty smooth. They didn't miss any school at all." **Theme 6** Getting settled - mental health services transitions - In this TFC program, all youth were expected to receive weekly outpatient therapy. Transitioning youth to new mental health providers was made easier for most TFC parents because this agency's workers provide referrals to providers near the TFC home. The TFC parents also appreciated being able to choose the therapist they wanted to work with. Medical and dental services seemed equally straightforward. A TFC parent could have their caseworker transfer a youth's files to a provider of the parent's choice or the caseworker would help identify possible local providers. For example, 1 respondent said, "He had to go to a different therapist. I looked around in the neighborhood to find something that was close. So we go to [community mental health] center. As soon as he got here to the house, he started going to therapy." TFC parents reported few difficulties in logistics regarding securing services for youth in their home. TFC parents who were less experienced reported greater reliance on their caseworkers for help in navigating the process of getting settled, whereas more senior TFC parents knew the ropes well. For instance, 1 TFC parent said, "Usually we transfer them. Like I transfer all my kids to where I usually take all my kids. It's the same therapist. We know each other and we have a good rapport." Overall, TFC parents seemed satisfied with the quality of auxiliary services their youth received.

	Theme 7 Getting settled - agency support - The strengths of the program identified by TFC parents may have facilitated the getting acquainted stage of the transition process. These strengths highlighted various supports that were mentioned as being helpful to TFC parents. Eight TFC parents mentioned they had a good relationship with their TFC worker. Examples include, “I have an excellent worker, the intake lady was excellent,” and “Lately, I’ve been having some really great social workers.” Training was mentioned by 5 TFC parents as being a beneficial source of support. Respite was mentioned twice and referrals were mentioned by 1 TFC parent. Additionally, 2 TFC parents said the agency was “supportive.” For example, 1 TFC parent said they do a “good job in communication and in supporting the parents. I know they are constantly trying to develop more support for the foster parents to help them when they got children that is getting into some problems and they do have some things that they can work with.” Six mentioned the staff, counselors, or social workers at this agency were strengths. Theme 8 Getting adjusted - adjustments to family life - Youth transitioning from group care settings are adjusting not only to their foster family, but also sometimes to family life in general. Some youth seemed to lack experiences that are common in most families. For example, 1 TFC parent recalled having a youth in her home who admitted never before having a set bedtime. Another TFC parent was surprised by a youth’s dietary habits. “One girl I had, she was eating out of a can. I told her you’re not supposed to eat out of a can and she got so ashamed.” A TFC mother described her efforts to treat her foster youth similarly to how she treated her biological children as a “mainstreaming” process: “If he stays on task and graduates and makes me proud of him, I will give him a party in the backyard….See, I did that for my kids, so it’s like mainstreaming him.” Theme 9 Getting adjusted - disruptions - When youth coming from group care or other settings transition to TFC, struggles in the transition can lead to placement disruptions. In this sample, more than half of the respondents had experienced at least one disruption of a child leaving their home. Reasons cited for disruptions included lying, running away, skipping school, stealing, and sexual behaviors. From the descriptions provided by TFC parents, disruptions often occurred after an increasing build-up of problems over time. For example, “She was constantly being thrown out of school, so that was a constant. School started in August and by September she had been thrown out of school like 6 times. And I told her I couldn’t keep going to the school like that…I have to work, too…so they found her another placement.” As youth problems escalated or maintained at high levels of intensity, TFC parents seemed to reach a breaking point. One respondent said, “She steals everything that isn’t nailed down and after a while I just got sick of it. Having to go get something or going to wear something and it not be there anymore. I just couldn’t tolerate it anymore.” For some TFC parents the persistence of difficult youth behaviors was too much for them to handle. Theme 10 Getting adjusted - evidence of postive transition - Although not specifically asked about, many TFC parents shared evidence of a positive transition for youth they fostered, and they were proud and happy to share their success stories. One TFC parent said, “She graduated and she’s going to school…she was able to get an apartment, she shared it with another young lady for the first year and now she has her own place through a program. She’s working and going to college. She’s one of my successes, a success story.” Another TFC parent said about a former youth in her care, “She’s doing quite well and they also gave her a voucher to get her driver’s permit. She’s doing well and that’s what I would like to see all the children attain.” A third said, “I just want that child to be successful so that child can say someone loved me enough to help me to be successful, so that’s really my goal. Two of my children have done just that—graduated.”

Study arms

Treatment Foster Care (N = 22) Woodbourne’s TFC program does not follow a national model such as MTFC, which combines foster parent training with youth behavior training, and involves a multidisciplinary treatment team and individualized treatment plans for youth (Fisher & Chamberlain, 2000). However, all youth in

this TFC program receive individual outpatient therapy or family therapy with current or biological caregivers. Woodbourne's TFC program includes some of the quality features identified in blueprint programs, including small caseloads for TFC workers and ongoing training for TFC parents, and often TFC youth are placed individually in homes.

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Yes *(However, saturation of data was not discussed)*
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell *(Unclear that researchers examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location? How did the researcher respond to events during the study)*

Section	Question	Answer
Ethical Issues	Have ethical issues been taken into consideration?	Can't tell
Data analysis	Was the data analysis sufficiently rigorous?	Yes
Findings	Is there a clear statement of findings?	Yes *(Multiple analysts were also used)*
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and directness	Overall risk of bias	Low
	Directness	Partially applicable *(Study was from the USA)*

Channon 2020

Study Characteristics

Study type	Semi structured interviews

Aim of study	1 To examine the extent to which the intervention mechanisms appear to function as intended based on the stakeholders' description of their experience of the program. 2 To discuss the interaction between the mechanisms of impact and local contextual factors which may moderate the effect of the intervention. 3 To consider if any refinements of the logic model are needed in light of the stakeholder experiences of the intervention.
Study location	UK
Study setting	Qualitative study embedded within a randomised controlled trial of the Fostering Changes Programme for foster carers in the United Kingdom
Study methods	All foster carers involved in the RCT were invited to take part. individual stakeholder semi-structured interviews and the focus group with the training managers were completed after the courses included in the trial were finished. Interview questions were informed by the research aims. Interviews were audio-recorded and fully transcribed. Data collection finished when no new data were available and no new themes were emerging in the analysis. Interview and focus group data were subject to thematic analysis. Qualitative coding software, NVivo 11, was used to assist in data analysis. Three researchers (SC, EC, GM) were involved in the development of the coding framework. Double coding was carried out on 20 % of the data and discrepancies discussed until consensus was reached. The themes were identified before the results of the trial were known.
Population	Foster carers
Study dates	Not reported
Inclusion Criteria	Carer situation

	Foster carers, had a child aged 2 or older who they expected to be living with them for the 12 week duration of the intervention.
Exclusion criteria	Interventions received Carers must not have attended a fostering changes programme previously or shared a household with a foster carer who had done so. Not taking part in a children's skills group running concurrently.
Sample characteristics	Sample size 7 local authority and Independent Fostering Agency Training Managers; 8 foster carers who elected not to take part in the programme, 18 foster carers who attended the fostering changes programme, 12 social workers, 5 trainers. Carer characteristics 14/18 female, 16 from the local authority 2 from Independent Fostering Agencies, 3/18 kin carers. Years of experience range 1.5–26 median 7.
Relevant themes	Theme 1 Quality of the training - The majority of foster carer and social worker comments on the trainers were positive, describing their warmth, responsiveness, humour, expertise, knowledge and experience. They valued the quality of the trainers' working relationship with each other and with the group {R4}. Two of the foster carers however felt that at least one of their trainers did not listen to the group and a social worker described how one of their trainers tended to dominate rather than listen {R4}. " The trainers delivering Fostering Changes (who all had a social work background) felt well prepared by their five-day training in the program {R1, R2,} but also recognised the necessity of previous experience in group work to maintain the quality of the program {R4}. Funding was available for trainers to pursue accreditation, building on the basic training, and 10 of the 28 trainers had done so by the end of the trial {R3}. Several of the foster carers referred to the supporting materials as being helpful, enjoyable and a useful resource for the future {R6, R9}. Theme 2 Training environment - The courses were held in a variety of settings such as community centres, local authority or fostering agency offices. Many of the foster carers commented on problems with the venue including access, having to keep the noise down because of other activities in the venue, equipment not being available, last minute changes of room or venue and having a room too small for the group {R9} Theme 3 Composition of the group - The carer diversity featured regularly in the trainers' reflections, both in terms of promoting implementation but also as a potential barrier. Generally, the trainers and social workers felt that having a mix of levels of experience of fostering was helpful as each carer brought something different to the group. Trainers specifically identified the benefits of attending for kinship carers because they had not had a lot of training or exposure to other foster carers. However, in some instances, that meant the training had to be pitched differently due to a lack of background knowledge e.g. kinship carers often having had less training on attachment or raising different issues e.g. kinship family dynamics. Mixing kin

carers with other foster carers meant overcoming some barriers of perception at the start but it offered opportunities for reciprocal learning for all foster carers. "I think kinship carers, they were benefiting enormously every week. One of these kinship carers are saying, this is so good I have had nothing like this before. And it was hugely beneficial for her and the other foster carers really appreciated her input as well. And they were very supportive of her, so I like the mix.[T3]" There were some hesitations expressed by foster carers about the presence of a social worker in the group as they felt it might restrict the discussions. However, it seemed that generally this was positively received by social workers and foster carers as a way of breaking down barriers and moving away from a “them and us” situation, with some wishing social workers from their agency could attend. "like some of the ladies were like in the first two sessions oh my gosh, it’s a social worker, you know she’s a social worker, watch what we’re saying".” [FC2]. I don’t think it really made any difference. I think it gave a bit, er, you know, sometimes you have a bit more of an insight into what they did. …But it didn’t sort of intimidate me or anything like that because, um, I think it’s good that they were doing it. [FC3]"

Theme 4

Group support - The group support was a key positive from the foster carers’ reports {AG6}. The length of the course, giving the group time to get to know each other made a big difference to this sense of community. The mutual understanding and commonalities of experience brought the group together and supported each other through some challenging times, including when the strategies taught do not work{AG6; OS2; OS4}. "we all, obviously being there in a room full of other foster carers from different agencies and local authorities, they brought a lot of experience with them. So you get to hear a lot of case studies, you get to hear similar problems to your own and you get to hear things that they’ve attempted [FC62] But you know it’s good to hear how other people have tried to make it work and you’re not the only one if it hasn’t worked for you, sort of thing, you know. [FC4]"

Theme 5

A place of safety - Several foster carers referred to the group as a place of safety where they felt they could talk openly without concerns about sharing information and also being judged, a theme that was also reflected in the social worker feedback {AG6; OS4} "You felt safe saying things. You felt as though you weren’t going to be chastised and given a row and criticised and, you know, and things like that because people are … could have their feelings validated and understanding where we were coming from [FC7] Everybody talked about the children that they’d looked after. I was able to share things about my life and my work and it was a safe place to share information [SW7]"

Theme 6

Feeling valued by the trainers and the group - One outcome not reflected explicitly in the logic model was foster carers’ description of a feeling of recognition from the trainers and the group that they were important as individuals and valued in their role as a foster carer. The experienced foster carers also felt they had something to offer the newer foster carers. "I took away from the training that as a carer I was important... .that I was a linchpin in this child’s life and if I didn’t function the child didn’t function, the system didn’t function [FC6]" "I looked at myself and I looked around the room and there was people I wanted to be like and take part of them away and there was people and I wanted them to take part of me away [FC7]"

Theme 7

Consolidating and refreshing knowledge – giving a name to it - For many of the foster carers much of the information in the course was not new but it gave them an opportunity to consolidate what they knew, to give it structure, to provide some evidence and to formalise their knowledge in a way that was helpful {AG1□5}. "that one kind of brought it altogether and really made you understand more… [FC60]" The trainers identified that some foster carers, who already felt that they knew the program content, realised that they had not grasped the concepts properly previously and this course helped them improve and extend their practice: "I think that’s a big thing for us is that when we see people grow and we see people who think they know and then they start reflecting and they’re actually, maybe they didn’t know, or they didn’t quite use it, as well as they thought they did.[T1]"

Theme 8

Home practice - The logic model includes specific activities e.g. giving effective praise, but not the methods by which those activities are achieved. One of the key approaches was that the group were asked to practise implementation between the weekly sessions. The foster carers really valued this continuity from the work in the group to the home practice, then the feedback at the following week’s session. This model motivated foster carers to try something different e.g. reducing confrontation, increasing praise, and at times experiencing progress. One foster carer also suggested the practice helped people engage in a more active, personal way, making the course work for them. "I think that made you not, not have to participate

	because you could do the homework or not, but it made you think 'You know, well look, this is what I want to improve on. This is what I want to know about. This is what I want to learn about [FC7].'" Theme 9 Confidence building and advocacy - Foster carers referred to the positive impact of the course on their confidence in their actions, affirming that what they themselves thought was good practice was also viewed that way by others. This was not just in relation to behaviour management but also confidence to deal with the wider system, including being more confident taking on an advocacy role for their foster child {OS1-3, OM1}. The confidence-building impact of the course was also identified by the social workers: ""the one thing that did stick out for me was advocating for the child, like not to be scared, advocate for what the child wants, and stand by what they want, and not what the social worker wants you to do, or the family want to do." [FC2]" "I think part of that has been evidenced by, like I say, a small number of our carers actually turning round to our psychologist and saying actually can you give us some time to put this into practice because we're feeling quite confident with this now. [SW11]" Theme 10 Change in approach - The content of the course encouraged taking a more understanding, less confrontational approach {OS1-2; AG1-3; AS1-3} and many of the foster carers described having learned new ways of dealing with behaviours and situations, including praise and distraction {AS1-7}. "I think overall, it's made me stop and think more, before you do something, or maybe react to something. Because sometimes you're like, if you're busy and you think oh my God, you know, look what's going on here now, what's … but sometimes it makes you stop and think hang on a minute now, you know, let's play this down a bit now, and then like think about what the child is thinking [FC2]" Theme 11 Barriers to positive impact - There were two themes in the foster carers' experience of the course that could be barriers to the effectiveness of the training in bringing about change. Both related to a perceived poor fit between the foster carers' needs and what the course offered: One in terms of the pitch of the information and the other to what foster carers experienced as an inadequate response from trainers to foster carers trying to manage particularly challenging behaviour. Theme 12 Pitch - simplicity of information - Some of the foster carers and social workers felt that the information provided was too basic, reflecting things foster carers already know and not always adequate in the face of the challenges they were experiencing. One foster carer reflected this in suggesting that there needed to be two levels of course, for the new and for the more experienced foster carers: "I did feel at times that … I did feel it was teaching me to suck eggs because it wasn't advertised as a course for, um, new foster carers and I feel, er, that actually the course is much better for inexperienced and new foster carers [FC3]" "I think because of the complexity of the behaviours and things, er, that the carers are having at the moment…I don't think they're going to go and think, oh yeah, this is what we need. [SW8]". One social worker identified that the simplicity could potentially be helpful. The trainers were concerned when those who have been fostering for a while might identify the content as simple and feel they have nothing to learn: "It's not been, I think it's a lot more simple than I was expecting, I think I was expecting techniques to manage bigger issues, if that makes sense….however when you listen to the feedback, it's surprising how the little sort of basic things can make a difference so it's not necessarily a negative thing.. .It's sort of, it's sort of just stripping back the basics which, you know, I think people might lose sight of that sometimes when they're dealing with bigger things.[SW8]". That sometimes is the saddest thing because whenever people say, "Well, I know all this already", I just automatically get a little bit worried about their own development, really".[T4] As well as describing the information as basic, many felt that the strategies were suited to younger children and that by having foster carers of mixed age groups, the pitch was inevitably too simplistic to cover everyone's situation: "… they would have been better off to say right we'll have foster carers with children from nine or from ten to sixteen and then from zero to seven. They needed to split it up. … it was very difficult for the guys to put information across that dealt with everybody's needs, so it was a very quick snip onto that … and a quick snip onto this because they were covering such a wide range of age. [FC53]" However, it was also acknowledged that most foster carers will be caring for children of different ages so the mix might be appropriate in that context and also, as identified by a social worker attendee, there is often a difference between the child's chronological and developmental age so their functioning also needs to be taken into account. Theme 13

	Glossing over - One foster carer spoke very passionately about the fact that the course was not meeting the needs of those dealing with very challenging behaviours at home: As well as the information being too basic, the extent of the challenge was not acknowledged by the trainers and their difficulties glossed over: "I would say there was four or five of us who had children with very extreme behaviour and they just … they either refused to acknowledge it was as bad as it was or they just glossed over it. Or they just gave up….[FC59]" Theme 14 Relationships between foster carers and the agency - The descriptions of the foster carers' relationships with the fostering agency really varied. A few described an excellent working relationship. Many reported that the social workers were often overstretched, lacking experience and cutbacks had meant the service was stretched to the limit, including inadequate levels of support and supervision for foster carers. One foster carer felt blamed by the agency, that there was an imbalance of power and lack of mutuality. "The staff, you know, are under a lot of pressure and that negativity does, does impact and it does go down the chain and through the carers, which I think is a huge shame.[FC55]" "But social services always just cover their backsides, that's all they ever do, all they ever do. Then, and then the mire slides doesn't it, er, they'll blame the person at the bottom of the heap, not the person at the top and I, I always get the blame [FC51]" Theme 15 Perceived value of training - Training is a key point of contact between the foster carers and the agency. The foster carer reports of training act as a touchstone for their view of their role and how they feel the agency treats them. For those who want to be regarded as part of the professional team, there is a sense of frustration at the lack of emphasis on training and a lack of accountability for those who are not attending even for mandatory training. For others they feel their natural parenting skills were good enough so training is not necessary. The way some agencies managed training generally (not Fostering Changes) made it seem to foster carers that their training was not valued e.g. trainers not turning up, inexperienced trainers, sessions being cancelled at the last minute, lack of information and practical things like no venue or refreshments leaves foster carers who have made the effort, feel unappreciated. "I've been to a few [training events] recently where they've been cancelled and we've already been all sat there, you know rearranged days and things. So I don't think it's er valued as much I think. If it was a room full of, you know nurses or doctors or teachers, the trainers wouldn't dare not turn up. And I think that sometimes happens [FC50]" Social workers were aware of the amount of work that often had to go into engaging carers with training: "So it's chivvying, social workers chivvying foster carers up and trying to gain that, err buy in for them and that's difficult on an ongoing basis. [SW10]" The trainers talked about the complexity of recruiting foster carers for group work like Fostering Changes with a specific target number and eligibility criteria. The challenges included competing demands within the Local Authority/Fostering agency team but also misinformation from the agency to the foster carers about Fostering Changes, including practical things like start times, number of sessions and the reason for them to go, ranging from a punitive re-education to a much more positive celebration of their skills: "It […] very much varies, some of the conversations are really in-depth, the carers come on the course, have a real insight into what they're coming to, some of them it feels that they need numbers for a course and they just hurl people at the course, and they haven't a clue. [T1]" "They said to us that they felt like they'd been told "If you're having problems with fostering, you need to go and get some more information and be better." And that they were made to feel that you go on this course because you were rubbish, is basically what they were saying. [T5]"

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes

Section	Question	Answer
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Yes
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Yes
Findings	Is there a clear statement of findings?	Yes
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and directness	Overall risk of bias	Low
	Directness	Directly applicable

Conn 2018

Study Characteristics

Study type	Focus Groups
Aim of study	(1) To determine the impact of a foster care parenting program on child behavior, and foster parent stress and parenting attitudes; (2) To understand foster parent satisfaction and perceived effectiveness of a foster care parenting program, and (3) To understand what specific factors contribute to the immediate and sustained impact on parenting skills of a foster care parenting program.
Study location	USA
Study setting	Children in foster care aged 2-7 years
Study methods	Focus groups and individual interviews. Focus groups were with program participants to understand foster parents' acceptability of the program and factors that contributed to or impeded program effectiveness. In-depth interviews were used to understand the factors that contribute to the sustained impact of training on foster parents' parenting skills and attitudes.
Population	Children in foster care aged 2-7 years
Study dates	Not reported
Sources of funding	New York State Health Foundation
Inclusion Criteria	Age 2 - 7 years old Care Situation in family-based foster care Carer situation English speaking

Exclusion criteria	None reported
Sample characteristics	Sample size 12 foster parents, 5 participated in individual follow up interviews Gender 81.3% female Language English speaking Ethnicity 18.8% black Carer characteristics
Relevant themes	Theme 1 Need for validation - the value of peer support - Unique peer support from other foster parents. One general theme that emerged repeatedly within each of the three focus groups was the value of peer support. In fact, this theme emerged so strongly, we believe this is the most important contributor to foster parents' satisfaction with the intervention, and renewed satisfaction with their role. Foster parenting is a unique and at times difficult role that only other foster parents may truly understand. “You know the other part of it is that… I personally have a lot of friends and family that support us through being foster parents but none of them are foster parents… none of them have any foster children… they don't have experience with it… so I can't completely, openly talk about issues because they just won't understand… and I understand now why they don't understand… it's because they don't have anything to pull on… they don't have any background. So the support is limited even though they really want to support you and the advice they give is nice but a lot of its nonapplicable to the situation and it's just… it's hard stuff” Maria, foster carer. In addition to the many benefits from peer support, something deeper seemed to occur that could have a long-term impact on not only the children in their care, but their future as a foster parent. Several of these foster parents' reported an actual change in their desire to foster as a result of the intervention. "Yeah…I mean…without the group I wouldn't be here…I would be at my limit… done… no more fostering… no.” Tiffany, foster carer. Foster parents also noted the benefit of group meetings in sustaining newly learned skills, as the ongoing support impacted motivation. "“The group was here, so every week, I got some additional support to help keep those things [parenting skills] in place. Not just keep those things in place, but adding something new so that I was able to go home, still keep what I had and then try something in addition to bring about a better and a desired behavior from her. So I'm telling it- it was more than what I ever expected to receive.” Theme 2 New perspectives understanding trauma - Parents noted changes in the way they viewed the children they cared for. For example, many parents reported a clearer understanding of the impact of trauma on child development. Parents believed this new understanding of trauma enabled them to view the needs of the child differently, leading them to value more the importance of just “being a child.” - "“It opened up my eyes to… I mean… I knew that… I knew my child was from foster care… I knew that he was from neglect and abuse… and I knew that we had issues to work through. But for some reason… until I started the group… I kinda put those in the back of my head and in the front of my mind was,” You're a five year old… act like a five year old.” But the group helped me realize well no… I can't look at it that way… I have to realize I'm helping him work through his issues so I don't know… it made me stop and rethink where my focus was… and not that I wanted to lower my standards but I kind of needed to… to be an effective parent… foster parent." Tiffany foster carer. Theme 3

	Parents as playmates - new perspectives on the value of play - As a result, parents prioritized the Incredible Years skill of “child directed play” and saw great value in implementing the prescribed daily play time. "I think before I was just kind of like, “Oh play… that's something that kids do” and you know… I forgot as well we can't really expect kids to play by themselves as much as most parents do. Just go play… go play… and not engage them first… and also I am coming to that point where I see play as not just a time for the kids to be doing something to keep them busy but for an opportunity to use as a learning tool for everything… for self-regulation… for all kinds of things… how to build their social skills with each other and those types of things. Using play as a helpful tool to develop their personalities and make them better people.” Foster Carer. Foster parents' style of play has been permanently altered. Parents typically allow the children to do more of the leading while playing, and direct the child only when they feel it is absolutely necessary. This crucial aspect of the program, while difficult to implement at first, is an aspect that most parents incorporated as a key parenting value that has sustained over time. "I mean, before I, took the program I spent time with them, but not as much as I thought that I should have, but just set aside a lot of things in their life because when you go to through the program, a lot of things are identified, and one of the things that we did that I recognized that spending quality time with your children is very important because you really get to know what's on their mind and what they're thinking why they're having such behaviors, and you learn how to deal with them.” Foster carer. Theme 4 Parents as mechanics - tools for positive parenting - Foster parents learned many different skills to build positive behaviors so they would have a toolbox to draw from in any given situation. Foster parents told us they found most of these skills effective, and seeing tangible changes in child behavior is not only a benefit, but also a motivator to continue utilizing the newly learned skills. "We were deep into violent tantrums for months by the time we got into Fostering Futures [Incredible Years program for foster care]…it was a very difficult time when we started the class and it was through the class that helped us learn how to cope and what to do to help him out. And we had success. I mean not 100%, but they were steps that clearly were in the right direction from this class that I contribute to this class solely.” Foster carer Theme 5 Changing the rules - new attitudes - The foster parenting program impacted foster parents attitudes toward implementing rules, and the skills learned regarding clear rules and limit setting can generally be maintained on a daily basis, over a long period of time. “Before, we were really strict, our expectations were too high, basically. So, we set him up for a lot of failure. And, we have let go of a lot of little things that really don't matter, and that we don't have those battles” Foster carer. - ignore behaviours and they go away - The foster parenting program has helped foster parents effectively ignore their children's' unwanted behaviors, and the use of this technique has led to a decrease in negative behavior in the children that has lasted for a long period of time. “I ignore the behavior and eventually, they stop. Because when I, um, say something, if I say stop, they're gonna continue to do it more. So, that's one of the things that has really changed. I had to learn how to do that, but it works.” Foster carer

Study arms

Incredible Years (N = 12) This was a “trauma-informed” version of a well-known evidence-based parenting intervention, The Incredible Years Basic Preschool program is a 14 week prevention program for parents of children aged three to six years that is designed to build skills in positive parenting, teaching, and engaging with child serving systems. Using a pyramid model to guide the development and use of parenting tools, IY stresses that the majority of parent-child interactions should be positive and preventive while discipline (such as natural consequences and time out) should be used sparingly and is less often needed when parents utilize positive and preventive skills. Thus, IY emphasizes the use of play to build positive behaviors and devotes the first four sessions to perfecting this skill as the foundation of positive parent child relations. While the IY program already includes aspects of tailoring to specific needs of individual families and children's developmental needs, we enhanced the curriculum to include specific

information on the impact of childhood trauma on development, and the unique parenting role of foster parents. This information was derived from the National Child Traumatic Stress Network foster parent training resources (Child Welfare Collaborative Group, 2013) and Fostering Futures (Nilsen, 2007), a curriculum of foster parent training based on the school-aged Incredible Years series. Specific additions included developmental and culturally relevant handouts, activities, and discussions about attachment and bonding in foster care, roles and challenges for the foster parent, the impact of trauma on development and play, and the importance of promoting safety and security through the predictability of routine. Parents met for 2.5 h sessions (1/2 h longer than outlined in the IY protocol) to accommodate additional enhancements. However, the original 14-week curriculum was modified to 13 consecutive weeks to reduce the duration of education on time-out as a response to behavior (authors condensed the information from two IY sessions on time-out into one session). This was done because authors believed time out, or the removal of attention in response to a behavior, had the potential to re-traumatize some maltreated children. The program was extended to foster parents of children aged two through seven years. The first cohort met at an off-site community based location and the other two cohorts met onsite at the pediatric medical home. Parent sessions included dinner and childcare.

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes

Section	Question	Answer
Data collection	Was the data collected in a way that addressed the research issue?	Can't tell *(No justification of study setting. Form of data was not clear. No discussion of saturation of data.)*
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell *(Unclear that researchers critically examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location)*
Ethical Issues	Have ethical issues been taken into consideration?	Can't tell
Data analysis	Was the data analysis sufficiently rigorous?	Yes *(However unclear that researchers)*
Findings	Is there a clear statement of findings?	Yes *(and two analysts were used to improve credibility of findings)*
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and directness	Overall risk of bias	Moderate
	Directness	Partially applicable *(USA-based study)*

Cox 2018

Study Characteristics

Study type	Semi structured interviews RQ3.1
Aim of study	The aim of this study was twofold: first, to explore the experiences and opinions of key stakeholders regarding the intervention programme; and second, to understand the key enablers and barriers to successful implementation of the HEAL programme in residential care.
Study location	Australia
Study setting	Residential out of home care
Study methods	Carers and programme co-ordinators were interviewed. Interviews were conducted after completion of the intervention. Carers were asked specific questions related to: (1) establishment and/or maintenance of healthy lifestyle habits; (2) barriers to creating a healthy eating and active living environment in residential care; and (3) suggestions for future programme development. Coordinators were asked specific questions related to: (1) factors that impacted young person/carer engagement; (2) changes observed; (3) components of the programme that worked well/did not work well; and (4) what programme modifications are needed to ensure that any changes are sustained post-programme. Consistent with a framework analysis approach, relevant themes were generated from the interviews rather than an a priori approach. Quotes were coded according to theme-based nodes. Three authors read the transcripts and identified an agreed system for coding themes and content for each message. Any discrepancies were resolved by discussion.
Population	Carers and programme co-ordinators

Study dates	August 2012 to December 2014
Sources of funding	Australian Research Council Linkage Scheme
Inclusion Criteria	Delivering an intervention Carers and co-ordinators delivering HEAL a 12-month programme which provides information and practical opportunities for young people in residential out of home care to improve their health and wellbeing.
Exclusion criteria	None reported
Sample characteristics	Sample size 17 carers, HEAL co-ordinators Gender Carers were 66.7% female, Co-ordinators were 90% female Age 39.7 ± 11.3 years for carers, range 26 to 53 years for co-ordinators
Relevant themes	Theme 1 Necessity of the HEAL programme - low levels of awareness/knowledge about healthy lifestyle choices - When asked specifically about the young people's lifestyle habits prior to implementation of the HEAL programme, all carers commented that the eating and physical activity habits of the young people could be improved. Carers frequently commented that young people generally lacked awareness, knowledge and understanding of the importance of leading a healthy lifestyle, especially eating well and being physically active: "'They [young people] don't have a great knowledge of healthy eating and what they should be eating and what is a healthy amount of exercise.'" (RCW7) Theme 2 Necessity of the HEAL programme - Background of disadvantage - The carers emphasised the young people's vulnerable backgrounds and home environments prior to entering out of home care as a means of explaining their poor health literacy. Common explanations offered by carers included poor parental modelling, parental substance use, disruptive home environments and food being associated with the trauma of abuse and/or disturbed attachment. For example, one carer commented: "'Healthy eating is the least of their [parents'] issues. There is also a lot of thought that goes into preparing healthy food and facilities to store healthy food – resources families may not have. You need to go shopping and buy fruit and vegies and this may not be a priority for drug affected or addicted parents.'" (RCW13) Additionally, coordinators noted that many young people enter OOHC with pre-existing, food-related issues, and these were often linked with their past experiences. Common examples included hoarding, bingeing, stealing or hiding food, and a tendency to overeat. It was also apparent that the majority of young people have a preference for 'junk' food, and this was often associated with lifetime exposure to an 'unhealthy' food environment. Theme 3

	Necessity of the HEAL programme - Leading a Healthy Lifestyle is not a Priority - A number of carers suggested that, prior to the HEAL programme, establishing healthy lifestyle habits for the young people in out of home careresidences was not always a priority. Carers described how managing everyday routines in out of home care residences was their highest priority, especially crisis management, and often there was little time or energy left to encourage the young people to build and maintain healthy behaviours. Not surprisingly, the management of critical incidents also impacted implementation of HEAL. Coordinators talked about carers having to contend with aggression, substance abuse and criminal behaviour, and that a large percentage of their time is consumed managing these types of behaviours. HEAL activities, such as planning a healthy meal or going outside to be active, were sidelined when these crises occurred. One coordinator had concerns about carers in her units often using food to help manage difficult behaviours. For example, using junk food to diffuse a situation: "'If there's an argument, they're like, "ok, let's go for a drive". But a drive ends up at the KFC [Kentucky Fried Chicken] drive-through getting a slushy and then the slushy turns into a slushy and food. And this is after dinner, so right before bed.'" (HC 1) Theme 4 Any Healthy Change is a Good Change – What Worked in Implementation - Residential carers and coordinators talked optimistically about the programme's impact, and unanimously agreed that any healthy shift in a young person's lifestyle habits, as a result of participating in the HEAL programme, was highly valued. While not all changes were maintained for the duration of the programme, both groups noticed a shift in previously ingrained behaviours (of both young people and carers). Five sub-themes emerged. Theme 5 Any Healthy Change is a Good Change - Raising Awareness - Carers frequently commented that even if behavioural changes were not achieved, implementation of the HEAL programme resulted in a general shift in awareness around the importance of leading a healthy lifestyle. This was viewed as a valuable, initial step along the change continuum: "'…there's been more awareness of good health and exercise since we've had the HEAL programme. Whereas before we were just, I guess it wasn't as structured.'" (RCW15) For coordinators, the most significant change reported was increased staff awareness, with carers becoming more conscious of the types of food/drinks that they were providing to young people. Increased awareness led to changes in the OOHC environment including: provision of healthier food and/or beverages, an increase in the type and/or frequency of activities being offered to young people and improved role modelling by the residential carers. Theme 6 Any Healthy Change is a Good Change - Healthier Habits - Carers were asked to describe any changes that they had observed in the young people's eating habits since the beginning of the programme. Carers described both a reduction in 'unhealthy' habits, as well as an uptake of 'healthier' ones. The carers themselves mostly initiated and enacted these changes. For example, staff eliminated or reduced the availability of 'unhealthy' snacks (e.g. lollies, chocolates, chips), encouraged smaller serving sizes, restricted the availability of highly processed, convenience foods (e.g. frozen meals and snacks), offered less sugary drinks (e.g. soft drinks or juices) and used leaner cuts of meats in the main meals. A number of carers observed that these changes were not isolated to the young people; their units had also made changes regarding the types of foods that they and other staff would eat whilst on shift. "'There is more fruit and less snack type foods. We have moved away from chips and lollies and more on the healthier side. More cooked meals and lunches… we are still doing this now.' (RCW14)" Coordinators focused their discussion on improved physical activity, noting that many young people were eager to get involved in the activities that were presented to them through the HEAL programme. Novel activities and purchasing equipment for the unit(s) were used to increase physical activity levels, while simultaneously building rapport and engaging the young people in the programme content more broadly. For example: "'Sailing. We did a couple of overnight trips doing dolphin swims… we did rock climbing, trampolining… we had a couple of young people enrol in hockey and gym. The young people who were actively involved in the gym after the HEAL programme promoted that, are still going now. Lots of swimming...'" (HC 2) Over the course of the programme, many units began to incorporate physical activity into their weekly routines, with a number of young people engaging in regular exercise programmes. Coordinators also indicated that the programme contributed to the development of skills that are likely to support independent living post-care, as well as knowledge about leading a healthy lifestyle. For example, an increased number of young people demonstrated initiative by contributing to weekly menu plans and meal preparation. Theme 7 Any Healthy Change is a Good Change - Modelling is Key - Carers and coordinators talked about a positive flow-on effect from role modelling of physical activity, with the young people more inclined to engage in exercise when invited to join in with the carers or coordinators. Both groups highlighted the social benefits of co-participation, commenting that doing physical activity together provides an opportunity to spend quality time with the young people. Avariety of physical activities that they and the young people had engaged in as a result of the HEAL programme were discussed, including: organised sports (i.e. football and rugby), attending the gym together, personal training, swimming, walking, bike riding, dodge ball and trampolining. Two carers felt that the HEAL programme gave them leverage to start a conversation with a young person about eating healthily or being more active,

	for example: "'Personally it was a good opportunity for me to make an excuse to get the kids out. I would say, "C'mon we have to go do something, it's part of the programme". I used it as an excuse to get the kids to get out of the house. And I would take them to the gym, which was good for me, 'cause I got to go to the gym too.'" (RCW14) Theme 8 Any Healthy Change is a Good Change - Importance of Relationships - Another key theme that emerged was the importance of a strong relationship between carers and the young people, as a means to initiate and encourage change. In particular, carers discussed how a strong relationship helped them engage young people in conversations and/or activities, increased the likelihood that they would feel motivated to model staff behaviours and made it easier to broach issues that the young person may be facing. One carer talked about young people in OOHC often being mistrustful of adults, and therefore building a strong relationship increases the likelihood that they will respond positively to suggestions around improving their health. Similarly, if the coordinator was able to establish good rapport with a young person, he/she were more likely to be receptive to the programme. Conversely, weaker relationships reduced the likelihood of the young person engaging. HEAL coordinators felt that when they did engage, the young people enjoyed the specialised attention, without record keeping: "'Sometimes it's as simple as just talking to someone that isn't going to file note everything they say and do a handover...'" (HC10) Theme 9 Any Healthy Change is a Good Change - Connection to Community - Carers and coordinators capitalised on opportunities presented by HEAL to connect the young people with the wider community. Each described how the programme helped the young people become more engaged in the community, either through activities run across different OOHC residences or by connecting them with external organisations/services – each young person participating in the programme was offered a free six-month Young Men's Christian Association (YMCA) gym membership. Building these connections facilitated positive social interaction and improved their confidence. Theme 10 Room for improvement - Challenges faced in implimentation - Building Key Players "Buy-in" - Carers highlighted the need for better programme 'buy-in' from key stakeholders both within their unit and the broader organisation. They generally felt that not all carers, team leaders and/or managers actively endorsed the programme. This was perceived as a barrier to successful uptake and maintenance of the programme. Carers also talked about difficulties implementing HEAL when there were no formal consequences for not participating or actively engaging in the programme. This often resulted in varied staff engagement within the unit, that is, some people were inconsistent in their reinforcement of programme objectives with the young people, and impacted others' ability to initiate and sustain changes: "'…Good ideas would come in but wouldn't end up being the norm. And then the kids would push and someone caves. And then everyone has to cave, because it seems like it's not working.'" (RCW5) Carers also highlighted that young person 'buy-in' is important for longterm maintenance of the programme objectives. In particular, carers spoke about two main issues in relation to engaging the young people in the programme content: (1) although the HEAL programme is intended to be implemented using positive encouragement, incentives and reinforcement, not as a command and control approach with consequences for not complying, carers found it difficult because there were no repercussions for a young person not wanting to comply with their suggestions around changing their eating and/or physical activity habits; and (2) staff were discouraged from persisting with programme messages if it was perceived that doing so would be detrimental to their relationship with the young person. This is not dissimilar to coordinators who were unable to engage all young people in the programme content for a range of complex reasons, including social withdrawal (i.e. young person isolating him/herself from carers and other young people in the unit), frequent absconding, engaging in criminal behaviour, heavy substance use or a combination of each. The high turnover of young people (and carers) across different units also impacted the coordinators' ability to initiate and maintain relationships, and encourage programme participation: "'It's hard to make changes in adults that haven't been through trauma, like let alone kids that are so blocked off or disengaged.'" (HC10) For young people, other programme implementation challenges noted by coordinators included: (1) a lack of practical skills to translate their intentions into action (e.g. young people in OOHC have often missed typical opportunities in childhood for skill development, e.g. learning to swim or ride a bike); (2) difficulties forming relevant/realistic goals and sticking to them over a period of time; and (3) in some cases difficulties accepting authority and following rules, with the programme being perceived as a means of 'rebelling' and resisting rules (a trait that is characteristic of the teenage years). Theme 11 Room for improvement - Carers are Role Models - Carers and coordinators observed differences among carers' ability to be role models for young people. Carers who had an interest in their own health and wellbeing embraced being a role model and tended to show more initiative in terms of engaging the young people. However, carers could also work against the aims of HEAL by modelling 'unhealthy' habits. This was mostly attributed to some carers having low levels of health literacy, failing to recognise why it is important to focus on improving the young people's health (in the face of other challenging behaviours), misperceptions about what would be considered 'healthy' (e.g. carers mistakenly believed that their unit was already healthy) and lacking the necessary skills to model a healthy lifestyle: "'Ultimately up to the staff, if they don't do it in their own lives why would they do it

	differently at work.'" (HC8) Greater engagement was observed among carers who would actively seek out opportunities to get the young people exercising, and were constantly encouraging them to 'get moving'. Carers in these units were also more likely to access programme resources, to ask coordinators for advice and to work collaboratively to improve their unit's healthiness. Similarly, carers who provided consistent support to the young person to participate in activities (i.e. ensuring transportation to the venue, staff availability and continually providing encouragement) had the most success. Conversely, if carers were not committed to the programme, were hesitant to participate or were inconsistent, this was also reflected in the young people's attitudes and behaviours towards the programme, and long-term change was not established. Theme 12 Building Organisational Capacity - Ensuring sustainability - Creating a Health Champion - Carers' opinions were sought on which was the best delivery model for HEAL: a dedicated or specialist HEAL role (external model) or a carer (internal model). All but two carers believed that having an external HEAL coordinator, who embodied and promoted key programme messages, and worked alongside unit staff to embed the HEAL programme into standard practice, would be the best way to achieve the programme objectives. Suggested reasons for this included: (1) an external person is more able to focus on changes that could be made in a particular unit (given that it was his/her primary role); (2) carers are already overextended and therefore have limited time to implement an additional programme, for example, carers are often occupied with the daily routines of the residential care units (i.e. transportation, maintaining the cleanliness and order of the unit, following up young people who have absconded); (3) high staff turnover impacts consistency; (4) carers often have more immediate priorities (i.e. managing crisis and keeping the young people safe); and (5) an external coordinator was viewed as having more 'authority' to implement changes. Despite most advocating for a dedicated HEAL role, having a staff member within the unit take on the programme as an additional portfolio was still valued. Suggested benefits of this approach included having greater knowledge about the young people, the residential units and the organisation. One carer remarked: "'If the programme closes or whatever I am sure there would be other staff willing to take it on…we are more conscious of what we are doing and what we are feeding our young people anyway now."' (RCW5) Coordinators agreed that the programme had the greatest impact when they were able to identify a HEAL 'champion' in their unit(s). These carers were described as being passionate about the programme's objectives and proactive and they promoted the programme when the HEAL coordinator was away from the unit: "'So if there's more health conscious people in the unit, they're definitely more onside with the HEAL stuff, and will push it further, which has helped.'" (HC 1) Theme 13 Building Organisational Capacity - Making the HEAL Programme Sustainable - Although the carers were able to recognise a number of positive programme outcomes, there were mixed responses in regards to whether the changes were sustained throughout the duration of the programme or would be maintained post-intervention. Some carers were confident that any changes made were still in place. Others indicated that they were unable to achieve lasting changes. This was mostly explained by the young people's variable engagement (i.e. what is currently going on in their lives, and individual client complexities). It was clearly evident, however, that carers saw great value in the programme content: "'I thought it was a good opportunity to get something going in terms of healthy eating and activity which is something we have always looked to pursue. I dare say all residential programmes should have something like that.'" (RCW14) A number of carers made suggestions for improving the programme. These were mostly around tailoring the programme to fit the unique context of residential care. Specific examples provided by the carers included: fresh fruit/vegetable boxes, cookbooks, meal plans, vouchers for sporting organisations/activities and access to gyms. Other suggestions included having male and female HEAL coordinators, and increasing the number of people trained to deliver the programme content (to facilitate increased one-on-one engagement with the young people and positive role modelling). For coordinators, they generally felt that for all carers to be able to deliver the programme effectively, they too needed training in the programme content. Although this varied across staff groups, there was a sense that carers' health literacy could be quite poor, and therefore carers would benefit from developing their understanding of why it is important to lead a healthy lifestyle, both for the young people and themselves. Coordinators stressed that education alone is not sufficient. Additional training needs to: (1) be interactive; (2) include strategies on how to engage the young people in health activities and empower them to make positive behaviour changes; (3) include strategies for broaching sensitive topics; and (4) focus on their power as a role model. Additional suggestions to help prioritise health outcomes included: (1) formalising the expectation that young people are regularly involved in activities that promote their health and/or wellbeing; (2) incorporating HEAL into each young person's care plan; and (3) building a 'healthy eating, active living' philosophy into carers' position descriptions.

Study arms

Health and Wellbeing Co-ordinators (N = 27)

The HAWC programme pilot tests having a coordinator work alongside young people and staff to: (1) improve their understanding and awareness of healthy living and its value, mentally and physically; and (2) encourage them to participate in physical and other health activities. The pilot programme resulted in healthier eating and physical activity habits of the young people, and improved psychological wellbeing. The success of the HAWC pilot led to development, and evaluation of the HEAL programme; key stakeholders including residential carers, team leaders, executive managers and young people were engaged and consulted on decisions made regarding development of the programme materials. HEAL provides education on physical activity and healthy eating, community connections to foster these behaviours in the young people and good role modelling among their carers. HEAL is delivered by trained coordinators (either an external appointment or an internal residential carer trained in the HEAL programme protocols). Coordinators meet young people individually to develop a tailored health plan that includes goal setting around dietary and physical activity behaviours. Coordinators deliver the intervention, which includes activities such as healthy cooking lessons and sports challenges, and is structured around eight fortnightly themes addressing healthy eating, physical activity and wellbeing.

Risk of bias

Section	**Question**	**Answer**
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Can't tell *(Researchers did not explain how the participants were selected, or why these were the most appropriate to provide access to the type of knowledge sought by the study. Researchers did not describe why some participants chose not to take part.)*

Section	Question	Answer
Data collection	Was the data collected in a way that addressed the research issue?	Yes *(However, no discussion of saturation of data)*
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell *(Unclear that researchers critically examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location)*
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Yes
Findings	Is there a clear statement of findings?	Yes *(More than one analyst were used to analyse the data)*
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and directness	Overall risk of bias	Moderate
	Directness	Partially applicable *(Non-UK study)*

Dimaro 2014

Bibliographic Reference	DIMARO Lian; MOGHADDAM Nima; KYTE Zoe; An evaluation of psychological consultation to social workers; Adoption and Fostering; 2014; vol. 38 (no. 3); 223-237

Study Characteristics

Study type	Focus Groups Mixed Methods RQ3.1
Aim of study	This study aimed to: establish the extent to which social workers' goals were being achieved; and determine if and how consultation made a difference to social workers.
Study location	UK
Study setting	Nottingham City Children Looked After Capital Team
Study methods	The study employed a mixed-methodology design, elaborating routinely collected feedback data through group interviews with consulting clinicians. It was intended that focus group data would serve to contextualise findings from the feedback questionnaires, strengthen interpretation and generate workable recommendations for developing and evaluating future practice. Focus group discussion initially concentrated on service context and background to the evaluation, i.e. the intended aims and remit of the service, what the consulting clinicians wanted to learn from using the feedback questionnaires and what they expected the feedback to be, before progressing to consider results from the survey and reflect on possible understandings and implications of these data. Both focus groups were audio-recorded and transcribed verbatim. The questionnaire responses were subjected to descriptive statistical analysis. Inductive content analysis was used to analyse the focus group transcripts. The transcript was read through several times and initial codes were used to group the data and generate categories. These categories were reviewed, refined, combined and deleted; themes and sub-themes were

	subsequently generated. Mixed methods were integrated through an explanatory sequential design. In terms of interpretation and reporting, a contiguous narrative approach to integration is applied with cross-referencing for triangulation.
Population	CAMHS clinicans
Study dates	Not reported
Sources of funding	Not reported
Inclusion Criteria	Delivering an intervention CAMHS clinicians offering consultation to social workers
Exclusion criteria	None reported
Sample characteristics	Sample size 9 CAMHS clinicians participated in focus groups
Relevant themes	Theme 1 Provide something valuable - All clinicians saw consultation as a useful provision for social workers. In particular, they highlighted how they aim to provide a protected space to think about complex cases and gain different perspectives. They also reflected on the containing nature of consultation, how they hope to develop professionals' understanding of a child or young person's difficulties, manage risk and provide practical support with future planning, mirroring the most popular goals on the questionnaire data: "You may have a professional network who are extremely worried and they need containment . . . the space provided during consultation allows us to do that. (Clinician 1) I think it's probably about building a greater understanding really and putting the child into some kind of context, whether it's their attachment history or anything else . . . and think about what their needs are and how you can then put things in place to meet those needs. (Clinician 2) Risk assessment and sharing that risk and documenting that risk. (Clinician 3) There can also be the other side . . . a lot of what we do around transitions is a lot more practical, thinking about future pathway planning, where they're going to and if there are any issues." (Clinician 4) Theme 2 Consultation process - the importance of explicitness - The importance of explicitness was discussed as a critical factor throughout all stages of the consultation, including having well-defined service responsibilities at the time of referral, clear roles and specific goals outlined early on and mutually agreed distinct actions at the end of sessions. Explicitness was also identified as a potential area for improvement: "We're not explicit about what we don't do and I quite often have people asking for things and getting very fed up with us when we don't do them." (Clinician 5) Most clinicians were surprised by the low percentage of respondents who wanted help with considering effective ways to parent and/or form a relationship with a child. One interpretation was that despite this being a common thread throughout consultation, it was not made sufficiently explicit to social workers: "Maybe [the relationship] could be made more explicit in the actual consultation . . . it seems to be a theme throughout consultation but isn't honed in on." (Clinician 6) Theme 3

	Being flexible and guided by the client - Being flexible and guided by the client was also identified as a sub-theme, particularly early on in the process: "You'd ask at the beginning of a consultation what people wanted to get out of it . . . so people use the space in the way they need to." (Clinician 9) Moreover, this was suggested to influence the questionnaire data: "If you . . . use that space to focus on addressing the concerns [the social worker] has, you wouldn't have time and space to do some of that other stuff [on the questionnaire] so when the feedback was given they would probably say no . . ." (Clinician 1) Theme 4 Clinician-social worker relationship - clinician-social worker relationships were something that clinicians recognised as influencing the consultation process but that was not addressed in the questionnaire and may have also affected the results: "It doesn't pick up the kind of conflicts that might arise within consultation . . . and it would look like we haven't been able to achieve anything, but it's not through want of trying . . . " (Clinician 4) Theme 5 Impact of factors beyond the consultation room - Wider systemic issues were directly referred to throughout the focus group. These were categorised into two sub-themes. Other agencies, such as independent reviewing officers, social work managers and the courts, were all recognised as influencing whether consultation makes a difference: ". . . we can make suggestions for what the best arrangements for contact are but . . . if it doesn't fit in with what the IRO is saying or what their manager is saying or what the courts are saying, then they're just going to carry on as before . . . "(Clinician 4) As was the wider system ". . . maybe that [score on practice] reflects the bigger system, especially at the moment, social workers don't have a huge amount of choice about placements or those bigger scheme things so to change their practice is really difficult." (Clinician 8) Working effectively with staff/agencies and links with local services was also identified by both groups as a goal social workers wanted help with but that the service could improve on: "Forty percent of this wasn't achieved . . .We have all these other agencies coming up and we don't even know they exist." (Clinician 7) Social workers' motivation and expectations were also seen to influence what they would want from consultation and how satisfied they might be. In particular, one group speculated that the lower score on contact may be the result of social workers expecting court reports: "We've been more resistant to the issue of providing court reports in that area, which for some workers has been quite difficult." (Clinician 8) Theme 6 Challenges of evaluating social worker consultation - All clinicians acknowledged challenges with evaluating consultation. They were especially conscious of adding to social workers' already high workloads. One solution to this was administering the questionnaire early alongside other routine measures, but clinicians recognised that early evaluation was not ideal for capturing impact, which they perceived to occur over a longer period of time. There was some criticism of the items on the questionnaire itself, above all, on those asking about a difference: "We don't know what level of skill or ability to manage the situation they felt they already had . . ." (Clinician 9) Clinicians spoke about gauging the value of the service using other methods such as informally receiving positive feedback, good attendance and continued referrals. It was also noted that consultees are often given other feedback forms issued by the local health trust, subsequently raising questions about how to ensure quality of responses on questionnaires.

Study arms

Psychological Consultation for Social Workers (N = 48) Nottingham City Children Looked After Capital Team is a jointly commissioned service through social care and health, dedicated to providing targeted CAMHS provision to children in care. This multi-disciplinary team is made up of one specialist mental health nurse, six specialist social workers, two clinical psychologists, two art psychotherapists and a consultant psychiatrist, all of whom provide regular consultation to the professional networks surrounding looked after children. Each consultation is facilitated jointly by two members of the team, where possible combining different professional perspectives (i.e. social worker+psychologist) in order to offer a more holistic approach to exploring the needs of

the young person. The service also offers a variety of therapeutic approaches that can be accessed by the young people, including attachment focused therapies and a range of psychological models of intervention (including cognitive behavioural, solution-focused and narrative therapies). Young people are referred to the service via their social worker, prompted by a need being identified either by him or her or by another professional (i.e. GP or Independent Reviewing Officer). They can also enter as a result of the young person asking for help or by identification from a score exceeding the borderline threshold of 13 on the Strengths and Difficulties Questionnaire. Following receipt of the referral, an initial consultation will then take place with the social worker in order to obtain a more comprehensive history and to gain a sense of the expectations from the social worker of the CAMHS involvement, i.e. ongoing consultation and/or direct therapeutic work with the child. Following this, if subsequent consultations take place other professionals and carers are invited to attend. Consultations may be carried out at the CAMHS Children Looked After Clinic or at different establishments, such as residential units or other local authority premises, as appropriate. Across consultations particular attention is given to the consultee's approach to the child's or young person's difficulties. Although consultants bring knowledge and expertise to the reflective space, they work collaboratively with consultees to develop understanding, explore problems and look at possible solutions. Consulting clinicians within this service are well versed in the effects of child abuse, neglect, trauma, loss and separation, attachment difficulties and the impact of being looked after. They utilise a range of psychological knowledge to assess and formulate difficulties and propose appropriate interventions. Attachment theory is commonly drawn upon to help social workers make sense of problem behaviours. Psycho-education on the impact of trauma on the developing brain is also frequently applied. Knowledge in these, and other areas, lends itself to creating a reflective space where social workers can think psychologically about a child or young person and generate ideas for future care.

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes

Section	Question	Answer
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	No *(Researchers did not explain how participants were selected for the focus group discussions, why they were the most appropriate, or why some participants chose not to take part)*
Data collection	Was the data collected in a way that addressed the research issue?	Yes *(However no justification of setting or discussion of data saturation)*
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell *(Unclear that researchers critically examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location)*
Ethical Issues	Have ethical issues been taken into consideration?	Can't tell
Data analysis	Was the data analysis sufficiently rigorous?	Can't tell *(No in depth description of thematic analysis - Unclear the researchers critically examine their own role, potential bias and influence during analysis and selection of data for presentation)*
Findings	Is there a clear statement of findings?	Yes *(Triangulation occurred with survey findings, findings reported explicitly and clearly)*

Section	Question	Answer
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and directness	Overall risk of bias	High
	Directness	Directly applicable

Francis 2017

Study Characteristics

Study type	RQ2 RQ3 RQ4 Evaluation of an intervention Theraplay
Aim of study	This study aims to: • Explore the impact of Theraplay® group or individual interventions on the child's relationship with a key adult in school; • Explore whether there are changes in the child's engagement with education, such as their self- confidence, attention and concentration skills.

Study location	UK
Study setting	Looked after children referred from nine primary schools in an English local authority (Leicester)
Study methods	Post-intervention qualitative data were collected from the child's significant adult in school, using semi-structured interviews involving open and closed questions. A small number of semi-structured interviews with carers and a social worker were completed. The data were transcribed and analysed using thematic analysis (Braun & Clarke, 2006). Data extracts were colour coded and categorised into themes. The themes were then analysed using a Realist Evaluation approach (Pawson & Tilley, 1997, 2004).
Population	Looked after children who would benefit from additional psychology service support
Study dates	Not reported
Sources of funding	supported by the Leicester City Virtual School Team.
Inclusion Criteria	Age Primary school Mental health Looked after children were identified in consultation with the Virtual School Team as children who would benefit from additional psychology service support
Exclusion criteria	None reported
Sample characteristics	Sample size 20 looked after children Special educational needs or learning disability Four children had a Statement of Special Educational Needs or an Education and Health and Care plan and a further nine children had identified SEN and received SEN support in school.

	Mental health problems Looked after children were identified in consultation with the Virtual School Team as children who would benefit from additional psychology service support non-white ethnicity 60% White, 20% Asian and 20% Black/African/Caribbean/Black British Gender girls 55% and boys 45%. Number of previous placements he number of care placement changes the children had experienced ranged from one to six. Age The age of the LAC ranged from five to 11 years Education 70% of the children were in Key Stage One and 30% in Key Stage Two; 0% of the children had had two or more school moves. Three children had had one or more fixed term exclusions from school. Two children attended a pupil referral unit.
Relevant themes	Theme 1 Context: Care setting – carers and school staff felt that the child's early life experiences and placement instabilities impacted on the child's learning. Theme 2 Context: School systems – staff felt the work was constrained by limited time for sessions, support for teachers and the intervention not being embedded in the school. Theme 3 Mechanisms of intervention: Relationship with significant adult – staff appreciated opportunities to build relationships with the child/children. Theme 4 Mechanisms of intervention: Theraplay® activities – staff felt the individualised nature of Theraplay® activities matched the child/children's needs. Theme 5 Mechanisms of intervention: Consultation with staff – staff valued the additional sessions and having protected time for their own well-being and learning. Theme 6 Outcomes: Increase in positive relationships with peers and key adults. Theme 7 Outcomes: Increase in engagement with education – school staff noticed improvements in attendance, the children following adults' requests, and their attention and concentration.

	Theme 8 Outcomes: Increase in confidence and self-esteem. Theme 9 Outcomes: Increase in positive behaviours. Theme 10 Outcomes: Increase in enjoyment and engagement – children reported enjoying the group, making friends and feeling happy; some children shared the activities with their carers at home.

Study arms

Theraplay (N = 20)
Each child received weekly Theraplay sessions lasting for 30 minutes. The number and content of sessions varied depending on the needs of the child, determined at initial assessment. Some individual sessions took place at home. Group and individual sessions with the children were based on the Theraplay framework suggested by Booth and Jernberg (2010). A typical session would have the following core elements: welcome song, check-ups; Theraplay activities based on the dimensions of structure, nurture, challenge and engagement; snack and goodbye song. Consultation sessions with the significant adult were offered throughout the intervention.

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Can't tell *(The main focus of this mixed methods study seemed to be the effectiveness of the intervention, which is best answered using a quantitative approach.)*

Section	Question	Answer
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes *(However, unclear if/why some participants chose not to take part)*
Data collection	Was the data collected in a way that addressed the research issue?	Can't tell *(Setting not justified; unclear in what form the data took; unclear if data saturation was considered.)*
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell *(Unclear that researchers examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location)*
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Can't tell *(No in-depth description of thematic analysis. Unclear if sufficient data presented to support the findings; unclear if contradictory data was taken into account; unclear if researchers critically examine their own role, potential bias and influence during analysis and selection of data for presentation)*

Section	Question	Answer
Findings	Is there a clear statement of findings?	No *(There was no adequate discussion of the evidence both for and against the researchers arguments, or the credibility of the qualitative findings e.g. triangulation, respondent validation, more than one analyst)*
Research value	How valuable is the research?	The research has some value *(Findings were very much related to the intervention only, generalisability not discussed.)*
Overall risk of bias and directness	Overall risk of bias	High
	Directness	Directly applicable

Frederico 2017

Study Characteristics

Study type	Focus Groups RQ5.1 Mixed Methods RQ3.1 RQ1.1

Aim of study	The overall aim of the evaluation was to review the effectiveness of the Circle Program in achieving its objectives; review the outcomes for children and young people, carers and families; and to make recommendations for further development of the program. The evaluation aimed to add to the knowledge and understanding of the needs of children who enter TFC and how best to meet their needs and achieve improved outcomes for them.
Study location	Australia
Study setting	Children allocated to the Circle Programme - Treatment Foster Care
Study methods	Data were collected and analysed from (i) case assessments; (ii) focus group interviews with therapeutic foster carers, generalist foster carers, foster care workers and therapeutic specialists; (iii) an online survey for carers and workers; and (iv) interviews with therapeutic specialists involved in the Circle Program. Seven focus groups were conducted jointly with Circle and generalist foster carers and professional workers. Forty-three participated in focus groups which were mixed groups including therapeutic foster carers and generalist foster carers, foster care workers and therapeutic specialists. Interviews with therapeutic specialsts Two joint interviews were conducted with the two therapeutic specialist providers to examine their therapeutic practice approach and their compliancewith the guidelines and barriers to effective delivery. A separate teleconference was undertaken with child protection staff to explore their experience of Circle as no child protection worker was able to attend the focus groups. Two joint interviews were conducted with representatives of the two therapeutic specialist providers to examine the therapeutic practice approach and its compliance with the guidelines and barriers to effective delivery. All interviews and focus groups were digitally recorded and transcribed verbatim. The data from focus groups were analysed to identify common themes.A separate teleconference was undertaken with child protection staff to explore their experience of Circle as no child protection worker was able to attend the focus groups. Two joint interviews were conducted with representatives of the two therapeutic specialist providers to examine the therapeutic practice approach and its compliance with the guidelines and barriers to effective delivery. All interviews and focus groups were digitally recorded and transcribed verbatim. The data from focus groups were analysed to identify common themes.
Population	therapeutic foster carers and generalist foster carers, foster care workers and therapeutic specialists.

Study dates	Not reported
Sources of funding	Centre for Excellence in Child and Family Welfare Inc.
Inclusion Criteria	Carer situation therapeutic foster carers and generalist foster carers, foster care workers and therapeutic specialists. Delivering an intervention The Circle Programme - Therapeutic Foster Care
Exclusion criteria	None reported
Sample characteristics	Sample size Forty-three therapeutic foster carers and generalist foster carers, foster care workers and therapeutic specialists.
Relevant themes	Theme 1 The Circle Program was felt to be more likely to promote reunification with family or enter kinship care than among children in a generalist foster care placement. Factors contributing to the child’s relationship with their family of origin are identified in comments below: "The way the parents are treated and welcomed and their unique knowledge recognized contributes to the success of Circle (Therapeutic specialist) Families generally don’t come to every meeting but we encourage their attendance when they do come. In GFC, a carer has to be very assertive to create relationships with birth families, but it’s a much more natural process in Circle because of care team meetings" (Foster care worker) Theme 2 Factors felt to promote greater retention of carers - Focus group data highlighted factors deemed to be influential to carer retention such as support, training, ongoing education and access to flexible funds to obtain services. Comments highlighted the value of participation in regular care teammeetings. Carers spoke of their commitment to their role as a Circle carer, highlighting the experience of support, training and ongoing education. Theme 3 Access to flexible brikerage funds - Access to flexible brokerage funds was also critical. These funds were described by carers as supporting children to participate in normative community activities, for example a dance class or organized sport.Where a child required a specialist assessment (e.g. speech therapy) that was not available through public funding within a reasonable time frame, brokerage funding could be used. A key message from carers was the importance of accessing such discretionary funds to meet a child’s needs in a timely way. Theme 4 Carers treated as professional equals - The Circle Program was described by some carers as elevating the role of the foster carer to one that is ‘equal’ to the other professionals on the care team. This, combined with the Circle Program training, professionalized the role of the foster carer, and some carers reported increased levels of confidence in their competence.

	Theme 5 Equal system of carers - The egalitarian nature and common purpose of the care team were features mentioned by a number of focus group participants as having significance in their experience of TFC. Theme 6 Network of support for carers themselves - Carers also commented that the success of the Circle Program was linked to the professional support provided: feeling 'listened to', having their opinions 'valued' and being 'supported' in their role as foster carer. In the focus groups, carers discussed their role and participation in the Circle Program with passion and enthusiasm. The wellbeing of the carer was also a focus of care teammeetings with one carer commenting that someone always asked her how she was at care meetings and 'They really want to know how I am'! Theme 7 Contents of training - Training in trauma theory, attachment and selfknowledge were also identified as essential components by foster carers and foster care workers alike. "The education helps you not to take it personally and respond better and to keep the end in sight which is the relationship with the child'"(Carer). Theme 8 The key role of the therapeutic specialist - Therapeutic specialists were identified by all stakeholders as core to the Circle Program's success. Circle carers and foster care workers highlighted the value of this role in guiding assessment and the care of the child. The availability of the therapeutic specialist was considered a particular strength given their knowledge; and ability to assist carers in understanding the child and their needs. Their role was active in guiding the foster carer in their day to day response to the child and this was experienced as very supportive and was seen to facilitate a more immediate and appropriate response in meeting the child's needs. The therapeutic specialist could also extend their focus to include the child's family of origin as from the commencement of placement the aim is for the child to reunify with their family if the family can meet their needs. As many of the families of origin had themselves experienced trauma, it is important that they be assisted to heal and change to be available for the care of their child/young person. Theme 9 Building a support network for the child - Feedback from focus groups and the survey highlighted the importance of building a support network for the child/young person. This network included teachers, extended family and others in addition to themembers of the care team. The following quote highlights the theme in the feedback: 'The amazing camaraderie across the care team that is generated by the therapeutic specialist driving a continual focus on the child and the child's needs…. we really are a circle of friends around the child' (Foster Care Worker).

Study arms

Treatment foster care - The Circle Programme (N = 43)

The Circle Program, introduced in Victoria as part of a State Government funded home-based care system, aimed to ensure that 'all children receive the therapeutic response they require when they require it…'. The program was positioned within a 'philosophical framework that supports and promotes child-centred practice and the principles of children's rights' and 99 placements were initially funded. The conceptual framework was informed by trauma-informed principles and resilience theory, and positions the child in care at the centre of the program. The care environment is defined as 'relationships, home, family, school and networks created by the primary carer; and engagement of the child and

the family of origin where possible to promote family reunification, or long term stable care for the child'. The care team members include: the Foster Care Worker, the Therapeutic Specialist, the Child Protection Practitioner, Foster Carer and the Birth Family. Additional roles are added as needed to match each child's requirements. The core elements of the program are:- • Training in trauma and attachment. • Children entering The Circle Program are Child Protection clients and two thirds are to be new entrants to care. • Assessment of the child and an intervention plan led and coordinated by a therapeutic specialist • Individually tailored care teams designed to meet the specific needs of every child and young person entering The Circle Program. • As far as possible the family of origin were to be involved in the assessment process.

Risk of Bias

Section	**Question**	**Answer**
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes *(However, qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification.)*
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Can't tell *(Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part)*
Data collection	Was the data collected in a way that addressed the research issue?	Can't tell *(Researchers have not made focus group or interview methods explicit Setting not justified. Saturation of data was not discussed..)*

Section	Question	Answer
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell *(Unclear that researchers critically examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location)*
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Can't tell *(Thematic analysis process was not described explicitly.)*
Findings	Is there a clear statement of findings?	Yes *(Validation/triangulation from multiple sources was used (mixed methods))*
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and directness	Overall risk of bias	High
	Directness	Partially applicable *(Study was from Australia)*

Haight 2010

Study Characteristics

Study type	Semi structured interviews Mixed Methods RQ3.2
Aim of study	The aim of this study was to examine the responses of rural, Midwestern children from methamphetamine-involved families, their foster parents and community clinicians to a life story intervention
Study location	USA
Study setting	Rural setting in illinoise (American Midwest)
Study methods	Following the intervention, semi-structured interviews lasting approximately 15–20 min were audio-taped. Children were asked: what was it like for you meeting with (community clinician)? What kinds of things did you do together? Has meeting with (community clinician) been helpful to you? How? Do you think this program would be helpful to other kids? What could we do to make the program better? Children's interviews were transcribed verbatim. The interviewers spent time developing rapport with children and caregivers in their homes, which facilitated their willingness to discuss emotionally difficult topics. Emic codes which focused on the meanings ascribed by the participants to their experiences were developed through repeated readings of children's interview transcripts and caregivers' and community clinicians' openended questionnaires. Triangulation also occurred as data were gathered from multiple sources (children, caregivers and community clinicians). Member checking occurred through discussion of the coding with several participant adults.
Population	Rural foster children from methamphetamine-involved families
Study dates	Not reported
Sources of funding	National Institute on Drug Abuse

Inclusion Criteria	Age 7 to 15 years Care Situation In foster care Parent Parents misused methamphetamine
Exclusion criteria	None reported
Sample characteristics	Sample size 8 participants undertook the life story intervention (accounting for loss to follow up) Time in care mean 23.7 months Type of care Twenty-seven percent of children were living with relatives in kinship foster care, and 73% were living in traditional foster homes. Number of previous placements mean 1.9 placements Ethnicity All participants were caucasian Exploitation or maltreatment 73% of children had substantiated cases of neglect and 27% of sexual and/or physical abuse Other interventions received Upon entering the study, 11 children (73%) had received some supportive counseling services in the offices of master's-level clinicians
Relevant themes	Theme 1 Intervention was enjoyable - When asked what the intervention was like for them, most children characterized the experience as enjoyable, especially their relationships with the community clinicians who were described using words like “cool,” “fun” and “great”. For 14-year-old Brad, it was important that Lynn was “a local person.” As he elaborated: "It helped that I already knew Lynn from before. She lived around here so I'd seen her around the area and one of my brother's best friend's mother is Lynn's daughter…." Theme 2

	Someone to talk to - When asked how the intervention had been helpful, several children discussed the importance of having someone to talk to, especially about problems. Jason, aged 12, explained that it is hard for him to talk about his family, but that it felt good to share his memories with someone: "I talk about my family to her and usually to no one else….It just washes some of the stuff away from ya." Brad, whose foster mother maltreated him emphasized Lynn's role both in talking with him and in helping him resolve specific ongoing problems. "…most of the time we just talked about things. Usually it was problems I was having with B (foster mother) or something like that… it's just having somebody to talk to. Somebody I know that I can talk to that understands… it's like kinda relieving to know that somebody else listens to you and understands you and cares about what's happening to you…She (Lynn) understood everything I was going through and kinda helped me with it…." Theme 3 Initial anxiety about talking about experiences - Children also discussed challenges and limitations of the intervention. A number of children described initial anxiety about talking about their experiences. Kim, aged 12, described her initial feelings: "I didn't want to talk…. It was like, oh my God! I don't want to do this." Tom, aged 15, described that his anxieties resolved as he formed a relationship with Laura: "At first, I wasn't sure because I'm not really big on talking to people unless it's my mom or my grandma.... And Laura, she just, I felt something about her that I could just tell her anything…." Although his initial anxieties were resolved, Jason recommended that in the future we better prepare children for the experience of meeting and talking with an adult. Theme 4 Reluctance to revist the past when trying to start a new chapter - Mary, aged 10, however, remained ambivalent about talking about her experiences: "I really didn't like it…I don't know why…I just didn't like it at all… But then, after a while it was kind of fun... and then I didn't like it and we had to talk about my past tense and I just got out of that and I was feeling like I was being pulled back in…and she asked me, "Do you want to talk about your family?" and I said, "No."... Because I'm trying to get over what's happened in the past and I'm trying to start a new one….what I'm trying to say is that I really didn't like talking about my past." Mary felt that she had only been helped "a little…because it's like, I'm tough. I don't like to listen to people. I'mhard headed." She did, however, recommend the intervention to other children because Gayle: "…can really help you get out your feelings… keep doing what you're doing and helping kids know that it's alright to express your feelings… as long as you get them out and don't get pulled back in them again…" Theme 5 Continuity of care and sadness over the shortness of the intervention - A number of children also expressed how much they missed their community clinicians, and their sadness that the intervention was not longer. Theme 6 Bond and relationship - Caregivers' perspectives largely echoed those of the children.When asked about themost important part of the intervention,most described the time spent with the community clinician as enjoyable to the child. They valued the opportunity for the child to "bond" and to have "one-on-one timewith someone other than the family and foster family," and to "trust someone other than Mom." A number of caregivers developed supportive relationships with the community clinicians, which they found of emotional and practical help when dealing with children's difficult behaviors. Theme 7 Need for longer interventions - Their primary suggestion for improvement was to extend the time of the intervention beyond the seven months. Theme 8 Importance of setting - Michael's foster mother appreciated that his community cliniciancame to himat home,which was more comfortable to both her and Michael

Study arms

Life story intervention (N = 8)
"Life Story Intervention" (LSI) is a mental health intervention adapted for individual rural children (aged 7–17) affected by parent methamphetamine abuse by a transdisciplinary team including a child clinical psychologist, counselor, psychiatrist, developmental psychologist, child welfare professional and social worker. LSI draws upon empirical research on rural, methamphetamine-involved families and their children's experiences and psychological functioning; narrative traditions; and the treatment of trauma in children who have experienced family violence. It also draws upon the American Association of Child and Adolescent Psychiatry (AACAP) guidelines for intervention with children who have experienced trauma (American Academy of Child and Adolescent Psychiatry, 1998); and the considerable, locally-based clinical experience of team members with traumatized children in foster care who are affected by parent substance misuse. It is a narrative- and relationship-based intervention administered in and around the children's homes by community-based, master's degree level professionals experienced in working with children, e.g., teachers, child welfare professionals, counselors. Over approximately a 7 month period, children meet individually for one hour-long weekly sessions with these local professionals. These "community clinicians" receive weekly training and supportive supervision in a small group setting from a PhD level clinical psychologist or psychiatrist experienced in working with traumatized children and drug-involved families. (The psychologist and psychiatrist also are available for individual consultations.) In the first phase of the intervention lasting approximately 2 months, community clinicians focus on establishing an emotionally supportive relationship with the children, most of whom have histories of maltreatment and disrupted relationships with caregivers and other adults. Given children's relationship histories, it is especially important for community clinicians to carefully frame their relationships, including its time limits, with the children. Some described their relationships as "like at school." At the end of the school year, the student moves on, but the teacher is still interested in the child's progress, and they may even see one another around the community. During this first phase, the community clinician and child may engage in activities of the child's choosing such as walking in the woods, eating at a fast food restaurant, and playing with pets. The focus of the next approximately four months is the coconstruction of personal narratives. Children are invited, but never pressured, to talk about their lives in familiar surroundings in and around the home while engaged in activities such as swinging, drawing, reading children's books, pretending with puppets or a dollhouse, or just talking. Therapists working within a narrative framework emphasize the importance of creating stories as a way to help children interpret and gain a feeling of control and continuity in their lives, rethink views of themselves and others, and begin to alter problematic beliefs. In the context of children's own stories, clinicians also educate and correct misinformation about substance misuse, a necessary component of any intervention for children affected by parent substance misuse. Given the emotionally sensitive nature of this topic for many of the children in our study, as well as the socialization messages they may have received prohibiting the discussion of such information with family outsiders, the authors approach to substance misuse education is flexibly adapted to the child's tolerance. Trauma: There are a variety of approaches to therapeutic intervention with children who have experienced trauma which authors incorporate in LSI: 1) establishing a trusting relationship with a supportive adult is the focus

of the first two months of LSI and is emphasized throughout. 2) LSI focuses on children's understanding of and emotional reactions to trauma through the coconstruction of personal narratives. Clinicians do address traumatic events, an approach shown to be more effective than nondirective treatments, but with careful attention to the child's tolerance. The focus is not on the development of a “trauma narrative”, but of a life story, which includes traumatic as well as other events. 3) LSI is designed to support a sense of mastery over traumatic events, an approach which has been shown to be more effective than techniques designed to merely help children express their feelings. LSI focuses on the child's mature and adaptive as well as problematic, responses to difficult situations. Termination issues are the focus of the final month of LSI. During this time, the end of the intervention is discussed with children, and mementos of the time spent together are created, for example, pictures, stories, and other artwork. In addition, children are helped to identify a trustworthy, supportive adult in their existing social network, for example, a grandparent or teacher, who can provide ongoing emotional support. In the final session, clinicians meet with these “natural mentors” and the children to review progress, share the mementos and say good-bye.

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Can't tell *(It is unclear which children specifically were recruited for the semi-structured interviews)*

Section	Question	Answer
Data collection	Was the data collected in a way that addressed the research issue?	Yes *(However, no justification of setting or discussion of data saturation)*
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Yes *("The interviewers spent time developing rapport with children and caregivers in their homes, which facilitated their willingness to discuss emotionally difficult topics.")*
Ethical Issues	Have ethical issues been taken into consideration?	Can't tell
Data analysis	Was the data analysis sufficiently rigorous?	Can't tell *(No indepth description of the coding process. Often unclear if sufficient data to support the findings.)*
Findings	Is there a clear statement of findings?	Yes *("Triangulation also occurred as data were gathered from multiple sources (children, caregivers and community clinicians). Member checking occurred through discussion of the coding with several participant adults. Peer debriefings occurred through discussions with professional colleagues experienced in working with traumatized foster children from drug-involved families." However, sometimes unclear whether qualitative data was from questionnaires or semi-structured interviews in this mixed methods study)*
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and directness	Overall risk of bias	Moderate

Section	Question	Answer
	Directness	Partially applicable *(USA-based study)*

Jee 2014

Bibliographic Reference Jee, Sandra H; Couderc, Jean-Philippe; Swanson, Dena; Gallegos, Autumn; Hilliard, Cammie; Blumkin, Aaron; Cunningham, Kendall; Heinert, Sara; A pilot randomized trial teaching mindfulness-based stress reduction to traumatized youth in foster care.; Complementary therapies in clinical practice; 2015; vol. 21 (no. 3); 201-9

Study Characteristics

Study type	Focus Groups RQ3.2
Aim of study	This study had the following objectives: 1) to measure baseline stress among a group of youth in foster; 2) to design and implement a pilot program to target stress reduction by adapting an evidence-based group therapy technique that has not been applied to foster care; and, 3) to measure impact on stress using psychological and physiological techniques.
Study location	USA
Study setting	A pilot randomized trial teaching mindfulness-based stress reduction to traumatized youth in foster care, in Rochester, New York

Study methods	Focus groups were held with the intervention group participants to answer pre-approved questions about their satisfaction with the program and the usefulness of the Mindfulness-Based Stress Reduction sessions. Study participants were randomly separately into two groups, to ensure that youth had sufficient opportunity to share their perspectives on the program. Youth were also given the opportunity to reflect individually with research staff, if they preferred to speak privately, or after the group. Research staff used open-ended questions. Researchers conducted phone interviews with foster parents and caseworkers. The conversations were audio recorded for later verbatim transcription. Unclear how thematic analysis was performed.
Population	Qualitative data was collected from three different groups: the youth who participated in the intervention group, the foster parents of the youth and the caseworkers of the youth.
Study dates	2012 - 2013
Sources of funding	The University of Rochester Provost's Multidisciplinary Award
Inclusion Criteria	Age 14 - 21 years old Care Situation youth in foster care and supervised kinship care
Exclusion criteria	None reported
Sample characteristics	Sample size 21 young people who participated in the intervention Mean age (SD) 16.8 ± 1.8 years (total sample) Gender 45.2% female (total sample)

	Ethnicity Non-white ethnicity - 76.2% (total sample)
Relevant themes	Theme 1 Incentives are a motivating factor for youth to participate in the group - "I wouldn't come to the programme every week if i were not getting paid for it. I would come sometimes though" - 14 year old african american male subject Theme 2 Youth enjoyed being in a group with others were similar to themselves - "He can use all of the social outlets available to him. Although this was a foster care group, I think he appreciated knowing he was not alone and there were others that may struggle with his issues." - Caseworker of 15 year old white male subject Theme 3 Youth demonstrated gains in social skills, both short term and long term gains - "the youth learned necessary social skills with exposure to the other teens participating in the program. She became more aware of other's feelings" - foster mother of 15 years old African American female subject; "The youth is not using her situation as an excuse since participating in the program. She is starting to recognise that she has some control over her life" - Foster mother of 17 years old, White female subject Theme 4 Youth showed changes in responses to stress, both positive and negative changes - positive changes - "this program should go out to the community outside of foster care to impact others. I have been to therapy before but this group programme is much better. The therapist isnt bringing up the past or antagonising you. The program helps to move forward and doesn't focus on the past. If there was no money given, i would still come as I need all the help i can get." 15 year old African American female subject - negative changes - "She learned to eliminate some of her stress but as far as behaviour wise she still has some extreme behaviour as far as attitude and things like that. She learned to eliminate some of her stress by doing some of the quiet things she likes" - Foster mother of 15 year old African American female subject.

Study arms

Mindfulness-based stress reduction (N = 21)

Youth who were randomly selected to be in the intervention group were notified at session 1, and were encouraged to return for all 10 sessions. The weekly group was comprised of a two hour weekly session: the first hour was focused on a psychologist with expertise in mindfulness skills teaching the mindfulness intervention, and following an eight week mindfulness curriculum which has been widely studied among adult populations. The second hour was less structured, and was supervised by two pediatricians and a research assistant, and included dinner, and the opportunity to participate in various activities, which included guest speakers, arts and crafts activities, yoga instruction, playing youth-requesting music, and open time to socialize. Guest speakers addressed topics such as educational goals, summer youth programs, resume preparation and job-interviewing skills, and included culturally similar role models to the youth in the program. The first and last group included “ice-breaker” sessions that provided refreshments and informal mingling with other youth and program staff while youth completed consent forms, self-

assessments, and electrocardiograms. Authors adapted a mindfulness training program previously used with older populations for use with adolescents. Authors used a community-based participatory research approach [19] by using youth-directed feedback to guide life and social skills training curriculum. Topics included co-learning on promotion of healthy living principles, developing independent living skills (i.e., how to find a job, interview do's and don'ts, local community resources for job-hunting and summer program opportunities), discussion of health topics (i.e., nutrition, cooking healthy foods, open-ended anonymous questions for the pediatricians, teenage risk behaviors and contraception), and youth-guided arts and crafts projects (i.e., tee-shirt decorating, art therapy). Authors used the second half of our weekly meetings to reinforce principles of mindfulness in a less formal and collaborative group-based setting, and youth socialized while eating dinner together and learning about community resources.

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	No *(The research questions were better answered by quantitative techniques)*
Research Design	Was the research design appropriate to address the aims of the research?	No *(The researchers did not justify the qualitative approach used)*
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Can't tell *(Setting not justified; interview methods are not made explicit; no discussion of saturation of data)*

Section	Question	Answer
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell
Ethical Issues	Have ethical issues been taken into consideration?	Can't tell
Data analysis	Was the data analysis sufficiently rigorous?	Can't tell *(no in-depth description of thematic analysis)*
Findings	Is there a clear statement of findings?	No *(themes are very short with very little detail)*
Research value	How valuable is the research?	The research has some value
Overall risk of bias and directness	Overall risk of bias	High
	Directness	Partially applicable *(USA-based study)*

Frederico 2017

Study type	Focus Groups Mixed Methods

Aim of study	The overall aim of the evaluation was to review the effectiveness of the Circle Program in achieving its objectives; review the outcomes for children and young people, carers and families; and to make recommendations for further development of the program. The evaluation aimed to add to the knowledge and understanding of the needs of children who enter TFC and how best to meet their needs and achieve improved outcomes for them.
Study location	Australia
Study setting	Children allocated to the Circle Programme - Treatment Foster Care
Study methods	Data were collected and analysed from (i) case assessments; (ii) focus group interviews with therapeutic foster carers, generalist foster carers, foster care workers and therapeutic specialists; (iii) an online survey for carers and workers; and (iv) interviews with therapeutic specialists involved in the Circle Program. Seven focus groups were conducted jointly with Circle and generalist foster carers and professional workers. Forty-three participated in focus groups which were mixed groups including therapeutic foster carers and generalist foster carers, foster care workers and therapeutic specialists. Interviews with therapeutic specialsts Two joint interviews were conducted with the two therapeutic specialist providers to examine their therapeutic practice approach and their compliancewith the guidelines and barriers to effective delivery. A separate teleconference was undertaken with child protection staff to explore their experience of Circle as no child protection worker was able to attend the focus groups. Two joint interviews were conducted with representatives of the two therapeutic specialist providers to examine the therapeutic practice approach and its compliance with the guidelines and barriers to effective delivery. All interviews and focus groups were digitally recorded and transcribed verbatim. The data from focus groups were analysed to identify common themes.A separate teleconference was undertaken with child protection staff to explore their experience of Circle as no child protection worker was able to attend the focus groups. Two joint interviews were conducted with representatives of the two therapeutic specialist providers to examine the therapeutic practice approach and its compliance with the guidelines and barriers to effective delivery. All interviews and focus groups were digitally recorded and transcribed verbatim. The data from focus groups were analysed to identify common themes.
Population	therapeutic foster carers and generalist foster carers, foster care workers and therapeutic specialists.

Study dates	Not reported
Sources of funding	Centre for Excellence in Child and Family Welfare Inc.
Inclusion Criteria	Carer situation therapeutic foster carers and generalist foster carers, foster care workers and therapeutic specialists. Delivering an intervention The Circle Programme - Therapeutic Foster Care
Exclusion criteria	None reported
Sample characteristics	Sample size Forty-three therapeutic foster carers and generalist foster carers, foster care workers and therapeutic specialists.
Relevant themes	Theme 1 The Circle Program was felt to be more likely to promote reunification with family or enter kinship care than among children in a generalist foster care placement. Factors contributing to the child's relationship with their family of origin are identified in comments below: "The way the parents are treated and welcomed and their unique knowledge recognized contributes to the success of Circle (Therapeutic specialist) Families generally don't come to every meeting but we encourage their attendance when they do come. In GFC, a carer has to be very assertive to create relationships with birth families, but it's a much more natural process in Circle because of care team meetings" (Foster care worker) Theme 2 Factors felt to promote greater retention of carers - Focus group data highlighted factors deemed to be influential to carer retention such as support, training, ongoing education and access to flexible funds to obtain services. Comments highlighted the value of participation in regular care teammeetings. Carers spoke of their commitment to their role as a Circle carer, highlighting the experience of support, training and ongoing education. Theme 3 Access to flexible brikerage funds - Access to flexible brokerage funds was also critical. These funds were described by carers as supporting children to participate in normative community activities, for example a dance class or organized sport.Where a child required a specialist assessment (e.g. speech therapy) that was not available through public funding within a reasonable time frame, brokerage funding could be used. A key message from carers was the importance of accessing such discretionary funds to meet a child's needs in a timely way. Theme 4 Carers treated as professional equals - The Circle Program was described by some carers as elevating the role of the foster carer to one that is 'equal' to the other professionals on the care team. This, combined with the Circle Program training, professionalized the role of the foster carer, and some carers reported increased levels of confidence in their competence.

	Theme 5 Equal system of carers - The egalitarian nature and common purpose of the care team were features mentioned by a number of focus group participants as having significance in their experience of TFC. Theme 6 Network of support for carers themselves - Carers also commented that the success of the Circle Program was linked to the professional support provided: feeling ‘listened to’, having their opinions ‘valued’ and being ‘supported’ in their role as foster carer. In the focus groups, carers discussed their role and participation in the Circle Program with passion and enthusiasm. The wellbeing of the carer was also a focus of care teammeetings with one carer commenting that someone always asked her how she was at care meetings and ‘They really want to know how I am’! Theme 7 Contents of training - Training in trauma theory, attachment and selfknowledge were also identified as essential components by foster carers and foster care workers alike. "The education helps you not to take it personally and respond better and to keep the end in sight which is the relationship with the child’"(Carer). Theme 8 The key role of the therapeutic specialist - Therapeutic specialists were identified by all stakeholders as core to the Circle Program’s success. Circle carers and foster care workers highlighted the value of this role in guiding assessment and the care of the child. The availability of the therapeutic specialist was considered a particular strength given their knowledge; and ability to assist carers in understanding the child and their needs. Their role was active in guiding the foster carer in their day to day response to the child and this was experienced as very supportive and was seen to facilitate a more immediate and appropriate response in meeting the child’s needs. The therapeutic specialist could also extend their focus to include the child’s family of origin as from the commencement of placement the aim is for the child to reunify with their family if the family can meet their needs. As many of the families of origin had themselves experienced trauma, it is important that they be assisted to heal and change to be available for the care of their child/young person. Theme 9 Building a support network for the child - Feedback from focus groups and the survey highlighted the importance of building a support network for the child/young person. This network included teachers, extended family and others in addition to themembers of the care team. The following quote highlights the theme in the feedback: ‘The amazing camaraderie across the care team that is generated by the therapeutic specialist driving a continual focus on the child and the child’s needs…. we really are a circle of friends around the child’ (Foster Care Worker).

Study arms

Treatment foster care - The Circle Programme (N = 43) The Circle Program, introduced in Victoria as part of a State Government funded home-based care system, aimed to ensure that ‘all children receive the therapeutic response they require when they require it…’. The program was positioned within a ‘philosophical framework that supports and promotes child-centred practice and the principles of children’s rights’ and 99 placements were initially funded. The conceptual framework was informed by trauma-informed principles and resilience theory, and positions the child in care at the centre of the program. The care environment is defined as ‘relationships, home, family, school and networks created by the primary carer; and engagement of the child and

the family of origin where possible to promote family reunification, or long term stable care for the child'. The care team members include: the Foster Care Worker, the Therapeutic Specialist, the Child Protection Practitioner, Foster Carer and the Birth Family. Additional roles are added as needed to match each child's requirements. The core elements of the program are:- • Training in trauma and attachment. • Children entering The Circle Program are Child Protection clients and two thirds are to be new entrants to care. • Assessment of the child and an intervention plan led and coordinated by a therapeutic specialist • Individually tailored care teams designed to meet the specific needs of every child and young person entering The Circle Program. • As far as possible the family of origin were to be involved in the assessment process.

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes *(However, qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification.)*
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Can't tell *(Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part)*
Data collection	Was the data collected in a way that addressed the research issue?	Can't tell *(Researchers have not made focus group or interview methods explicit Setting not justified. Saturation of data was not discussed..)*

Section	Question	Answer
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell *(Unclear that researchers critically examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location)*
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Can't tell *(Thematic analysis process was not described explicitly.)*
Findings	Is there a clear statement of findings?	Yes *(Validation/triangulation from multiple sources was used (mixed methods))*
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and directness	Overall risk of bias	High
	Directness	Partially applicable *(Study was from Australia)*

Kirton 2011*

Bibliographic Reference	KIRTON Derek; THOMAS Cliff; A suitable case? Implementing multidimensional treatment foster care in an English local authority; Adoption and Fostering; 2011; vol. 35 (no. 2); 5-17

Study Characteristics

Intervention	**Multidimensional treatment foster care (N = 31)** Multidimensional treatment foster care, in its UK incarnation, reflected New Labour's concerns for joined up working between social care, education, and health agencies. There were important differences between the context and operation of MTFC in the UK compared to the USA. These included the location of MTFC within the care system rather than in a criminal justice setting. Another difference was that planned returns to birth families were relatively rare. Instead, the focus was on improved contact and relationships rather than training birth parents to pick up the model of care taught by Oregon Social Learning Centre. Government guidance suggested initially concentrating on those who were likely to progress in the programme, to build confidence, before moving on to harder cases. In evaluating the workings of the OSLC model it is useful to highlight two distinct but related challenges. The first is the different profile of UK participants compared with the US counterparts, and the greater emphasis on voluntary participation. Second, the highly prescriptive nature of the model can be seen as giving rise to tensions between the need for creative adaptation to the UK welfare system and the benefits of strict adherence to the programme.
Study type	Semi structured interviews RQ1 RQ2 RQ3 RQ4 Evaluation of an intervention Multidimensional Treatment Foster Care
Aim of study	to explore the experiences of multidimensional treatment foster care
Study location	UK
Study setting	local evaluation of MTFC within one of the pilot local authorities.

Study methods	Semi-structured interviews were conducted to explore respondents experiences of working within and perceptions of the MTFC model. No further information was provided about thematic analysis.
Population	Foster carers (8), children's social workers (6), supervising social workers (2), individual therapists, birth family therapists, skills workers (3), social work assistants, programme supervisor (1), programme manager (1), members of the management board (4)
Study dates	Not reported
Sources of funding	Not reported
Inclusion Criteria	None reported
Exclusion criteria	None reported
Sample characteristics	Sample size 31 interviews were conducted: Foster carers (8), children's social workers (6), supervising social workers (2), individual therapists, birth family therapists, skills workers (3), social work assistants, programme supervisor (1), programme manager (1), members of the mamagement board (4) Number of previous placements half of the children had had ten or more placements Age roughly three quarters of the children were aged 13 or over.
Relevant themes	Theme 1 A common language and focus: One of the main strengths offered by the OSLC model was a degree of focus or ‘common language’ (seen as crucial in a multi-disciplinary team) and clarity of expectations for young people: "We’re all very clear about what we’re working towards and it helps in not splitting that group around the child. (Team member)" Theme 2 The emphasis on rewards and punishments was generally regarded as crucial, both for its transparency and potential for setting and maintaining boundaries: "If they don’t earn it, they can see it, there’s something there that they can see, you can hold up in front of them and show them. (Foster carer)"

	Theme 3 Taking the emotion out of the situation: Another strength was the perceived capacity for the model, with its relatively neutral and technical language, to ‘take the emotion out of the situation’ and to avoid escalation in the face of anger and outbursts: "In a way it stops people really feeling too criticised because it’s like ... if someone says to you ‘off model’that’s like, ‘Oh well, I can get back on the model.’ (Team member)" "You need to be quite calm and not easily fired up, to be able to just walk away when they’re ranting and raving and they’re in your face and they’re shouting at you, and just walk away and let them calm down. (Foster carer)" Theme 4 Limitation 1: certain aspects of it needed to be ‘Anglicised’: Where they occurred, flexibilities tended to reflect either cultural differences or acquired practice wisdom. Within its UK context, some team members saw the programme being more holistic and less focused on ‘breaking the cycle of offending’, an emphasis sometimes couched in the language of ‘leniency’: "Helping that child develop ... in whatever way they need and meeting their needs to enable them to move to independence or whatever goes next to it. (Team member)" Theme 5 Limitation 2: , it would work for some young people but not others; Theme 6 Limitation 3: the longer-term benefits of the programme were uncertain Theme 7 Sticking to the model as a team: A clear majority of interviewees saw themselves and the programme sticking closely to what they understood as ‘the model’, while often disclaiming any detailed knowledge of it. This partly reflected the routinisation of practice and perhaps the strength of team ethos: I know ... as a team we work towards the model and it’s the Oregon model that we follow but it feels much more like we’re working to our team model. (Team member) Broad adherence reflected a number of factors. First, the model appeared to ‘make sense’ to most of those involved, with several foster carers claiming (though with perhaps some oversimplification) that this had been the basis of their own childrearing: It’s basically the way I brought my own children up, which is good children get lots of nice things and naughty children get nothing, but I do it with points. Second, the consensus was that, albeit with some flexibility (see below), the model ‘worked’ but that this required fairly strict adherence: We’re very close to the model on most things and whenever we stray I have to say that it kicks us in the teeth. (Team member) A third factor was that of external monitoring and reporting mechanisms, whether from the NIT or OSLC itself. While this sometimes involved elements of ‘presentation’ to outside audiences that differed from day-to-day realities, it also served to reinforce the programme’s logic and philosophy. Theme 8 Followed in spirit rather than to the letter: Much of course, depended on how far the model and its weighty manuals were to be followed ‘in spirit’ or ‘to the letter’. For example, one team member argued that expectations of young people in terms of healthy eating and eschewing of hip hop or rap music were unnecessarily restrictive and perhaps ‘unrealistic’. While most foster carers came to find the award and deduction of points reasonably straightforward, the challenges, such as balancing consistency and individualisation and handling value judgements, should not be underestimated: "My lifestyle to somebody else’s might be totally different and what I accept in my house is different to what somebody else accepts in theirs. (Foster carer)" Theme 9 What constitutes normal teenage behaviour? - Additional challenges included what constituted ‘normal teenage behaviour’ and how far the focus for change should rest with ‘large’ and ‘small’ behavioural problems respectively. These issues were, however, usually resolved fairly easily, with foster carers happy with their degree of discretion. Parental Daily Reports were sometimes seen as ‘a chore’ (Westermark et al, 2007), but almost universally valued for their capacity to concentrate minds on behaviours, to ensure daily contact between foster carers and the programme and help ‘nip problems in the bud’. "It makes me think about if things have happened, how I can do them better or how we can both do it better. So it’s reflection for me. (Foster carer)" Theme 10

	parental daily report - The data yielded were seen as useful for identifying trends and one-off or recurrent ‘spikes’ that might reveal behavioural triggers, such as contact visits or school events and as having a potential ‘predictive’ value for disruptions and optimal transition timing (Chamberlain et al, 2006). There were concerns that the prescribed list of behaviours was in places too ‘Americanised’ (eg ‘mean talk’) and that selfharm (not infrequent within the programme) was not listed separately but under destructiveness, requiring annotation to distinguish it from instances of ‘kicking the door in’. Similarly, there was no reference to eating disorders other than ‘skipping meals’. The question of whether behaviours were ‘stressful’ was clearly dependent to a degree on foster carers’ tolerance and time of completion: "The next morning or the night time everything’s died down and it probably isn’t such a big deal ... [do] you give yourself that time just to calm down before you put it in the behaviour or should you do it when it happens? (Foster carer)" Concern was also expressed that the Parental Daily Report’s focus on negative behaviours was not entirely congruent with the programme’s aims of accentuating the positives (see below), a situation that was seen as having a cultural dimension, with one team member commenting, albeit as a generalisation, on how US counterparts in MTFC tended to be ‘more upbeat about things’ and hence less likely to dwell on negative behaviours. Theme 11 Engagement was crucial to outcomes but highly variable and prone to change over time: "She couldn’t give a monkey’s. It didn’t matter what I’d say she was not gonna . . . And she stayed with me for three months and then she decided she’d had enough and went. (Foster carer)" More generally, however, engagement levels were thought to be high, with some respondents indicating surprise at the apparent willingness to accept a restrictive regime with its initial ‘boot camp’ withdrawal of privileges: "I find it bizarre that they engage with it really quite well ... I kind of think if I was a 13-year-old lad ... would I really want to be negotiating buying my free time, my time out with points? But they do ... and they stick to it. (Team member)" Theme 12 Need for persistence: Situations were described where young people would rail against restrictions and thwarted demands but ultimately comply. While the motivational value of an identifiable goal (such as return home) was recognised, sustaining interest day-to-day was equally important and required delicate judgements from foster carers as the following contrasting approaches indicate: "My young man likes to look at his points on a daily basis so we go through them with him and then we sit down and work out how he’s gonna use his rewards and what he’s aiming for next. I have to say that I don’t sit down and discuss points with [young person] every night because she will just rip it up and throw it at me and tell me what a load of bollocks it is" Theme 13 finding and tailoring the right rewards - Equally important, however, was finding the right rewards and appropriate means of earning them (although one young person was said to ‘just like getting points’), something that might entail individual tailoring: "She needs to score points really, really highly, so whereas one foster carer might give one of the lads ten points for doing what she did, she may need to earn 50 for it to mean something. (Team member)" If this raises questions of ‘inconsistency’, it was justified in terms of motivation, individual pathways and progression through the programme (Dore and Mullin, 2006). Similar logic had meant ‘massaging’ points to prevent a drop in levels, where this might provoke running away or placement breakdown: "I think with some young people they ... just wouldn’t manage being on level one and therefore it is slightly adapted to sort of manage that. (Team member)" Theme 14 are normal activities privileges? - Transfer of placements into the programme also raised questions of how far previously ‘normal’ activities could be recast as privileges to be earned. Over time, this had reportedly given rise to some variations or changes of practice, for example, on televisions in bedrooms or consumption of fizzy drinks. Theme 15 Need for redemption and engagement with point and level system - A key element of the OSLC philosophy is ‘turning it around’, allowing loss of points to be redeemed by subsequent good behaviour or positive reaction to the deduction. Although (some) foster carers felt this approach potentially made light of misdemeanours, the overall working of the programme was supportive of it: "Instead of giving her five points that she’d normally have I’ll say, ‘Well, you did that really well. I’ll give you 15 for that today.’ (Foster carer) You hear them talking about ‘I really turned it around today’ ... [or]‘I’m working towards my points.’ You actually hear the children saying, ‘I know I need to be on this programme’. . . they ... have that insight. (Team member)" One young person had reportedly asked his foster carer not to let him out in case he got into trouble and forfeited a much desired holiday, something that was seen as a significant shift in thinking and timescales.

	Theme 16 A behavioural model or an attachment model? Behavioural programmes are sometimes criticised for lacking depth or concentrating on 'symptoms rather than causes', a debate we explored in interviews. Foster carers tended to focus on their own specific role in dealing with behaviours and saw the addressing of any 'underlying' problems as being the responsibility of others, especially the individual therapist, as in 'I'm just trying to break a pattern but it's not actually solving why they do it.'Also emphasised strongly was the temporal focus on present and future, by comparison with attachment models 'looking backwards'. If in some senses, practice remained firmly within a behavioural framework, this was not seen as precluding consideration of attachment issues, whether at the level of understanding – 'I find it quite hard not to think about things in terms of attachment' – or in outcomes: "I think what's been helpful is people have sort of said, 'Oh, it's not an attachment model' and I just have been able to say to them, 'What do you think actually putting a containing and caring environment around a child does?' ... It's not the kind of ... Pavlov's dogs type thing that everyone thinks about when they think about behavioural models. (Team member)" **Theme 17** Importance of appropriate matching: While in principle, behavioural approaches tend to de-emphasise the importance of relationship, the crucial importance of matching (which tended to involve consideration of several young people for one (or two) foster carer vacancies) was widely recognised and seen as a key area of learning within the programme: "I think we're getting it right more often than not and I think that's reflected in the ... reduction of disruptions. When we do get it wrong we get it wrong very spectacularly! (Team member)" **Theme 18** Move on placements: Marrying MTFC's twin aims of providing time-limited 'move on' placements while effecting sustainable behavioural change required complex judgements as to the optimal timing of transitions (Cross et al, 2004). Opinion was divided on this (national guidance had suggested a shortening of placements from around 18 to nine months) between those emphasising the time needed to deal with 'long-term damage' or the dangers of 'relapse' and those worried about stagnation, disengagement or young people 'outgrowing the programme'. While practice wisdom and programme data were seen as aiding decision-making, follow-on placements remained a significant problem. In some instances, this had been resolved by the young person remaining with their MTFC (respite) carers, although this usually entailed the latter's loss to the programme. Consideration had also been given to the establishment of 'step-down' placements to provide a more gradual reduction in structure and support (NIT, 2008). However, such provision is challenging in terms of recruitment. Several young people who had left MTFC had subsequently kept in contact, and interestingly this included some early and late leavers as well as graduates. **Theme 19** Foster carers satisfaction with the level of support and out of hours service - Foster carers were extremely positive about levels of support in MTFC – 'Just absolutely amazing', 'I have to say brilliant. 100 per cent brilliant' – and some commented on how this had prevented disruptions that might otherwise have occurred. 'Enhanced' (relative to 'mainstream' fostering) features included higher levels of contact with supervising (and assistant) social workers and a structured pattern of short breaks or 'respite care'. In addition to their primary role of granting some relief from pressures, these arrangements sometimes evolved into follow-on placements after disruptions, helping to provide important elements of continuity. Another crucial 'enhanced' feature was a dedicated out-of-hours service staffed by members of the team, which, though used fairly modestly (typically one or two calls per day), was highly valued for its provision of a crucial safety net: "There's nothing more reassuring ... that you can ring someone up and actually hear that person on the end of the phone, it's not some call centre or someone you've never met before. (Foster carer)" Use of the out-of-hours service ranged from serious incidents involving offending, (alleged) sexual assaults, suicide concerns and violence or damage in the foster home, to reassurance on medical issues and dealing with difficult behaviours. **Theme 20** While the roles of therapists and skills workers sometimes raised issues of co-ordination with foster carers, their capacity to ease pressures at times of difficulty was valued by carers. **Theme 21** the foster carers' weekly meetings. These served both to ensure fairly prompt attention to issues, but also afforded the opportunity for mutual support and problem-solving **Theme 22**

	Success of co-ordinated working - There has been little research on the operation of teamwork within MTFC or its external relations. Despite significant staff turnover and some reworking of roles, the programme had also benefited from continuity in some key positions and a capacity to fill vacancies relatively quickly. From interviews and observation, internal roles appeared to be fairly clear and well co-ordinated, although the team's relatively small size had inevitably given rise on occasion to questions of flexibility, with tensions between willingness to help out and the maintenance of role boundaries (eg on provision of transport or supervision of contact): "On the whole, given that we have got a bunch of quite disparate professions ... we've got a conjoined CAMHS, education and social care team, there's a lot less conflict than I thought there might be. (Team member)" The workings of MTFC both facilitate and require high levels of communication, combining multifarious opportunities for contact with a need to pass on information regarding 'eventful' lives and high levels of activity on the programme. With occasional, and usually fairly specific exceptions, team members regarded communication as very effective, while foster carers were generally positive about their participation: 'They do value your input and they value your knowledge and your sort of past experience.' Theme 23 Leadership of programme supervisors - The role of Programme Supervisor (PS) as key decision-maker – variously referred to as 'Programme God' or 'the final word'– was crucial within the team. While some team members reported taking time to adapt to this, it was widely acknowledged that the PS and indeed 'the programme' could act as a lightning rod to defuse conflicts involving young people and their foster carers: "Always it's'[PS], says' ... in answer, so my [young person] wishes that [PS] would drop dead at any moment. But that takes a huge amount off of me because it's not me who's saying it. That's absolutely been brilliant. (Foster carer)" Theme 24 Clash with the children's social worker - Like any specialist programme, MTFC has faced challenges in its relationships with CSWs (often exacerbated by turnover among them) regarding the balance between a necessary transfer of responsibility on the part of CSWs while they continue to hold case accountability (Wells and D'Angelo, 1994). Despite routinely sent information and discussions with the PS, almost all CSWs interviewed expressed some concerns, usually involving either not knowing of specific incidents (eg entry to hospital) or more ongoing matters, such as the content of counselling. For some, the concern was simply about being 'out of the loop', while for others it was the potential for exclusion from decisionmaking and conflict with statutory duties: "It seemed to me that the treatment fostering team pretty much took on responsibility for the case, which is fine, but if anything goes wrong then don't make me accountable." From a programme perspective, there were occasional references to CSWs who 'found it hard to let go', or whose misunderstanding caused confusion. As one foster carer put it, 'they start telling these kids all sorts of things and you're thinking "no actually, they can't"', although it should be noted that some CSWs were viewed very positively. A more common concern, however, was that some CSWs 'opted out' once the young person entered MTFC, although this was often acknowledged (on both sides) as understandable given the workload pressures facing children's social workers: "[. . .] was the sort of child I used to literally wake up worrying about and I don't now because somebody else is doing that worrying. (CSW)" Encouragingly, CSWs also referred to improving communication, with some plaudits for MTFC being approachable and responsive. The programme had attempted to improve liaison by visiting teams and by inviting children's social workers to attend meetings, although these offers had not been taken up, with CSWs reporting diary clashes and imprecise timings to discuss 'their' charges. It was also noted that the very specific workings and language of MTFC were not always well-integrated into Looked After Children (LAC) review processes. Theme 25 Social workers were positive about the programme - "He was a really, really difficult young man and they've really supported him and provided him with a stable home environment, really, really firm boundaries which he's really needed . . . I think the placement's been fantastic. She would have met the criteria [for secure accommodation] in terms of running off ... self-harming ... And now the self-harming is very ... very limited. It changed his life around to be perfectly honest. Yeah, I'd go that far." This is not, of course, to say that time in MTFC represents any form of panacea, but recognition of its impact in often difficult circumstances: "He's only absconded three times in six months or so and it's only ever been running off from school and he's back by nine o'clock ... whereas before he was missing for days on end. (Team member) There are obviously still concerns about her emotional welfare and there will be, but she was a very, very damaged girl for lots and lots of reasons, but there was a time where I thought she just might ... not survive. (CSW)" The idea that even 'failed' placements might nonetheless carry some residual benefit for young people – particularly those in 'multiple disruption mode' was also expressed by some.

Risk of Bias	Section	Question	Answer
	Aims of the research	Was there a clear statement of the aims of the research?	Yes
	Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
	Research Design	Was the research design appropriate to address the aims of the research?	Yes
	Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Can't tell *(Researchers did not discuss how the participants were selected or why these were the most appropriate to access the type of knowledge sought by the study)*
	Data collection	Was the data collected in a way that addressed the research issue?	Can't tell *(Setting was not justified. Methods were not made explicit or justified. Unclear the form of the data and saturation of data is not discussed.)*
	Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell *(No evidence that the researcher critically examined their own role, potential bias and influence during (a) formulation of the research questions (b) data collection, including sample recruitment and choice of location)*
	Ethical Issues	Have ethical issues been taken into consideration?	Yes

	Data analysis	Was the data analysis sufficiently rigorous?	Can't tell *(No in-depth description of the analysis process. Unclear if thematic analysis was used. Unclear how the categories/themes were derived from the data. Unclear how the data presented were selected from the original sample to demonstrate the analysis process. Unclear if sufficient data presented to support the findings. Unclear if researcher critically examine their own role, potential bias and influence during analysis and selection of data for presentation)*
	Findings	Is there a clear statement of findings?	Can't tell *(No adequate discussion of the evidence both for and against the researcher's arguments or the credibility of their findings (e.g. triangulation, respondent validation, more than one analyst))*
	Research value	How valuable is the research?	The research has some value *(Qualitative findings relate to one specific intervention of interest. Findings are discussed in relation to current policy and practice.)*
	Overall risk of bias and directness	Overall risk of bias	High
		Directness	Partially applicable *(Data was likely collected prior to 2010)*

McMillen 2015*

Aim of study	The study was designed to address a number of questions. Feasibility questions focused on recruitment of youth and foster parents, randomization, and tolerance of the intervention and research protocols. Programmatic questions were also

	addressed. What would stakeholders think of new intervention components and roles? Were programmatic changes needed before moving forward with a larger trial?
Study location	USA
Study setting	A pilot RCT study of treatment foster care for older youth with psychiatric problems
Study methods	Qualitative data was collected as part of a randomised controlled trial. Qualitative interviews with youth focused on experiences with and opinions of TFC-OY program components. Sample questions and prompts included the following. "Tell me about your experience with this part of the program." "What do you like about it?" "What do you not like about it?" "What could be done differently to make this part of the program better?" Qualitative interviews with foster parents were conducted two months after placement and at the end of the placement or the end of the program. Foster parents were asked about successes, how the provided training helped or did not help them foster the youth in their home, what things the staff did that were found to be helpful and what could be done differently to make the program better? All qualitative interviews were audio recorded and professionally transcribed. Content analysis, based on straightforward analytic questions, was the qualitative analytic approach. This approach examines language content and intensity in a subjective interpretation of classifications, themes and patterns.
Population	Older youth with high psychiatric needs from residential out of home care programs
Study dates	Not reported
Sources of funding	U.S. National Institutes of Health
Inclusion Criteria	Age 16 to 18 years old Care Situation Were in state child welfare custody and served by a private agency, and were residing at a residential facility

	Time in care had been in the foster care system for at least 9 months Mental health Had IQ of 70 or greater but had been hospitalized for psychiatric illness in the past year or were receiving psychotropic medications;
Exclusion criteria	None reported
Sample characteristics	Sample size 7 participants were recieved treatment foster care for older youth and 7 were assigned to care as usual Mental health problems History of psychiatric hospitalisation 86% in the TFC group and 100% in the CAU group; psychotropic medication at first interview was 100% in both groups Gender 71% had female gender in both groups Age age at first interview in treatment foster care group 17.19 ± years, in treatment as usual group 17.25 ± 0.93 years Exploitation or maltreatment Physical abuse history 57% in TFC group and 57% in CAU group; physical neglect history 29% in TFC group and 14% in CAU group; sexual abuse history 86% in the TFC group and 29% in the CAU group
Relevant themes	Theme 1 How would foster parents and staff tolerate the intervention? - second feasibility worry was that the TFC-OY intervention would be difficult for foster parents to tolerate. This was confirmed. In addition, some staff found the work stressful. In weekly meetings and in the qualitative research interviews, foster parents reported that the youth were extremely difficult to parent. Despite training that focused on the needs of youth with psychiatric problems, the foster parents reported being surprised by the amount of emotional volatility in the young people they served, the low levels of what they perceived as emotional maturity, and high needs for monitoring and supervision. The following quote from a foster parent is exemplary. “It is challenging every day because I just have to pay attention to her moods more. The hardest thing is that I have to monitor her so closely and I have to watch what I say.” No parent or youth described an extended period of time when life settled into a comfortable routine. It always felt like stressful work to the foster parents. The experience was not easy for the TFC-OY staff either. One Life Coach was surprised by the low level of emotional functioning of youth in an office setting. "It seems like all at once, the kids started being very chaotic and disrupting things all over the place, and everyone was coming into my office, all in a row. Boom, boom, boom. And it was just chaos, chaos, chaos, chaos. Crisis. Running away from appointments. Breaking things. And it was for a month straight.” Theme 2 What would stakeholders think of the innovations in the treatment foster care model? - The skills coach component was uniformly appreciated by foster parents, the program supervisor and the youth. When asked about the skills coach component, the youth tended to report things the coach had done for and with them that were related to positive youth development. "She took me outside and she helped me find a job. She took me out to eat. She helped me get my driver’s license. She helped me get my permit. Helped me with my

	homework. She helped me learn how to make a grocery list, pay bills, audit. She helped me with a lot of things." Multiple stakeholders commented on the positive relationships that youth developed with their skills coaches, as exemplified in this quote from a staff member. "They've been able to build a relationship with the kids that doesn't have any strings attached. The kids look at them as somebody who's on their side and doesn't want anything from them." Theme 3 What would stakeholders think of the innovations in the treatment foster care model? - A second component that drew positive comments from stakeholders was that of the psychiatric nurse. Care managers appreciated the medication and diagnostic review provided by the nurse. They provided numerous examples of how they used this review and knowledge in their interactions with mental health providers. While some youth did not understand why they were receiving psychoeducation about their mental health problems from a nurse, others greatly appreciated it, explaining that it changed how they monitored their symptoms and how they approached their psychiatric providers. Theme 4 What would stakeholders think of the innovations in the treatment foster care model? - The role of the life coach was a difficult one to execute. Initially, the role was focused on interpersonal skills the youth needed to succeed in the foster home, but was later supposed to involve life planning and psychoeducation. Two life coaches worked in the program and both found their role frustrating. "To talk with them about school and work and STDs and their grief issues and their placement issues and what they did in school and their upcoming court hearing….you can't do all that so it was…at times it was a little overwhelming to try to basically do what I thought I was being asked to do." Theme 5 What would stakeholders think of the innovations in the treatment foster care model? - The family consultant role was less well received. The family consultant made many unsuccessful efforts to re-engage biological relatives and other nominated individuals into the lives of youth in TFC-OY and executed one successful effort, involving an older sibling. The role was also expensive (using a master's level mental health professional). In the end, the principal investigator concluded that the family consultant role would be eliminated going forward and that needed family work would be conducted by the program supervisor. Theme 6 Qualitatively, did stakeholders think there were clinical successes? - Stakeholders perceived qualified clinical successes. One example quote is from a caseworker who thought that the youth's participation was beneficial even though her stay in an initial foster home placement lasted only a few months. ""I think what was most helpful for her out of the experience was just knowing that she could be in a home, and that she realized that she had more control over her behavior than she thought she did. She'd say, 'You know, I'm crazy, I can't live in a foster home.' That kind of stuff. And so I think her being in that foster home, even though it was four months, she was like no other time I've seen her." Another qualified success was described by this foster parent, who saw substantial improvements in functioning in a youth she served. "She improved so much in her attitude toward others. It doesn't mean that she was without problems at the end, but it did mean that she seemed to start to get it. And that is the type of thing you feel really good about" Theme 7 Were program changes needed? - Since it was decided that it was permissible to alter the intervention mid-pilot in order to have an intervention worthy of testing at the end of pilot period, two modifications to the protocols were made several months into the intervention: 1) redefined roles for team members; and 2) efforts to address emotional dysregulation. Some of the life coach's responsibilities were offloaded to other team members. The skills coaches became responsible for helping youth plan for more independent living and the psychiatric nurse became responsible for providing psychoeducation about mental health problems. These modifications were considered successful, as viewed by stakeholders in qualitative interviews at the end of the project. Most glaring was the need to develop intervention components to address youth emotion regulation problems. Six of the foster parents interviewed qualitatively reported that the young people served in their homes experienced severe emotional outbursts; typically youth were seen as quick to become emotional and remaining emotionally volatile for substantial periods of time. In their qualitative interviews, foster parents used words like "fuming mad," "raging mad," "explosive," "just rage," "outbursts," "out of control," and "blowing up." This was seen and reported by program staff as well. These are the words of one of the life coaches who phrased the problem as one related to borderline personality issues and the possibility of incorporating components from a treatment for borderline personality disorder, Dialectical Behavior Therapy or DBT, known for addressing emotion regulation problems "If they have Axis Two with Cluster B stuff going on, I don't think that the families are prepared for what kind of emotions that can bring up… So I don't know if there needs to be some sort of training for the foster parents, training to know how to handle that. Have the foster parents go through some sort of DBT training themselves? So that they're at least speaking the same language to remind them to use their skills." During the last six months of the pilot, TFC-OY staff explored the potential of using processes and materials from DBT in TFC-OY to address youth emotion regulation problems. Staff received initial DBT training from a certified trainer and a DBT

	skills group was mounted with the foster youth to teach interpersonal effectiveness and mindfulness skills. The groups were well received by youth who attended them, but attendance was a problem, mostly due to logistics, such as distance from youth placements to the group site, work schedules, and transportation issues. By the end of the pilot, the intervention team concluded that any future trials or implementation of TFC-OY should be delayed until new intervention components were developed to address emotion regulation problems.

Study arms

Treatment Foster Care for older youth (N = 7)
Several features from the MTFC model were retained with modest adaptation. 1) The program supervisor ran the weekly team and foster parent meetings and was responsible for communication within the team and with the young person's family support team and agency case manager. This person was available via phone to foster parents on nights and weekends. 2) Foster parents met weekly with each other and the program supervisor to identify problem behaviors to target and develop strategies to be used in the home to address these concerns. Each role was specified in detailed manuals. Guiding philosophies were: to serve youth in families and communities, provide positive developmental opportunities, foster connections, encourage and enrich vital skills, limit access to negative peers, involve young people, have fun, individualize services, communicate among parties, recognize young people when they do well, plan-fully prevent problems, and help young people understand their mental health issues. Additions to the MTFC system included: A role for a psychiatric nurse was to assist in clarifying mental health diagnostic status and medications and to facilitate continuity of mental health care as youth transitioned into treatment foster care and across foster care homes. A family consultant role was designed to build community supports for youth to live more independently. The role of a master's level life coach was created (in lieu of a therapist) to assist youth in the transition to the foster home and in preparation for their next steps in the community. A new point and privilege system was developed for use in the foster home, with three phases designed to wean youth off of daily behavioral management charting. In the first phase, daily privileges were earned from the prior day's point total, with the young person's behavior rated by foster parents in ten areas (each worth ten points). Behavior, points and privileges were reviewed with the young person each evening. In the second phase, the points were eliminated, with privileges for the next day determined after an evening review of the ten domains (with no points assigned). In the third phase, a more general daily review between youth and foster parent was encouraged, but privileges were not determined on a daily basis. Skills coaches (different from life coaches) who worked with youth outside the foster home at least weekly, focused on independent living skill acquisition and healthy activities in the community. A 16-h TFC-OY foster parent training was created and manualized that emphasized description of the young people foster parents would be asked to work with, an overview of the program, noticing problem and cooperative behaviors, encouraging youth, the point system, teaching independent living skills, and creating opportunities for youth. Youth

retained their private agency case manager and their family support team. The family support team in this context was a group of adults (and the youth) who were consulted on case decisions at least once monthly including on placement decisions and treatment directions.

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Yes *(Setting not justified, saturation of data not discussed.)*
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell
Ethical Issues	Have ethical issues been taken into consideration?	Can't tell

Section	Question	Answer
Data analysis	Was the data analysis sufficiently rigorous?	Can't tell *(Unclear that researchers took into account contradictory data. Method of coding not made explicit.Unclear that researchers critically examine their own role, potential bias and influence during analysis and selection of data for presentation)*
Findings	Is there a clear statement of findings?	Yes *(More than one analyst was used during analysis)*
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and directness	Overall risk of bias	Moderate
	Directness	Partially applicable *(USA-based study)*

Lee 2020*

Bibliographic Reference	Lee, Bethany R; Phillips, Danielle R; Steward, Rochon K; Kerns, Suzanne E. U; Equipping tfc parents as treatment providers: Findings from expert interviews.; Journal of Child and Family Studies; 2020; no-specified

Study Characteristics

Study type	Semi structured interviews

	Evaluation of an intervention Treatment foster care
Aim of study	the study explored the following questions: (1) What do TFC parents need to know? and (2) What are the best practices for training and supporting them?
Study location	USA
Study setting	A project in the USA focused on building collaborative relationships between mental health therapists and child welfare workers.
Study methods	Semi structured interviews. The semi-structured interview protocol was focused on the current landscape of TFC practice, the competencies needed by TFC parents, and innovations or best practices in providing training to TFC parents. The interviews were intended to build a broad understanding of the current state of TFC practice as well as the "what" and "how "of equipping TFC parents. Recognizing that TFC practice nationally encompasses a range from highly structured manualized programs to more home-grown efforts, authors wanted to identify the essential elements of TFC parenting practice and how these are mastered through training and supports. The semi-structured interview protocol asked experts to describe what TFC parents needed to be successful and what training or supports should be provided to them. Two members of the research team (both with child welfare practice and research experience) independently read through the notes from each interview to identify comments from the experts that were relevant to the study's research questions: what TFC parents need to know and how they can be best prepared and supported. The comments that both coders independently agreed were relevant to the research questions were then re-read and labelled with initial themes. Thematic analysis was performed by two researchers. Respondent validation was performed.
Population	University based researchers and Treatment Foster Care Practitioners.
Study dates	Not reported

Sources of funding	National Center for Evidence-Based Practice in Child Welfare
Inclusion Criteria	Involvement in an intervention Participants represented varied content expertise that was relevant to the study i.e. practitioners and developers of treatment foster care.
Exclusion criteria	None reported
Sample characteristics	Sample size Across the 23 participants, 11 had significant practice and administrative experience in TFC, with an average of over 20 years of experience in child welfare, and treatment foster care specifically. Seven of the experts were university-based researchers who have published studies on TFC or developed TFC models that have been empirically tested. Of the 7, six were full professors or serving at the top rank at their institution. Finally, five of the experts were primarily knowledgeable about best practices in training and knowledge transfer in child welfare. They worked in child welfare training settings or otherwise have significant experience in designing, delivering, and evaluating training content.
Relevant themes	Theme 1 Parent vs. Treatment Provider - Several experts commented on the challenges TFC parents face in balancing their role as a caregiver with the expectation to be a professional. As one expert described, "TFC foster parents must be able to walk the line of being a treatment professional and being a caregiver: connect to kids in a positive way but also follow a treatment plan and implement good interventions." In treatment foster care, the experts emphasized how the TFC parent is responsible for creating an environment that provides a therapeutic experience for youth. Although the TFC parent may not have a clinical education or license, several experts expressed that "TFC parents are the ones who create the change." Youth in a treatment foster care placement may also be receiving therapy outside the home, but "the foster family is the agent of treatment, not therapy from the outside." The home setting itself is intended to be transformative. "TFC foster parents as the therapeutic component should be seen as 'the key' action in the model. The therapists are important, but the foster parents are the key with their day-to-day interaction that is of optimal importance." Although many TFC parents have experience and competence with parenting, this is no guarantee that they will be effective as a TFC parent. "It's a different relationship and different skill set than parenting your own children," expressed one expert. Because of the professional expectations, the TFC parenting role requires more than just parenting expertise. This includes being "…willing to take supervision– not just insist on doing things the way they did with their own kids." This tension between being a caregiver and being a treatment provider is not just about different competencies but also about embracing this expanded role. One expert implored that "if foster parents saw themselves in the role of being helpers, that would be really good." TFC parents are caregivers, but must have the skills and mindset to be more than just caregivers. Theme 2

	Parent Expertise vs. Worker Expertise - As TFC parents are empowered to have larger roles as experts of the youth in their home, they may struggle to collaborate effectively with their TFC social worker. One of the workforce dynamics commonly found in TFC agencies is that TFC parents may have more life and parenting experience while TFC social workers may have more formal training and education in treatment approaches. As one expert described, "Workers who have less experience than the foster parent is an issue because they are often young and they have no information and no history of the foster child." Another stated, "Staff don't have the skill or background, which is frustrating for the foster parents. TFC social workers really can't help them… and then TFC parents don't get the help they need." The different types of expertise is not just a problem for the TFC parents. For TFC social workers, playing a supervisory or coaching role with experienced TFC parents can be intimidating. As one expert described, "Sometimes the least experienced staff are doing the most challenging role: overseeing someone older with more life and parenting experience. There are a lot of barriers there." This tension may inhibit the social worker from providing validation to the TFC parent's role as a treatment provider. To manage this tension, the experts offered several ideas. Operating from the perspective of a strengths-based partnership was one suggestion: "How can you look at strengths of a worker and strengths of the TFC family and how you can partner together?" Recognizing that each type of expertise can have value and contribute towards the family's success is key. For example, when managing bureaucracy within the system, "social workers know to climb the ladder, but parents often do not." Similar to how the TFC parenting role needs to be understood as more than just parenting, TFC social workers may benefit from recognizing the expertise they can offer. As one expert suggested, "You have to emphasize this is a professional role so building up and empowering workers to be seen as experts. Having the structure of in-home observation and home visits make it more of a professional encounter and may communicate that the worker has credibility." These tensions illustrate the complexity of treatment foster care. Attempting to reverse the traditional top-down power structure of service delivery can create friction for TFC parents as they navigate their dual role as caregivers and interventionists and for social workers that are tasked with empowering these parents while also demonstrating their own value. Theme 3 Treatment Team Membership - By nature of their role, TFC parents will interact with a number of professionals who are also involved in the life of their child. As such, it is essential that TFC parents are "able to be a team member and see themselves as part of a team." One expert described these team skills as being able to "work closely with the caseworker, open to invasiveness with the caseworker coming to your home and having expectations of you; partnership with clinical interventionists, school systems, and court appointed advocates, and developing relationships with this person as well. Also partnering with the community to support the youth's religious and ethnic identity, keeping the child engaged in whatever community the child is used to." These diverse and multiple connections are important for the youth and the TFC parent has primary responsibility in maintaining them. One expert emphasized the central importance of the TFC parent with their social worker. "If there is a good working relationship [between the TFC parent and their social worker], then they will work better…. If it is one of mutual respect, they will work well together. They need to be respectful of each other's experience and prior roles as we inch them closer to doing something different." Working together with their treatment team are essential skills for TFC parents to be successful. Theme 4 Advocacy - As experts on the TFC child in their home, parents need to be able to advocate on behalf of the child. One TFC expert described this as "TFC parents should be the voice for the youth." This means not being afraid to speak up for the child in an active way. "Foster parents need to be assertive when working with professionals within various systems because they are the child's primary advocate; TFC parents know the child more than anyone. Because they know the child better than anyone else, they can talk about what that child needs and is experiencing." The TFC experts noted advocacy may occur in various settings, including education, medical, and behavioral health services. Theme 5 Systems Knowledge - Treatment foster care services span both the child welfare system and the behavioral health system, each of which are complex organizations that TFC parents need to know how to navigate. As one expert explained, "Understanding the system is really important…. It would be really helpful for caregivers to know the system in their state, how things are funded, and what each system's role is to the child." This includes knowing "how do you get access to services? What if you don't think the services are helping? What else is out there?" One expert also mentioned knowing how to communicate within these systems: "Being able to speak clearly and rationally, not emotionally and understanding the language of those systems." Equipping TFC parents with knowledge about how these systems work can prepare them for their complex role. Theme 6 Managing Challenging Behaviours - Parenting youth with emotional and behavioural issues requires specialized skills. The experts noted that TFC parents should have the capacity to identify when a youth may require clinical care: "recognize mental health problems, especially if that child needs a referral. Foster children benefit if the TFC parent has a basic awareness

	of when a kid is having a behavioural or mental health problem." Understanding the child's behaviour through a trauma lens is important. "Knowing about adverse childhood experiences and how trauma can affect long-term health, but that you can intervene and that reinforces the need for mental health services. This helps parents better understand and cope with some of the behaviours." In addition to insight about the purpose behind the child's behaviour, TFC parents benefit from understanding how their own reactions may be a factor in the child's behaviour. One expert noted that "as a TFC parent, a common occurrence is getting your buttons pushed (foster parents reacting to kids instead of being proactive and stepping back, walking away and gaining control). … If foster parents can learn how to not react in the moment, how to take care of themselves and how to model that for our kids, that's huge." As these quotes illustrate, behaviour management competency requires knowledge and insight as much as techniques and strategies. Theme 7 Experiential Training - Universally, the experts encouraged hands-on learning opportunities during training for TFC parents. One of the experts explained, "A lot of families are not oriented to academic learning. It's great to give foundational information, but it has to be operationalized." One TFC expert recommended to "do a lot of experiential pieces in the training: practicing and role play. Keep it very behavioural." Another expert suggested, "giving them a skill, having them practice in class, and then work with the kids at home." As summarized by one expert: "the more interactive, the better." Theme 8 Ongoing Skill Building - The experts seemed to agree that a single training event without follow-up would have little impact. As one expert noted, "Follow-up to training is what is most important. Once a parent has a child in their home they utilize the training and tailor it to the child they are working with. Training is only as good as the follow-up and support." This ongoing skill building could be in the form of a coach that could provide follow-up consultation and refining of skill development. One expert suggested that the "Biggest support (to provide TFC parents) is coaching… This is more important than the training… Coaches who they can call in the moment could be really helpful." Another expert reinforced this sentiment by concluding that "ongoing coaching is what really changes practice." Theme 9 Peer Support - The experts emphasized the value of engaging other TFC parents in training and supporting TFC parents who are newer to the role or struggling. As one expert and TFC provider noted, "We used to have all training done by professionals. Now, we have parent trainers. This has been an incredible piece of our success. Parent voice to other parents is so important." Learning from other parents was viewed as both credible and encouraging for TFC parents. As one expert explained: "There is a lot of learning that happens in peer-to-peer interaction. It's important to know the things you are experiencing are similar for other people. Peer interaction offers support, normalization, and behavioural strategies to figure out how to be positive with the kid most of the time." The benefits were attributed to not just the recipient, but also for the experienced TFC parent who is able to exercise this leadership and service. "TFC parents are willing to be mentors and it's a real validation to them and a way they can share their competencies."

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes

Section	Question	Answer
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Yes *(However, no discussion of setting or data saturation)*
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Yes
Findings	Is there a clear statement of findings?	Yes
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and directness	Overall risk of bias	Low
	Directness	Partially applicable *(non-UK based study)*

Mezey 2015

Bibliographic Reference Mezey, Gillian; Meyer, Deborah; Robinson, Fiona; Bonell, Chris; Campbell, Rona; Gillard, Steve; Jordan, Peter; Mantovani, Nadia; Wellings, Kaye; White, Sarah; Developing and piloting a peer mentoring intervention to reduce teenage pregnancy in looked-after children and care leavers: an exploratory randomised controlled trial.; Health technology assessment (Winchester, England); 2015; vol. 19 (no. 85); 1-vi

Study Characteristics

Study type	Focus Groups Semi structured interviews RQ2.1 RCT
Aim of study	To develop a peer mentoring intervention to reduce teenage pregnancy in LAC
Study location	UK
Study setting	Three local authorities (LAs) in England
Study methods	Follow-up semistructured interviews were conducted with mentors, mentees and PCs. The interviews explored their experiences of the mentoring relationship in terms of its acceptability, appropriateness and impact, their views of whether mentoring is effective, their views of how it effects change and their suggestions for how mentoring could be enhanced. Interviews were also sought with mentors or mentees who left the programme early, to understand their reasons for exiting the study. Interviews were conducted on LA premises or at participants' home address, depending on their preference. A pragmatic thematic approach to the analysis of qualitative data was used, seeking to provide a largely descriptive account of the peer mentoring process that would complement the

	analysis of quantitative data and enable further refinement of the intervention and research procedures. Multiple researchers took part in the coding (NVivo was used).
Population	Female looked after children and care leavers
Study dates	2011 to 2013
Sources of funding	the Health Technology Assessment programme of the National Institute for Health Research
Inclusion Criteria	Age aged 14 to 18 years Care Situation currently under the care of the LA in children's homes or with foster carers or were care leavers. Delivering an intervention Young women were considered eligible to participate as mentors if they met the following criteria: they were aged between 19 and 25 years; they had experienced the care system; they were deemed safe to work with children and vulnerable young people by having a satisfactory Criminal Records Bureau check (now referred to as the Disclosure and Barring Service (DBS)) Gender female
Exclusion criteria	Pregnancy
Sample characteristics	Sample size 13 semi-structured interviews were conducted with Project Co-ordinators, senior managers and social workers; Focus groups conducted during Phase II – five focus groups with local authority staff and two with looked after children; Interview with a university student from St George's, University of London. Follow-up interviews were conducted with 19 out of 30 (63%) participants from the intervention and usual support groups [n = 11 intervention (three from the pilot study), n = 8 usual support;
Relevant themes	Theme 1 Mentoring and increased mentee confidence - gaining a friend - Several of the mentees felt that having a mentor amounted to gaining a 'friend': "I feel a bit more confident about deciding – like making decisions . . . as a mentor, they don't really see you as a teacher to student thing, they see you as a friend, so somebody you can relate with, have just a talk, or just hang out with." Pilot mentee 2. One mentee had entered the care system as an unaccompanied minor 6 months previously. She spoke very little English and she had been nervous about meeting her mentor because of this. However, she reported that her mentor had encouraged her and helped her to feel more confident about speaking: "'When I want

	to say something and, you know, she could understand [my English] and she say to me “say it” . . . so yeah, I can say anything to her’" (LA2 mentee 2001). One mentee reported that she had felt confident about discussing her sexual orientation because of her mentor’s empathic and non-judgemental approach when they had first started to discuss sex and relationships: "She kind of taught me don’t let people judge me like, just be who I want to be. If they don’t like it then obviously they are not my true friends . . . I’ve gossiped about my sexuality with her, because I think . . . when I was younger . . . at the time I had a group of friends which was proper anti-gay and anti-lesbian, so I couldn’t really play on it. But now I’ve got older and I don’t really care what people say. I’m just me, if you like me, you like me. I’ve learned to open it and I’ve spoken to her about it. I think that’s the first time I actually spoke about it properly and actually decided like d’you know what? Actually I do like girls, and if you don’t like the fact that I like girls then you don’t have to be my friend." Pilot mentee 3. Another mentee described feeling more confident about asserting herself appropriately with boys, rather than just becoming angry, as a result of her conversations with her mentor: "Well she used to say to me, ‘you can’t always beat your boy up, you have to like let them look but they’re not allowed to like come to you, because obviously if you don’t want to be talking to them and you don’t like them, you don’t have to’ . . . I still hit them [boys], but I’m a bit kinder." LA1 mentee 1007. Another mentee felt that spending time with her mentor had broadened her mind and encouraged her to be more open, which had reduced her stress levels. At follow-up she believed that she was less likely to get angry with people: "I don’t know whether it’s just me growing up, or in a way . . . while she was there I think maybe I was like opening up myself . . . opening up did kind of release certain stress. Because I’m used to just bottling everything up, and then one day I’ll just have a meltdown and that’s when I’ll overdose myself. And that’s when I’ll go out and then I’ll sleep with like 10 different men or do something stupid, to harm myself." Pilot mentee 3 "Nowadays people could step on my foot and I’ll just blow it off, like literally because I think just life’s too short. And this time last year I would have probably got arrested for someone stepping on my foot because I would just turn around and get mad." Pilot mentee 3. Theme 2 Mentoring and improved mentee decision making - Mentees reported benefits from being able to engage in positive leisure pursuits with their mentor, including being able to make more positive decisions and ‘good choices’. For example, one mentee said that her mentor had helped her to realise that that she tended to be somewhat judgemental of other people, which had limited her social interactions and engagement. She had learnt that it was important ‘not to judge a book by its cover’ and to try to be a bit less judgemental, which had in turn begun to open up her social network: "It’s like if you see my set of friends . . . it’s like I need to stop – what’s it called? Not stereotyping . . . I need to stop having a type basically. Like because, to be honest, like my next-door neighbour she’s more into her jobs and stuff so I wouldn’t really be her friend because she’s . . . like they say a ‘nerd’ init? She’s more of a nerd and I’m more of I dunno, a problem, because it’s me that’s bad. So I wouldn’t really be her friend . . . so I think now I’m gonna start like making friends no matter what they are like . . . I should just be friends with everyone." Pilot mentee 3. Another mentee reported that her mentor had helped her to realise that she needed to broaden her horizons, which had previously largely been focused on impressing the opposite sex: "I think that it should be for most girls now in care, living by themselves – I think this would be good for them . . . because I know a lot of depressed people and I think they just need someone, not from the area, to take them out, to show them that, look, you don’t have to get ready, put on make-up and go meet a boy, it’s not all about that. ‘Cos that’s what I used to do. You don’t have to do that." Pilot mentee 3. Mentees also reported feeling more confident in being able to make the right choices in other important areas, including education and family life: "When I was younger, thinking I don’t care about my future, I’ve still got a long time to go, but then it comes quite quick and you’ve got to think about what you’re gonna do; so you should know from a long-off . . .’cos before I was choosing my GCSEs and like she was saying, ‘go for what you enjoy for’ and stuff so I went for that, I enjoyed what I was going to, like I hopefully want to go into . . . like when I leave school and get a job." Pilot mentee 4. "She tried encouraging me to see my family more and everything like that . . . it was just general encouragement to be honest. But there was a time where she said you need to take a step back because like my family problem was getting to like an extent that I couldn’t handle." LA1 mentee 1006. Theme 3 Mentoring and increased mentor confidence - The majority of mentors said that being a mentor had given them a sense of responsibility and had also helped them to feel more confident, in terms of their social interactions and when required to tackle new and unfamiliar situations. One mentor said that through having a mentee she came to realise that her anxiety in social situations ‘just means this person is new to me’ and was something that she could overcome (LA1 mentor 15): "I feel a bit more confident. Like before like, I’m not gonna lie, before if I used to see a teenager I’d be like oh my gosh, like what do I say to them . . . whereas now I’m a bit more like open. Like before I’d think, oh I bet they’re up to no good . . . whereas now I’m a bit more like, I wonder what’s going on for them, I wonder . . . how they’re feeling?" LA1 mentor 15. Another mentor said that she had applied that confidence to more practical challenges: "Whereas before I would, I would try and get someone else to ring for me, like, or, or even other calls like housing, I’d always try and get someone else to ring, ‘cos I’m not really . . . but from that [mentoring] like I had to ring the girl myself. Like I ring people now, like I’ll ring them and be like, I need . . ." Theme 4 Mentoring and increased mentor self-efficacy - A number of mentors talked about a sense of satisfaction in having been able to persevere with the mentoring in spite of things having been difficult. Pilot mentor 3 referred to how telephoning her mentee, organising meetings and encouraging her mentee to meet her had given her a new-found ‘sense of responsibility’: "I’ve learned how to interact more with young people and seen the difficulties that staff face when trying to get hold of the young people and stuff like that; ‘cos they are

	not very committed and not very consistent . . . But even myself I wasn't very consistent, but I learnt . . . I want to get more involved, like to build a relationship more, I want to see in the start and then finish" Pilot mentor 3 Theme 5 Mentoring and change in mentor attitudes - Improved attitudes and interactions with others were frequently attributed to the experience of mentoring, including the development of patience, tolerance and understanding and open-mindedness in speaking to younger people. One mentor explained: "It helped me to be more patient, because I'm so impatient . . . I'm still impatient but I'm working on it . . . I'm more tolerant now. Before I weren't tolerant. I'm surprised I didn't quit . . . it helped me now, in this job that I'm at now, the Children's Home, you know I look back and I think [mentee 1007]'s a saint, even though she's difficult . . . working with [mentee 1007] was a foundation of building my speaking skills a bit more, dealing with challenging behaviour a bit more and . . . having patience and being tolerant . . . try and get people to listen, you know try to, you know advocate, empower people to like change or whatever." LA1 mentor 4. Mentors gained an understanding that people have different needs, work at their own pace and, with support, must make their own decisions: "It's very difficult in terms of education because I've sort of been there, done that sort of thing and it's very hard for me to step out of the box and think this is her life and she's got to decide . . . and you've got to take it at their pace. Okay you might be an expert but they're an expert in their own sort of background and their own, whatever is happening in their life." Pilot mentee 1. One mentor talked about how her experience had made her decide to seek further experience, carrying out advocacy work with young people: "With pilots you know that everything isn't airbrushed out and . . . so it's not gonna be perfect . . . I think the positive that I can take from it is that it's made me even more eager to kind of get out there and do something, which was . . . kind of how I come across the whole advocacy thing." LA2 mentor 11 Theme 6 Factors affecting engagement - non-judgemental attitude - Because many of these young people were very used to being judged or criticised by others, the idea of having someone to talk to from outside their friendship or social network who would not judge them was very appealing: "I would have them [friends], but then I wouldn't talk to them as much . . . because they're close to me, so I wouldn't really talk to them . . . because I'm scared in case they judge me. I thought if I had a mentor they wouldn't really judge me 'cos they don't really know me." LA1 mentee 1006. Mentee 1006 valued the fact that her mentor did not simply tell her off or panic after she disclosed that she might be pregnant, but offered her help and practical advice to deal with the situation: "She tried helping me out saying do you want me to come [to a clinic] and everything. I was like okay. And then like I found out I wasn't [pregnant] anyway . . . it was really calm. Like if I told my friends, my friends would panic; they would be like 'oh my God, you're pregnant' da-da-da, they wouldn't, they wouldn't stop and kind of go you might not be." LA1 mentee 1006 Theme 7 Factors affecting engagement - active listening and advising - Mentees in the study said that they appreciated being able to 'offload' to a mentor and to feel that they were being listened to. They also appreciated that a mentor would only offer advice after listening to them and taking their views and concerns seriously: 'When I see her I get things off my chest and that. So it helps, a lot. Because I'm the type to not really say a lot' (LA1 mentee 1006). Mentees appeared to differentiate between talking to their mentor and talking to their friends or to an adult in a position of authority: "Cos she's really down to earth and she just says it how it is, like, she says it straight. Like, she don't use these big political words and stuff like that . . . She just makes me feel really comfortable, like I'm talking to one of my home girls. But at the same time she's not 'cos you know she has that professional side to her . . . it feels good." Pilot mentee 3 Theme 8 Factors affecting engagement - sharing personal experiences - During the training, mentors were encouraged to think about the aspects of themselves that they would like to keep private and those that they would be happy to discuss. Limited self-disclosure by mentors of personal information was often quite useful in facilitating difficult conversations: "I'll be like 'So tell me about your love life?' and then I just like mention something minor about mine or whatever, or 'mine's dead boring' and then I realise it makes her talk a bit more." LA1 mentor 4. "Because it wasn't just me opening up, it's not like someone's asking questions and I'm answering, it was both – like she'll tell me stuff about her current life and I'll tell her something about mine, so it's like we are both really trusting each other, and I saw that she trusted me, when like she told me stuff about her and her boyfriend and I think her son . . . so I thought okay, then I'll tell her stuff about me." Pilot mentee 3 Theme 9 Factors affecting engagement - Advocacy and signposting to support - An important part of the mentor role was the mentors using their knowledge and experience of the care system to support mentees with their issues in care: "And then we were talking about getting my passport done and she got in contact with my social worker and pushed him to do it – that

	got done." Pilot mentee 2 "I even said to her . . . advised her like did she know places like Children Right's Officer, things like that . . . 'Cos, honestly, myself, I never knew about all that, until, you know . . . when I start learning about all those services it was a bit too late really . . . I was trying a little bit just to put her into that, and say to her 'We can meet those kind of people, they can explain things to you if you don't understand'." LA2 mentor 9 Theme 10 Factors affecting engagement - Maintaining confidentiality - Mentees appeared to appreciate the fact that whatever they told their mentor would be kept confidential, but they also understood the limits of that confidentiality. It was also important that the mentor was located outside their usual social network in terms of facilitating disclosure of sensitive information: "It's good . . . because I know . . . things that I told her and if I told like my other friends – I'm not trying to say they will tell other people – but somehow it always ends up coming out – but I know for a fact 'cos she don't know no one that I know, no one that I know would come back to me and be like 'Well I heard she said this' because it can't happen . . . So that's why I liked her." Pilot mentee 3 Theme 11 Factors affecting engagement - offering new opportunities - Some mentees felt that having a mentor had given them opportunities to do new and exciting things or to have new experiences: "She's just so different. And like, you know whereas I'll wake up and I'll ping [call/text] my friend and be like, 'So what's the motive?' and she'll be like, 'Can we go link [hook up with] a boy' – she'll [my mentor] be like, 'Can we go shopping?' . . . I mean my usual group of friends it will be like a special occasion. Like for us [friends] to go ice skating it would be like 'oh my God we're going ice skating' but for me and her it will just be like 'Yeah, it's just ice skating'." Pilot mentee 3 Theme 12 Factors affecting engagement - Persistence - It was difficult to assess why some mentor–mentee pairs were able to sustain a relationship over a period of time whereas others fell by the wayside at a relatively early stage. Some mentors withdrew from the intervention when faced with a difficult or reluctant mentee; however, others remained enthusiastic and adopted various strategies to engage their mentee and persevered with the relationship: "I say let's do something different, but she keeps on wanting to go cinema . . . I said we can do other things you know? I go if you wanna go to a show or do you wanna do something that's involved with sexual health? Sometimes you can go [to a] clinic and book an activity . . . I said to her we could do ice skating. I go we can do anything; it can be sport – to get fit or whatever . . . It helps you find her a little hobby. But, no, she seems to just like cinema." LA1 mentor 4 Theme 13 Shared experience of care - The majority of mentees said that they would rather speak to a mentor than to their social worker about personal issues, as social workers were often too busy fulfilling statutory requirements to listen to them or to support them with emotional issues. At the end of the mentoring period, when the mentees were asked if there was any more support that they required, one said: "Having someone like her . . . a mentor that isn't a social worker, who I can talk to about problems, and then yeah, just to get a bit of space away – like with someone that's older . . . so she could give me advice." LA2 mentee 2008. Social workers also felt that they would be less effective than peers at engaging the young people in conversations around intimate issues, both because of the age gap and because they tend to be viewed rather negatively and mistrusted by the young people they work with: "I think it's really difficult for looked-after young people to talk to social workers. I think that although social workers are skilled in communication, I think they know that if they share too much information that social workers might have to act on that if they feel it's a child protection issue." This view was echoed by the mentors: "This is what I thought, 'Anyone who's working with me, they're going to report back to my social worker 'cos that's their job' . . . when I speak to a lot of young people they said the exact same thing." The majority of those aged 14–18 years (seven of the 11 who spoke about it) considered that it was important that their mentor had some experience of care, as it made it easier to relate to them: "Someone was actually in your situation so they knew what they've also been through and what you had been through, instead of saying 'Ah, I know how you feel' when actually they don't know nothing how you feel . . . it's like teachers say 'Yeah, I know what you're going through' and it's like, no you don't, shut up [laughs]." Pilot mentee 4. One of the mentors also considered that her experience of care had helped her to empathise with and build up a relationship with her mentee: "There was one girl that come up to me, and she was like 'I just miss my mum, I don't understand' . . . and she just broke down crying. One of the other members of staff she come over and she was like 'Oh it's alright, it's alright' and the girl flipped out. And then I went over and I was like 'Look, I've been there, I've come through now, like look at me' . . . and I kind of explained a little bit of my story without trying to traumatise her and by the end she was like 'Oh', she was like 'You went through that?' and I was like 'Yeah'. And she was like, 'And you're like this now?' and I was like 'Yeah' and she was like 'Oh'. And then she kind of went off and toddled and carried on." However, mentees also considered that it was important for their mentor to have a genuine interest in them and to support them, regardless of whether they had been through the care system themselves: "You're more likely to open up to someone who has been

	through what you've been through, but at the same time, she [a previous mentor] was the one who invested in my life the most, and you know, she came from like a really good background . . . and she had a lot to offer me." LA1 mentee 1009. Theme 14 Matching - Mentors and mentees tended to value having some common background or interests. Three pairs with a shared Caribbean background and one pair from Central Africa commented about the importance of this: "It's like when I was talking about my mentor having certain traits 'cos we're both from the Caribbean, like, it's like one simple thing. People might think, ok, so what? You're both from the Caribbean but it's just that certain factor, that, certain things we've both been through together. It just makes it easier." Pilot mentee 3. "She's just really good; she understands me . . . she's like Caribbean as well. And obviously I'm half Caribbean as well so we are like get on very well." LA1 mentee 1007. One of the mentors had attended the same college as her mentee, which they had been able to discuss. Another pair discovered a shared interest in fashion. Professionals also identified location as an important matching consideration, although one of the most successful relationships involved the mentor having to travel across London, from her university, to meet up with her mentee: "You think if people have got a gym, if the gym is right by your house 10 minutes away, you're going to go. If the gym means that you have to get a bus or train, you're not going to go." LA2 SW Theme 15 Information sharing - Overall, there was a consensus amongst professionals that mentors should be given any relevant information about a mentee that might impact on their ability to mentor that they should be alerted to issues that could potentially arise during mentoring. When this issue was discussed at a focus group, social workers were concerned about historical information about a mentee being disclosed, as the situation for the mentee may have changed. However, they also agreed that sometimes it would be in the best interests of the young person to share certain sensitive information with a mentor: "When you read some of our young people's files there could be something that happened, what 6–7 years ago, and you look at them and you just judge them sometimes before you've even met them. So sometimes it's better to not know anything." LA3 SW "I suppose, I was just thinking about one of my young people and I was thinking she's been sexually abused, and I just . . . wonder if somebody goes bowling in there talking about pregnancy and sex and all thoughts of things, they're not aware of some of the issues of the young people. How it might cause more harm than good." Theme 16 Preference for group mentoring as well as one-on-one mentoring - Mentors and mentees were asked for their views on the format of the mentoring sessions. Eight out of 12 mentors, as well as three mentees, expressed a preference for group mentoring in addition to one-to-one meetings. Mentors and mentees felt that group mentoring would accelerate the bonding process between pairs, encourage a more relaxed atmosphere and open dialogue, increase confidence, widen their social networks and encourage additional one-to-one meetings to take place: "I think what we can do once a month at least . . . have a meeting where both mentees and mentors come together; like you know at the [LA1 mentoring project] they come every single . . . you know Monday 5 pm – all of them in one place . . . once a month you all come in, you know and do an activity together . . . at least then you can guarantee that once a month they've actually met . . . and then from then onwards see whether it's actually going on, you know after that meeting . . . and if that doesn't work I think you should just make it to be that every single week they all come in – like you know how the [LA1 mentoring project] does? 'Cos they all come in, every single week. LA1 mentor 6. One of the mentors in LA2 recalled group meetings that she had participated in on the CiCC, which she felt would be a helpful model to adopt in the mentoring project: "In [CiCC] we used to have meetings once a month . . . when we meet we just sit around the table talking about everything concerning young people in care, law, everything. But when we speak about that we get to know each . . . even when we meet each other on the street, it's like . . . that's your family . . . we know each other for other things than the world outside, because we all come from the same background . . . so it's kind of our secret you see?" LA2 mentor 9. One of the mentors thought that a group setting would be useful for SRE and another felt that it would encourage mentees to engage with other LAC of a similar age, thereby increasing their social network: "I would like to do a group thing like and teaching them like sexual health . . . but they can talk about other stuff that's on their mind as well, 'cos er, a lot of teenagers do need that – as they tell me." LA1 mentor 4. "In a situation where she [mentee] is really happy and things are settled for her so she's not seeing you, so she's only using you for like crisis points, could we not all do something where we all met and then we all sort of know that we're all in a similar boat." Pilot mentor 1 Theme 17 Barriers to engagement - unreliability - Mentees would often agree to attend a meeting with their mentor but then would alter the time or place of the meeting, without notice, or simply fail to turn up. Reasons given for not turning up included too much school work, seeing friends and 'bad weather'. This led to some mentors themselves feeling let down and demoralised: "I initiated contact and I spoke to her, everything seems fine, she was willing to meet me and everything. But when it comes to meeting up it's . . . either she cancels or she never shows." LA1 mentor 20. "You do get young people that will be like yeah yeah and that meeting would be their number one priority and then someone else, like a friend will

	come round oh let's go here so, it will always just change." Pilot mentor 5. One mentor said that she ended up feeling 'like a teacher trying to find a, you know a primary school kid, chasing them around the playground' (pilot mentor 2). Even when mentees were not required to travel far to meet their mentor, they were often unmotivated to make the effort: "'Cos sometimes like I'll have one of them lazy days when I'll just . . . don't want to go nowhere and I just want to stay in my house and . . . It's like if she came to get me – I know it sounds lazy, but if she came to get me then obviously I wouldn't mind going, but I don't really . . . I like travelling but sometimes I don't." Pilot mentee 3. To address the issues of non-attendance, mentors usually had to go to where their mentee was, rather than expect the mentee to come to them. As some young people said that they did not like having to engage with social workers, it is perhaps unsurprising that one of the barriers to engagement was the mistaken belief by mentees that the mentors were part of social services provision: "That made me feel like oh maybe, they don't want to meet us, because for myself I know like sometime[s] you don't really want to talk to someone . . . they were all scared . . . maybe they thought like we were part of social services." It is perhaps not surprising that mentees find it difficult to build up trusting relationships and are likely to regard any new people introduced into their social orbit with a degree of suspicion, particularly if they themselves have not chosen them: 'It takes me a while to get close to someone and become friends with someone or, until I trust someone. I thought it'd be hard for me to do that' (LA1 mentee 1001). Pilot mentee 3 started off from a position of mistrust and suspicion; however, her position later started to shift, particularly in response to her mentor disclosing information about herself: 'I will never fully trust someone innit, but I do trust them to a certain point – but you can never really give anyone your full trust can you?' (pilot mentee 3). It may be that the mentees in those relationships that did not last long, or that were inconsistent, never got to the point of trusting their mentor enough to be able to talk about things that were important to them. Even when a mentee appeared to have engaged well with a mentor at one meeting, this did not mean that they would necessarily turn up for the next one, which often left the mentors questioning their judgement and whether they might have done or said something wrong: "I mean on the first day she was quite open . . . 'cos we did have some sort of similarity in terms of education 'cos she went to the same college as I did. So I mean from the word first go I mean we was chatting from start to end. That's why I think she felt comfortable . . . but I think, the problem is . . . It's just about getting her here . . . I mean I've told her many times I don't mind going to obviously where she [lives] . . . it's just about obviously getting that time. 'Cos when we did get that time it was quite nice." Overall, non-engagement of mentees appeared to reflect their ambivalence about the intervention. The researchers also encountered a lack of motivation and 'mixed messages' regarding engagement and often had to rearrange meetings with mentees after they failed to show up, without providing an explanation or an excuse. One PC expressed the view that LAC may find it hard to express their opinion about whether or not they want to participate, possibly because they feel so disempowered, and so they end up voting with their feet, by not turning up or not responding to phone calls. Some mentees may have found the mentoring encounters too anxiety provoking and therefore withdrew, or they may not have appreciated the importance of not letting other people down. Professionals also considered that these young people may experience difficulties in planning ahead and organising, or taking control over their lives, so that if something better comes along they will simply go with whatever seems easiest. **Theme 18** Barriers - personal lives and mentor committments - Some mentors acknowledged that, despite their best intentions, personal and work-related issues impacted on their ability to fulfil commitments. Mentees reported that mentors did not always communicate with them when other commitments made it difficult for them to keep up with their mentoring role: "She said she is busy in Christmas and everything and I was like ok, just contact me like when do we want to meet and stuff, and then after there was no contact for . . . a couple of months and then yeah we got back in contact again and then she was, she just kept saying oh it's busy and everything . . . and then afterwards, yeah, we was in contact and then it just fell back again" LA1 mentee 1006. One mentor failed to inform her mentee that she had a job interview and could no longer make the arranged meeting. This frustrated her mentee who, when asked for her views on what an ideal mentor should do, responded 'just turn up'. Many LA professionals expressed concerns about the vulnerability of the mentors and the extent to which they would be able to separate their own issues from the mentees' issues. Some of them also had to deal with family issues, domestic violence and/or mental health issues. Moreover, a number of the mentors were juggling other commitments during the mentoring period, including college, work and childcare responsibilities: "With any study that you do, when you're working with looked-after young people, it's whatever's going on for them is gonna always take precedent because that's how they've been growing up; you know because they are in the care system." LA1 PC1 **Theme 19** Problems - managing money and diary entry - Although there were several examples of mentors who fulfilled the responsibilities of the mentoring role, there were a greater number who, in some form, breached the terms in the mentor contract. Issues included not collecting receipts for money spent, running up large phone bills on calls not related to the project and keeping money for their own use: "I know that she wasn't spending all that money on that 'cos I was getting the receipts and like I'm thinking look at this baby stuff on it . . . I was like 'did you actually go out with your young person?' [she said] yeah, and then she was like but I forgot the receipt, so I just gave you one that I had." LA1 PC1. In one case a mentor confided in her mentee that she felt irritated that other mentors were spending money on themselves and not spending it on the mentees. The mentee believed that this was 'out of order' but was also content in the knowledge that her mentor 'would never do that'. In relation to excessive phone usage, the PCs felt that it was difficult for them to challenge the mentors about what had occurred and, without proof of any wrongdoing, they were reluctant to take action: "And if it turns out that actually I get the bill and it's like 'hang on'– right? . . . there's a mismatch here right? Then that's a different conversation yeah? . . . but without evidence . . . I'll ask the question and I'll challenge and I'll look at you hard – but if you're

	sticking to your guns what . . . where's my proof?" Anecdotal evidence suggested that one or two mentors were attending the support group meeting solely for the purpose of collecting vouchers as a reward for their role, even if they were no longer making attempts to meet regularly with their mentees: "Some of the mentors – I think they know the loopholes of the whole mentoring programme . . . they know that every single month PC1 is going to send a text saying, 'Ladies, let's meet up soon', as long as they say 'oh I've been trying to call, they haven't picked up', PC1 will say – you know, she'll say why haven't you done this, why haven't you done . . . but after that they'll still get their payment, and that's all they want – really and truly." There was a clear indication from social work professionals that, when mentors were not fulfilling their role, they should not receive the full £40 voucher payment. Yet, in LA1, the PC took a more lenient approach: "I never did tell them they couldn't have their money . . .'cos I do think there's a conflict of interest. Because they will, no matter what they'll take it out on you. You know, and I've got to continue working with them after the study has finished. So I just gave it to them, but for me it's about working with them to empower them to do their role . . . it would be different if I was running it. If it was my project . . . I would tell 'em straight, you know, 'you're not getting paid if you're not doing your work'. But you know, it isn't my project." This PC acknowledged that 'they all knew what they were doing wrong . . . and all said what they had to do, and they all did nothing'. Only two of the mentors made regular diary entries, despite weekly text message reminders from the researchers. LA1 PC1 noted that, apart from the monthly support group meetings (which some mentors did not attend), she lacked information about how often mentors were seeing their mentees and this made it difficult to impose penalties. The PCs and one mentor thought that it would have been helpful for data from the diaries on the frequency of contacts to be made available to the PCs and that they should give the full voucher payment only to mentors who had completed the diary. Theme 20 Barrier - Dual role - motherhood and peer mentoring - Five out of 10 mentors who met with their mentee had a child and most of them were single mothers. For the majority of mentors, childcaring responsibilities had a negative impact on their ability to give time to a mentee: "I wouldn't have minded to see her continuously 'til it finished, but it was literally just that I had so many things to do, for myself, being a single mum which was a bit difficult. Yeah, I think that was the most difficult thing." LA1 mentor 18. "She had a child and she had her job to do as well, so it kind of depended on both of us, and it's like most of the times she'll be busy when I'm free and then when I'm free, she'll be busy . . . and even in phone calls I will hear how busy she is with her child, so it's like sometimes I'll have to be like, 'D'you know what, deal with your family and then ring after or call tomorrow or something'." Pilot mentee 3. Theme 21 Pre-requisites for the peer mentor role - In LA3, where professionals experienced difficulties recruiting mentors to the study and retaining them, professionals believed that care leavers needed to have sufficiently 'left the system' to be effective mentors: "It's far too early and life events are still happening for these 18-, 19-, 20-year-olds you know? And I think, you know, even beyond 25 we're still asking quite a lot for somebody who needs to establish themselves. Chronologically they're not the age we think we [they] are, you know, with our teams. I don't think those young people are where they should be yet and I think it takes a lot of life and a lot of sorting out to get to a place where you do feel comfortable about a 13 – or whatever age – coming at you and asking very difficult questions." The PCs in LA1 and LA2 believed that care leavers should be given an opportunity to mentor, despite the difficulties highlighted earlier. However, they were clear that, in a future study, PCs would require additional time to work one-to-one with each mentor to ensure that they had the required skills to fulfil the mentor role and to explore their ability to manage their time and emotions over the mentoring period: "At the entry point, we need to really be firm in terms of their availability and getting them to think about even looking forward, about the possibility that may have certain things, like courses starting, movement – they might be going through a transition stage, 'cos of moving, etc. Looking forward, there's a number of things that maybe, I think we need to consider in terms of what could possibly change that mentor's circumstances." LA2 PC1. Theme 22 Safety concerns - boundaries - Local authority professionals believed that there was a potential for boundaries between mentor and mentee to become blurred, unless they were well defined by the project and monitored by the PC: "was in a meeting and they were setting up a meeting of her and her mentor and swapping telephone numbers. And I sort of asked well are there any sort of boundaries around the relationship and it didn't seem as if there . . . they had talked about boundaries, but it didn't seem as if there was any clear kind of guidelines around that. Although some professionals had expressed concerns about mentees becoming over-reliant on their mentor, there was no evidence of this or indeed of any inappropriate or excessive contact. However, because of the rather chaotic nature of some of the mentees' lives and their difficulty with time management, some mentees appeared to expect their mentor to be able to drop everything and see them at a moment's notice, rather as a friend would do: "You know she doesn't plan. She keeps on calling me up last minute, like 'Hey girl how are you? Yeah, d'you wanna come and meet up?'. . . 'I'm busy' I said to her and I go, 'I have a very busy schedule' and everything has to be planned with you I'm sad to say." LA1 mentor 4

	Theme 23 Safety concerns - disclosures - Mentors were told during their training that, if they had any concerns about the health or welfare or safety of their mentee, they should immediately pass on the information to the PC, after first informing their mentee. Some professionals thought that mentors would find it difficult to make decisions in relation to sharing information, because of the potentially damaging effect that it could have on their relationship, and that they would need a lot of guidance and support around responsible information sharing to ensure that the best interests of the child are met. However, within this study, a number of mentors were able to report concerns to the PC without this impacting negatively on their relationship with their mentee. Theme 24 Safety concerns - unsupervised meetings - Many professionals expressed some concerns about meetings being set up between vulnerable young women, without supervision or without sufficient communication between professionals in the mentee’s network. In one focus group it was suggested that allegations of misconduct could be made against a mentor by a mentee. However, the main risk identified in the exploratory trial was of mentors failing to inform the PC where and when they were meeting with their mentee, which was in clear breach of the mentor contract. LA1 PC1 admitted that only one of her mentors regularly informed her of when and where she was meeting her mentee. Theme 25 Undesirable effects of the mentoring intervention - For some, particularly when relationships were inconsistent or ended prematurely, there was the potential for the intervention to be harmful to the mentee. One mentee (1001) lost her first mentor, who dropped out for ‘personal’ issues’, and had to be allocated to a different mentor, who also failed to see her regularly: "It made me feel a bit upset and then like it did make me sometimes feel like, I didn’t see the point in me doing it; I just felt like giving up. ‘Cos I’ve had two [mentors] and they haven’t really worked out so well. But then, it kind of questions me, like maybe it’s something I’m doing wrong." LA1 mentee 1001. During training, mentors were told that if they were unable to continue a relationship they should make sure that their mentee did not blame herself or feel responsible for the failure of the relationship. However, this did not happen in the case of mentee 1001. Local authority 1 PC1 said that, although she would not go as far as calling the process damaging, because she could ‘rectify some of the stuff’, she was concerned about the consequences of having an unreliable mentor for vulnerable young women and, in this study, for mentee 1001 specifically: "When someone says they’re gonna see you, they need to see you. And when someone like mentee 1001 – she was really upset with this whole process and so basically the stuff going on in her brain – it stopped firing." Apart from this case, in the main, mentees appeared accepting of infrequent contact and/or unreliable mentors, possibly because this represented a repetition and re-enactment of past experiences of rejection and abandonment that they had come to anticipate. Several mentors also admitted feeling frustrated or let down when their mentee failed to turn up to meetings or show sufficient acknowledgement of their efforts. One mentor found it difficult that the other mentors had been successful at making initial contact with their mentee whereas she had not: "liked the challenge of it but the thing I got really annoyed about – I don’t know if annoyed was really the word – is that I knew I could help if given the chance for her to receive my help d’you know what I mean? ‘Cos I’m . . . it’s like fighting with a wall really – that’s how I felt like. I felt like okay I could really help her but if she’s not willing to meet me halfway then I can’t really help." LA1 mentor 3. Theme 26 Undesirable effects of the mentoring intervention - Professionals were concerned that the study could bring up difficult feelings for mentors and that the mentors were not being provided with adequate support to help them deal with these feelings. Many sensitive issues were covered in the training, which also encouraged reflection on personal issues. One participant admitted to her group that she had drunk a bottle of alcohol because she felt overwhelmed by the discussion the previous day. Another mentor said that meeting her mentee, who was experiencing similar issues to those that she had faced when she was younger, had reminded her of her past, but that she had been able to ‘deal with it’ by seeking support from the PC. Local authority 1 PC2 reflected that the study had enabled some participants to come to terms with their past: "Volunteering for the Carmen project, it made her re-evaluate her own life . . . it’s thought-provoking, it has allowed young people to do the reflection, reflective stuff. A lot of them weren’t able really to tap in to that emotional need and then sort of articulate that to worker . . . But I’ve seen the change, and it might have only been a tiny change. For one particular person . . . it’s had quite a massive impact, she’s going back to university, and she’s actually going to do the therapeutic work. Because she suffered sexual abuse, horrific sexual abuse . . . she’s started to talk about her experiences, her experience of violence, of being raped, sexual exploitation . . . And I truly believe that if it had not been for this project and her involvement, we had always guessed that something had gone on for her but we did not know to what degree." LA1 PC2

Study arms

Peer Mentoring Intervention (N = 11)
Mentor selection. Individual qualities most likely to be associated with being a successful mentor were being non-judgemental, empathetic and a good listener, being able to act as an appropriate and positive role model, being committed and able to meet the demands of the role. Local Authority (LA) staff were asked to select young people who they felt were appropriate based on these criteria and professional knowledge. Project coordinators (PCs) were asked to ensure that there was enough time for DBS checks to be completed on potential mentors. Mentor training. In spring/summer 2011 the research team met with National Children's Bureau training staff and managers to discuss and finalise the content of the 3.5-day mentor training course. Key aspects to be covered during training were the expectations of the mentoring role, confidentiality and safeguarding, maintaining boundaries, facilitating help-seeking behaviour and dealing with difficulties. Because of the lack of consistent evidence on attributes that mentors and mentees should be matched on, PCs were advised, as a minimum, to match mentors and mentees on the basis of geographical proximity. A 5-year age differential between mentor and mentee was specified, on the basis that mentors might experience more difficulty in maintaining an appropriate emotional distance in the relationship if they were too close in age to their mentee. The PCs were given responsibility for recruiting mentors and mentees, managing the contacts and providing support to mentors through monthly group meetings. PCs were asked to commit a minimum of 3 hours a week to the role. Monthly support group meetings with the mentors were created for the purposes of monitoring relationships, identifying concerns, giving out monies for activities and identifying additional training needs. PCs were asked to facilitate a three-way meeting with the mentor and mentee at the start of the intervention, to ensure that the aims, roles, responsibilities, length and boundaries of the relationship were clearly understood. Mentors were asked to spend at least 1 hour of face-to-face contact time per week with their mentee over a 12-month period. They were also encouraged to contact their mentee on an ad hoc basis, by telephone, e-mail or text message. Mentors were advised to give mentees the number of the mobile phone provided to them by the research team, rather than their personal contact details. They received a monthly stipend of up to £40 a month to pay for any leisure, social or other activities with their mentee and to cover travel expenses. In relation to the intervention’s primary outcome, reducing teenage pregnancy, mentors were asked to discuss issues relating to sexual health and relationships when they felt that this was appropriate or if raised by the mentee. Mentors were advised to encourage their mentees to seek help for troubling issues (e.g. sexual health, substance use, criminal activity, mental health) using knowledge of local services or by asking professionals and, if required, to accompany their mentee to any subsequent appointments. Mentors were asked to end the relationship in a carefully planned and managed way, to ensure that the mentee was clear about the length of the relationship from the outset and to ensure that the mentee was able to identify a support network post mentoring relationship. Towards the end of the mentoring period, mentors were asked to identify any additional or unmet support needs for their mentee and to discuss these with the PC.

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes
Data collection	Was the data collected in a way that addressed the research issue?	Yes *(Saturation of data not discussed)*
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Yes *(However, unclear that researchers critically examine their own role, potential bias and influence during analysis and selection of data for presentation)*
Findings	Is there a clear statement of findings?	Yes

Section	Question	Answer
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and directness	Overall risk of bias	Low
	Directness	Directly applicable

Tullberg 2019*

Bibliographic Reference	TULLBERG, Erika; et, al; Unpacking "support": understanding the complex needs of therapeutic foster parents; Children and Youth Services Review; 2019; vol. 105; 104420

Study Characteristics

Study type	Focus Groups
Aim of study	To explore different aspects of the experiences of TFC parents, identify multiple ways in which they need support, and provide recommendations for foster care agencies looking to retain skilled foster parents and increase the quality and stability of children's experience in TFC programs.
Study location	USA
Study setting	New York City Atlas Project TFC programs

Study methods	Each foster care program assisted in the recruitment of participants through dissemination of flyers and provided facility space in which to host each group. Focus groups were loosely guided by a semi-structured protocol designed to elicit feedback from participants in three broad topic areas: (1) relationships and communication with foster care agency staff; (2) tools and training; and (3) mental health services and clinical care. Groups were moderated by an experienced independent qualitative data consultant and facilitated by the Atlas Project's Project Coordinator, an ACS employee, who also served as note-taker. All groups were audio recorded and each group lasted approximately 90 minutes. Data were analysed using thematic analysis. This method of analysis was chosen because it provides a flexible and useful research tool, free of theoretical constraints, that lends itself well to working within participatory research paradigms. To ensure rigor, two authors independently reviewed content and reached agreement via discussion on the major themes.
Population	Treatment Foster Carers
Study dates	Not reported
Sources of funding	The Atlas Project was funded by the Administration for Children, Youth and Families and Substance and Mental Health Services Administration.
Inclusion Criteria	Carer situation TFC foster parents at each of the six participating New York City Atlas Project TFC programs
Exclusion criteria	None reported
Sample characteristics	Sample size 75 treatment foster carers Carer characteristics Experience ranged from new to 28 years

Relevant themes	Theme 1 Teamwork - TFC foster parents asserted that 'teamwork' with foster agency staff and other service providers was the key to working most effectively on behalf of the children in their care. Participants acknowledged their role as a TFC foster care parent as a "challenging" one that required an enhanced set of skills. Said one participant, "you have a lot of regular foster parents that are not equipped to meet that need so that's why [the children] are being pushed up to therapeutic … cause not all foster parents can handle that situation." Given the challenges of providing care to children in treatment foster care, TFC foster parents across groups repeatedly emphasized the importance of developing strong care teams founded on relationships built of mutual respect and characterized by consistent, clear communication. Participants who expressed satisfaction with their care team were positive about their roles. They felt included in decision-making around their child and were routinely kept abreast of important information: "The worker and the sociotherapist [work together] so I won't be bombarded with different people at my house every day. Try to come at the same time. We have a good relationship. They come, they laugh, sometimes they spend more time than they are supposed to, cause we're joking around. Then we get down to the point. We write down everything, makes sure everyone understands, including the child. [She] writes down everything that is expected of the child [and everyone gets a copy]." 'Good' caseworkers embraced TFC foster parents as part of the team and valued "work[ing] together." Participants even expressed the desire to train with caseworkers "… at the same time, so we know how to confront and we know how to handle the problem as a team, not as an individual." Describing the process, one parent said "It take[s] a village to raise a child … you know when people's hearts are really in it and there are people whose hearts are not in it. It's all of us [not just the foster parents]. Cause we [staff and TFC foster parents] supposed to do this together." The importance of respect, engagement, and clear communication was also evident in TFC foster parents' relationships with clinicians, and their belief in the efficacy in mental health treatment overall. Participants satisfied with their child's mental health care routinely referenced the benefit of therapy for their children: [The therapist] documents everything, they have a good relationship, they open up to [their therapist] and everything. Good communication. What works is the therapist and me sit down going over all the behaviours and bring that child into the conversation afterwards and then putting down consequences, so the therapist is aware of what's going on so that they can talk to them using a bird's eye view. They can then explain consequences that come as a result of behaviour – as agreed on by therapist, foster parent, and child. So we're on the same page. Conversely, participants who described poor relationships with foster care staff and mental health professionals cited poor communication, illuminated by behaviours such as last-minute cancellations of visits or meetings, and ignored messages and calls. They perceived information as being guarded, as opposed to shared, and felt left out of decision-making around their child. These participants also described feeling a lack of respect from staff and/or clinicians who privileged academic "knowledge" over "the experience that counts, the practice that counts." At times, TFC foster parents even feared retaliation if they expressed concerns about situations in the home or about their relationships with staff: When you [talk to] the supervisor or the social worker on the phone, you have to be careful about what you say. Because sometimes they will take what you say and turn it around [agreements from members of group] and basically start 'blackballing' you. Cumulatively, experiences such as these left these participants feeling frustrated, unsupported and, at times, unsure how to handle difficult situations. They did not feel a part of a team, but on their own, including during times when children's behaviour was escalating: I mean I've seen the worker ease out. They see the kid ready to go off, and they like they forgot their water bottle. See you later. If you need any help … they are walking out the door. One participant with many years of experience as a therapeutic foster parent believed that the only way to ensure successfully, mutually respectful relationships between team members was when that expectation came from the agency's leadership: "I think the agency is changing because it is under new regime … in retrospect there was a culture of foster parents and case workers, times have changed so drastically. And I felt that they felt they were more educated than the average foster parent so there was a condescending arrogance that permeated their status so subsequently there was friction … you know they didn't respect the foster parents, they didn't respect the fact that we were carrying the weight, the entire weight, and without us they wouldn't have a job, if truth be told. So when I came here and the current person came on board, he's trying to somewhat mend the fences … because he understands that past culture, he's trying to mend the fences between the foster parents and the case planners … he wants them to recognize that they're not the be all and end all [several members of the group murmur agreement], that we hold a very important part in this picture and that they have to respect us whether they like it or not and I think a lot of it came from the fact that they were overworked … a lot of cases was thrown on them … they were dumped on, so we were the ones that they dumped on, but that is coming to an end." Theme 2 Support - Focus group participants desired various aspects of support they sought from both their foster care agencies and their peers. Perhaps surprisingly, support was not seen as a one-way street; participants also felt that, given their extensive experience working with children with complex needs, they were in the position to, and wanted to, support their caseworkers for the benefit of the children in their care. - Support from the agency - Participants across groups repeatedly discussed the importance of agency support in their ability to maintain children in their home and their overall feelings of satisfaction with their role. TFC foster parents described several ways their agencies demonstrated support (or the lack of it). Agencies provided professional support by giving TFC foster parents information about their child prior to placement, helping TFC foster parents obtain services for children in their home, and providing

	TFC foster parents with specialized training that addressed the more complex clinical needs of children in TFC programs. Agencies could also provide emotional support, via their staff members, when there was conflict with a child in their care. Theme 3 Providing information on children prior to placement - Across the focus groups, many participants raised concerns about not having information about new children prior to placement. This was a particular problem for TFC foster parents due to the complex nature of many of their children's histories. Groups were replete with participants' experiences of taking placements without information about the behavioural, emotional, or medical health needs of children: "When I got my child, they did not tell me the severity of her. I had to find out by me asking questions. I got her straight from [the hospital]. And I went to [the hospital] a couple time to visit her to make sure we was a match and I had to ask the doctors what's her diagnosis, what's her problem? And she's 6 years old, suicidal, tried to stab the teacher – what if she feels that way around my daughter? So I had to think and build her trust and build my trust, but I learned this from me dealing with her. Sometimes when a child is coming from [the agency] … they don't come with no information for the child … one situation we was going on a trip and the child was pregnant and we didn't know nothing about it … we was going to water rides and we didn't know nothing." "A child had medication in their hand and we didn't know nothing about it … a meeting happened a week later … that she supposed to be on medication … nobody never told us that the child supposed to be on medication." TFC foster parents described the challenges of balancing the needs of their overall household with the needs of children in their care, especially those with dangerous, threatening, and/or other disruptive behaviours. Some suggested foster agencies deliberately withheld initial information to make a placement appear to be a good fit. In one exchange between participants, one advised another against accepting placements without "paper": Then don't accept that child, 'cause you know that child has much more problems than that. Don't do it. It sounds so beautiful— I say – give me the real deal on this child. They say 'okay well this child starts fires and has bedbugs' – I say heck to the no, are you serious? No, absolutely not. At times, these 'partial truths' led to disruptions in placement and frustration on the part of TFC foster parents when team meetings only occurred after the fact, when they wanted a child removed from their home: "They don't tell you all the story, you find out from the child little by little what's going on … then when you want to have that child removed from your home … they tell you, you have to have a meeting with ACS … I said to the worker, I didn't have a meeting with ACS when you brought him to my home so why should I have a meeting with ACS to remove them from my home?" Theme 4 Obtaining services and resources on behalf of children - Some TFC foster parents, especially those who were new to therapeutic care, did not feel that they were being given the resources that they needed by the agency in their new, more challenging roles. Said one participant; "Since I've been in the therapeutic division, there's been no support; little to no support." Another said, "I don't have the help I was told I was gonna get." Half of them [caseworkers] don't even know how to get kids the services they need … this is serious if you have a kid that needs special care the caseworkers doesn't even know how to service the child and then you have to do the homework for the caseworker and then they disagree with you and they are making the wrong decisions. …" Theme 5 Providing access to specialized training and professional development. - TFC programs also demonstrated support by providing specialized training and professional development. "Training … even as a therapeutic foster parent … it's an ongoing thing. We're still learning. It's a process for us, it's a process for our case planners … we deal with children with a lot of different diagnoses." The value of trainings was enhanced when knowledge and skills were reinforced within the care team, for example, during weekly visits from the child's in-home caseworker. One parent noted the reason she was able to work with the children she did was because the agency provided "a lot of training" and they made it easy for parents to access "if you can't come to the agency, you can do it online." In some groups, participants brainstormed about types of training they wished they had to better address the special needs of their children – they bounced ideas off their group-mates and discussed issues of concern – one parent suggested training around issues related to child development, such as sexual health, and the safe and appropriate way to handle these types of discussions with TFC children. One participant commented "it can be uncomfortable…for me…I need training for how to [talk about these issues]." Another brought up hygiene. "How do you tell them to clean themselves properly? You can't sit there with them, you can't be there alone in the bathroom with them … I feel like they should have a class for the kids where they can go over [this] … if it's your own child, you can show them how to wash themselves so when they are of age, they can do it themselves." With these children, "it's difficult cause it's what they learned, and you don't know exactly what they were instructed." Another agreed: "you'd expect them to know that – but [for some] how would they know?" Other suggested topics included trainings for diagnoses like autism, health conditions in teens, like diabetes and sexually transmitted infections. Those

	who did not believe their agencies provided enough specialized training were willing to obtain it from other sources; one participant said that "in terms of certifications and trainings, I go outside to ACS," while another said "I'll go on the internet and find my own classes." Theme 6 Emotional support during conflict - In most of the groups, TFC foster parents described situations in which they felt staff members did not support them when there was conflict with a child in their care; at times staff were described as siding with the child during such conflicts, and at other times they were described as being absent and unsupportive: "We should sit down and speak with the child … I've found that some of these workers are afraid, they want to agree with the child [general agreement murmured in the group, "want to be their friend"] … you're creating friction." "The worker gets to be friendly with the kids and they don't care about what you going through … cause they only see the kid for 10 minutes, 15 minutes, an hour at most … we have the kid all day … when they see the kid, the kid telling them this and that, that's not true – that is not true. [Another participant comments "There's two sides to the story."] But they don't care what you say … they just try to tell you lean more this way, lean more that way but it's really hard when these kids, these teenagers, I have teenagers, are out of control, they want to do it their way, they want to set the rules in your house, and you have to do what [the teenagers] say." "When I first came to the agency, I was new at foster care period… The older workers, the ones that been here for years … they know how to play, how to write the notes, to say that they've been to your house when they haven't been… so they was telling me they didn't have to come as long as [the behaviour specialist] was coming, they didn't have to come and we ran into a lot of friction because a lot of stuff was going wrong in the home and I didn't know what to do because I was new to it … I was talking to the behaviour specialist at the time, she really helped me and got me through it … really guided me through the process and once I learned you know I was like, 'oh no, you can't do that,' because they used to threaten me 'oh I'm gonna close your house, you can't do this, and you supposed to do this,' and I'm like, 'what did I do? I didn't do nothing wrong' … and some of those people are gone because of what they were doing, it finally caught up with them, but I really had a rough time." TFC foster parents who felt supported by their agency during periods of conflict described the things their agency did to make it easier for them to maintain difficult placements. One TFC foster parent said her agency did "everything" from setting up needed appointments with therapists "right away for the child" to picking up things at school. She reflected: "I feel like they are there for me … it's really important because sometimes you feel overwhelming … some kids, you feel like, 'what am I going to do?' – but you have phone numbers for everything." Theme 7 Peer support - The ability to connect with their peers was something many participants considered integral to meeting their needs for camaraderie and support: "as foster parents we should all be together, we need to bond somewhere." One parent angrily decried the idea of support from the agency (to applause from her group-mates) and emphasized the importance of peer support: "What assistance (referring to the agency)? We think we gonna come in here and lash out our feelings. Cause this is all we have …this is our support, right here." Participants wanted their agencies to provide them with social and emotional support in a safe place, where they could talk openly with other TFC foster parents about their feelings and discuss challenging issues they believed their agency could not—or would not—want to address: "When we're under investigation by ACS [for alleged maltreatment against a foster child] who do you reach out to? They (people at the agency) don't want to talk to us. It's your first time going through it, you don't know what's coming at you, I think that's the worst. Unless you know another foster parent going through the same thing, that's the only support you have. Some TFC foster parents suggested that this peer support should be provided in a more formal form—such as having an 'advocate' to provide them with an official voice within their agencies: "We do need a advocate … I don't think a worker's gonna be a advocate … I think it has to be a foster parent who knows exactly … what's going on, what we deal with because most of these workers don't have foster kids in their home. They have kids but they not foster kids." Another described reaching the point where she was ready to leave the agency, then finding the strength to talk to a "high-level staff person" at her agency, and telling that person: "I want you to consider this, for us, the foster parents, when you have a chance … want to tell you the frustration [we] feel … we have no support… we need the voice for foster parents, we need [an] advocate ... We need that person you go to and they address any concern or anything and they keep it, like you say, confidentiality, so things can go better …a lot of agencies DO have an advocate for foster parents." Theme 8 Support of others - This theme of 'support' was not simply reflected in the direct needs of TFC foster parents themselves; in some cases participants also expressed empathy for caseworkers, many of whom are new to the field. A few parents believed through advocacy they could and should take on the challenge of addressing issues like worker burden. One parent described this by saying: "When we have new social workers … [the] problem come because there is not enough staff members … the staff is too weak, the caseload is too much for one person. Those social workers, they have to write up notes, they have to follow-up this, they have to make sure the dots are in place. This is a job…if you have a social worker and the social worker have 13 kids to look after, this is a lot. So, the caseload, we have to advocate for them to have a smaller caseload. Others described supporting new caseworkers as they

	transitioned into their roles: "I've had one or two caseworkers who I think were too wet behind the ears, you know, they weren't experienced enough, I think they should have been followed with someone, someone should have walked them through for the first two or three weeks, before they were sent out on their own, but when I realized that, I kind of step back and not really pressure them too much because we've all been in situations where we're new and we don't know what we're doing … have to give people that time to grow and to become familiar with their new territory." "The new ones, they need to learn. They not really trained with these children, so they have to learn … When the young social workers come, they learn from us … if they come high up here they won't learn. [Discusses specific caseworker:] If you see someone humble like [this caseworker], you extend yourself and they will learn and you will learn from them because there are things they know that we don't know. [It] doesn't matter that they cannot handle sometimes rough situations, but they know things that we don't know and we have to work together to make this work." **Theme 9** Transitions - Consistent across all groups were reports of frequent and, sometimes, destabilizing transitions in the form of staff turnover or staff changing positions within their agency. As a result, participants widely agreed that strategies for managing transitions should be included as part of staff and foster parent training, and that additional resources— both for children and for themselves—were needed during periods of change. **Theme 10** Need to prepare and assist children through transitions - Concerns about staff transitions focused primarily on the impact of transitions on the mental health of children; "every time you turn around they are changing caseworkers on them … and then they feel like they just tired of them." Participants emphasized the toll repeated transitions could take their children, but most said agencies did not prepare them adequately for changes: "[Describing the child's questions:] "Why would they change my therapist, I love her … Are you and poppa going to leave me too?" "It bothered him. He was like; 'This is my third worker in six months.' So it really, really done something to him. He was really close with this worker and I don't think it's fair for the children. Kids have to get used to a new worker all over again … get adjusted … and that kind of angers them too … different foster home, new caseworker … no stability … because of what they been through." More than one participant reported addressing transitions by telling their child to focus more on the stability of their (parent-child) relationship than the one with his/her caseworker: "Children get past that quickly, if we can get past it quickly … I teach my kids – 'the workers can come or go, you're with me' you have to rely on me, we have to have a bond. If we don't have a bond, no matter what the worker's telling you it won't work, because that worker will probably, eventually leave … so we have to be on the same page.' That's one of the ways I deal with the workers changing. Other participants, however, described frequent transitions leaving children feeling increasingly hostile, as the experience of system-related losses were left unaddressed: "I have this child and it took her a while to get an attachment to the worker and as soon as it happened, he left. Now there's a new worker and she like 'what?' She's aggressive towards the new worker because [in the child's words] 'she don't know me from a hole in the wall … she's judging me … ' [I] had to tell the worker to go back and read the file to learn more about the child and her issues and behavioural triggers ('she snaps real quick'). The child was upset. [She] had become attached to the other worker: 'I need him back, I need him here.' For the children, they get used to a caseworker, and the caseworker leaves. [Caseworkers are] overworked and underpaid… they will come to your house [late] for a visit and they are not getting paid overtime so eventually they're stressed out and they leave and it's not good for the children. They get used to that worker … I had a child that was really upset that her caseworker left. And when the new one came… she was really nasty towards the caseworker and the caseworker wasn't really great either – so the child kept saying 'well I'm not going to be home' so we never really had a visit. The kids, they're angry and I'm gonna tell you why they're angry. They see all these caseworkers comin' in and outta the house. Like it's ridiculous. The kids in my house have no respect for their workers. And when you listen to them you expect … what they're saying it make a lot of sense. You know how they talk to my worker? [Voicing one of her children]. 'What the f— are you doing here? At the end of the day – you here to get a degree? What you here for? You only going to be here for 5 minutes. Yo get the f— away from my door.' Explaining further, this participant said she asked the children about why they acted that way towards their caseworkers. "[Voicing her children:] 'They're in here and outta here to go to college. They don't care nothing about us.' My teenagers is real nasty and disrespectful to their workers, but I do see what they're talking about. But what can you do about it? Like it [is] true a lot of them do go to school and get their degrees." **Theme 11** Need to prepare and assist foster parents through transitions - Children were not the only ones impacted by staff transitions. Several participants also commented on how adjusting to new workers affected them emotionally: "Never mind about the kids feeling abandoned. I feel abandoned, too … 'cause every time you get used to a worker … so they can work with you with the case, there is a new one coming in. And you have to tell them about the child. They coming in with all the degrees and think they know about the child because they know about therapeutic kids but it is impossible unless you are hands on." Staff transitions did not occur only as a result of people leaving the agency. The "great" caseworkers were often promoted to different positions within the agency: "I have three social workers that became supervisors here and it means a lot when you get social workers that becomes supervisors that means that

	person is doing their job well. Although TFC foster parents often voiced pride in their workers' achievements, there was also a tacit understanding that the best workers would likely not remain in their positions for long. As the net effect was still a 'loss' for the TFC foster parent and child, the term 'turnover' was used not only to refer to workers leaving the agency, but those who left caseworker positions as they advanced within the agency as well: "Had three different caseworkers. Two have now changed position and are supervisors. I just got a new worker and she's pretty good. So I just hope she sticks around, but the turnover is ridiculous. Even when workers stayed within an agency, it didn't mean smooth transitions: "My worker, he didn't let me know, until three days [before he left his position]. He did give me three days. … And I said 'what? I'm going through all this stuff with this girl and you're telling me three days?' But he's still in the agency, but he moved up to something else. That's what everybody is doing. They're tired of being these workers, they're moving up. Tired of going out in the field doing all that hard labor. They moving up." "She was a very good caseworker and I didn't know until a month after she left. I found out when I went someplace else and I seen her in the building." Theme 12 Need to prepare caseworkers following transitions - Though children experienced the brunt of the emotional costs of transitions, foster parents' accounts also shed light on the needs of the new caseworkers assigned to them once their former caseworker left. TFC foster parents described times during which caseworkers, even supervisors, were not properly prepared, often leaving them to fill in the gaps. At times, this was ascribed to staff not having (or taking) the time to familiarize themselves with the case history and the child's clinical needs, especially with respect to complex TFC cases, following a transition. For example, one TFC foster parent explained a situation in which both the caseworker and supervisor left prior to a case conference with ACS. Though this TFC foster parent and the previous worker documented the improvements the biological mother had made to regain custody of her children, these efforts fell through the cracks during the transition—with the new foster agency staff focusing solely on the negative things the biological mother had done. "It's a problem. You're [referring to the biological mother] trying to do better and improve yourself to get your child back. They try to throw her under the bus. I had to speak up for her." Although she felt uncomfortable involving herself in the discussion, this TFC foster parent felt she had to stop the meeting and inform the workers the progress the biological parent had made, including arranging for services for her children with special needs, in order to be reunited with them. "I believe the new workers [are] supposed to take time. Read. Do your homework." [others in the background say 'yeah'] "I ran the show that day … I mean, don't you have the paperwork there?" In addition, many participants described transitioning to caseworkers that were not only new to their case, but also new to the foster care system and without much training or preparation from the agency. "We have a lot of young social workers. They are very inexperienced. They are fresh out of college. Going to work, into the field. They have no idea how to approach [the issues]. The majority of these caseworkers are very young …They are making inexperienced decisions." These caseworkers were also seen as lacking familiarity with community supports and services for their children. As one participant described it, "this is serious … if you have a kid that needs special care, the caseworker doesn't even know how to service the child … you have to do the homework for the caseworker." Theme 13 Methods identified to ease transitions - Participants agreed that more structured, consistent communication and support was needed around caseworker transitions—for everyone involved. At the very least, participants wanted to be informed in advance of impending departures, and, if possible, given the opportunity to meet with both workers, to facilitate transitions: "They absolutely have to have a meeting with the foster parent and the new worker. If there is a new worker coming on your case, and you wasn't aware of it ... the first thing that should happen is you're asked to come into the office, meet the new worker, have the child with you, and could you please bring your dossier … your questions, your concerns [several participants agreeing] … you know this worker is new, you know they don't know your child so bring it – tell them what they can do to help the child be more comfortable, work it out…We have to be ready. We need to prepare ourselves, so we have those things. The [new] social worker that take the case they should read and talk to the psychiatrist, psychologist, therapist … have knowledge about what is going on. Most participants acknowledged that therapeutic foster care staff have difficult, demanding jobs ("overworked and underpaid"), but nevertheless stressed that taking the time to provide foster parents with a 'seat at the table' during transitions to new staff would be beneficial to everyone. Theme 14 Transitions between therapeutic and regular care - Although the issue of managing transitions between 'regular' and 'therapeutic' care was not identified during all of the foster groups, we include it here because of the NYC foster care system's shift to regarding TFC as a short-term intervention. Some TFC foster parents described working very hard with their children to stabilize behaviours, then seeing the child "downgraded" to regular foster care (which involved staying in the same foster home but receiving less intensive services and often less financial support). Participants in this situation felt unsupported in this transition, and noted that their child still had special needs that became more challenging to meet given the decrease in agency support: "I was in therapeutic and I like therapeutic better, to me. Cause its easier, you know what you're dealing with and that's what I started off with … but they put me into the regular because my child was doing so much better now they downgraded me … because she's doing so good, we gonna step you down, but the people that you have [working in regular foster

	care], they don't understand the therapeutic children." Foster parents felt 'regular' care staff were less knowledgeable and did not understand the needs of children and families previously in therapeutic care. Several foster parents also noted that children transitioning between levels of care would be assigned a different worker and supervisor, which created one more unnecessary and difficult disruption. These parents suggested the same workers continue with the child throughout care: "Maybe they need to be multi-trained so that they can stay with the same worker, because like the child I have … it made it difficult … jumping from person to person, that's not comfortable for her."

Study arms

Treatment Foster Care (N = 75)
Therapeutic foster care (TFC), also known as treatment foster care, is a specialized level of treatment for children in care that have significant emotional and behavioural needs.

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	No
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Can't tell *(Appears to be a convenience sample, demographics of sample not clear, or why they were selected)*

Section	Question	Answer
Data collection	Was the data collected in a way that addressed the research issue?	Yes *(no discussion of saturation of data)*
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell
Ethical Issues	Have ethical issues been taken into consideration?	Can't tell
Data analysis	Was the data analysis sufficiently rigorous?	Yes
Findings	Is there a clear statement of findings?	Yes *(two authors independently reviewed content and reached agreement via discussion on the major themes)*
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and directness	Overall risk of bias	Moderate
	Directness	Partially applicable *(USA-based study)*

Vallejos 2015

Bibliographic Reference	VALLEJOS Elvira Perez; et al; Kundalini yoga as mutual recovery: a feasibility study including children in care and their carers; Journal of Children's Services; 2016; vol. 11 (no. 4); 261-282

Study Characteristics

Study type	Semi structured interviews RQ3.1
Aim of study	The purpose of this paper is to test whether incorporating a 20-week Kundalini yoga programme into a residential home for children improves well-being outcomes
Study location	UK
Study setting	A private residential provider comprising three children's homes situated within the East Midlands region of the UK. The three children's homes were rated by the national inspectorate, OFSTED, in 2013 as adequate, good and outstanding, respectively.
Study methods	This was a mixed methods feasibility study. Feasibility was assessed through recruitment and retention rates as well as participants' self-report perceptions on social inclusion, mental health and well-being and through semi-structured interviews on the benefits of the study. For the qualitative portion semi-structured interviews were used. A representative sample of participants was selected to participate in interviews via stratified randomisation; strata were gender, status (resident/staff) and children's home. One interviewer familiar with yoga and meditation was trained to conduct the interviews one-to-one over the phone. When appropriate, interviewers probed participants to retrieve explanations and experiences related to the yoga sessions. Each interview was audio-recorded with participants' permission and took an average of 15-20 min. A thematic analysis was applied. The audio transcripts were first read at least twice and then double coded for themes

	independently by two of the authors and any disagreements in coding were addressed in discussion. Authors used NVivo v10 and Microsoft Word Office 2010
Population	staff and residents from each of the three children's homes
Study dates	November 2013 to July 2014
Sources of funding	the Arts and Humanities Research Council
Inclusion Criteria	Care Situation Residential care Involvement in an intervention participants were recruited from a private residential provider comprising three children's homes taking part in a 20-week programme of Kundalini Yoga
Exclusion criteria	None reported
Sample characteristics	Sample size Nine male and female staff and residents from each of the three children's home with different attendance rates during the programme Other recruitment considerations A subset of staff and CIC participating in the study were selected to participate in the interviews via stratified randomisation; strata were children's home allocation, attendance (high vs low), gender and status (staff vs CIC).
Relevant themes	Theme 1 Findings - 1. Individual benefits: participant responses to the practice of yoga postures and breathing techniques, including how they have used these techniques to help themselves in their everyday life. Themes here include mental health (e.g. stress reduction, sleep, emotional regulation, and energy and concentration levels) and physical changes (e.g. back pain, posture improvement, physical awareness and breathing control). 2. Social benefits: transferable techniques learned during the yoga sessions when interacting with others (e.g. feeling more positive and open to others). 3. Recommendation about the design of yoga programmes in children's home: participant's insights concerning induction and introduction to the sessions, yoga implementation, and continuing yoga practice after the study (e.g. location of the sessions and participation rates). 4. Insights into research in children's home: participant's suggestions to improve the implementation of research studies in children's homes. Themes included promoting engagement among CIC and staff and reducing amount of paperwork. Theme 2

	Individual benefits - Participants reported that the yoga sessions offered beneficial exercises that they used in various contexts, such as before going to bed, emotional challenging times at work as well as at home, and to relieve back pain. Participants reported benefits including physical changes (e.g. increased bodily awareness and body posture) and improved mental health by feeling more energetic, relaxed and calmed. All participants focussed on the mental and emotional benefits and less on the physical benefits of yoga as an exercise. Correspondingly, benefits reported by these participants focussed more on changes in stress reduction, sleep, energy and concentration levels, and emotional regulation both during and outside the children's home. Regarding stress reduction, most participants reported positive effects such as feeling able to relax and stay calm. Some staff noticed positive changes on CIC, describing them as quieter and calmer after the yoga sessions: "I felt a lot calmer, felt more ready to be able to deal with the issues (S3). […] she does just seem a lot calmer and happy afterwards (S7)." Most participants reported that yoga augmented the quality and duration of their sleep. Many of them used yoga techniques to aid in falling asleep at night: "When I'm going to sleep I use that part at the end when you lie down and have to like, relax, to cool down, I use that when I'm going to sleep and its helps me to go to sleep (S1). […] for me sleep was a problem and I don't think it was through exhaustion, and I certainly sleep a lot better now than I did (S9)." Most participants reported an increased ability to observe and control emotions. Many participants indicated a decrease in their tendency to be emotionally reactive and an increase in the ability to witness their own negative feelings with detachment. Some participants indicated a greater sense of self-awareness and focus on their own health: "I felt really good […] it put quite a lot of things into perspective (S9). I learnt a lot about myself, I think it's given me far more focus in what I'm doing, I think reflecting and looking back on it regarding focus; it gave me a lot more focus, not just jobwise but life wise […] I'm happier, I'm certainly happier, and I'm certainly a lot more focussed on my health than I was and I say I'm a lot more focussed on me than I was (S9)." Regards energy and concentration levels, (Kundalini as energy un-blocker), some participants reported feeling more energetic and being able to focus more on their activities: "She seems more happy and energised afterwards (S7). […] helped me concentrate (S9)." Physical changes were also reported. An important principle of yoga is learning how to be fully present in the moment-by-moment experience of being alive. Kundalini yoga uses a combination of dynamic postures and breathing exercises to facilitate body awareness. Some staff found specific stretches helpful for their back pain, posture improvement, physical awareness and breathing control: ""I couldn't do many [asanas] because of my back injury, but what I did do was some of the breathing exercises and things which I found quite good", "breathing and control of breathing" (S8). […] yoga's sort of like reignited that interest again [feeling healthy through exercise] […] I regularly do the exercises at home (S9)." Theme 3 Social benefits: enacting togetherness - Some participants reported direct benefits from practicing yoga with others, and felt more positive, open to others and, as a consequence, an improvement in their social life in and outside work. Some staff and residents noticed that other people interacted more positively with them. For example, on the first day of the programme we scheduled two evening sessions to allocate CIC and staff from the three children homes (one from 17.00 hrs till 18.00 hrs and the second right after an hour later). One CIC from the second session complained about being "the only girl" and decided not to join in. A CIC from the first group encouraged her to join and gave her reasons including: "you should not miss it", "it is great", "it is not what you think", "it will blow your mind" and so on. The young person from the first group agreed to repeat the session to accompany and support her friend allocated to the second group. This example captures the generosity and good intentions of the young person from the first group, willing to repeat the session to ensure her friend would experience the similar benefits that she had experienced. In this altruistic example, mutuality is central and it is facilitating relational depth among CIC as well as acting as role model to staff and other CIC. Some staff and CIC indicated that practicing yoga together brought new opportunities for engaging in conversations related to the yoga practice and it provided a new topic of conversation and opportunities for being together and supports each other: "[People are more] positive, they will be like 'Oh have you done this or that or the other' and it's more friendly (S1). I feel more positive and more open (S4). I mean it did make for a good conversation point because we were all having a good chat about it, what we did there and how, we had a laugh (S5). They'd come back a bit quieter (S5). "I have noticed X, who participated the most, who seems a bit more open and a bit calmer afterwards". "She seems more happy and energised afterwards" (S7). It was nice to sit down afterwards and it was nice that we all chatted around the table and ate dinner together (S7). My friends are surprised that I probably offer them a few more solutions than I used to, I think my friend circle has probably expanded a bit where I've had friends, but they've not been really meaningful, now I take a little bit more of an interest in what's happening to them and I think that they probably recognise that (S9). I feel more connected to others (S9). Certainly patience with the service user, with the children, I've always had, it's always been there, but I think the way I react now to situations with managers is a lot more focussed and not as reactive, I'm pretty much more proactive than I used to be (S9). Theme 4 Insights on designing a yoga programme in children's homes - Bringing yoga into children's home has unique challenges and opportunities. All interviewees found the yoga sessions enjoyable and most describe them as fun, very good and interesting. Most participants enjoyed the relaxing part and highlighted its calming effects as the outcome they enjoyed the most. All interviewees expressed a willingness to continue the sessions. Nobody indicated any suggestions for improvements, keeping the 1 hr weekly sessions as it was delivered, maintaining its content and the format. While most staff indicated that attendance could improve by keeping the session in-house, a mixture of responses were found among the residents. Questions of implementation among both residents and staff such as "should sessions be compulsory for staff?" came up during several of the interviews: "[…] it's opened my eyes to something new (S3). "[…] it was a good way [the yoga teacher] delivered it, with the music and doing lots of different quite short exercise and then the relaxation at the

	end was always nice", "I thought it was delivered well and when the young people were around and were engaged then everything went really well", "I think the actual yoga itself was quite good", "Yeah, probably [to continue the yoga sessions]" (S4). I enjoyed it all […] meditation techniques on how to breathe calmly and diffuse things with breathing (S5). It was clear, it was definitely clear […] would not change anything (S8)." Theme 5 Barriers to attendance - Initially, the yoga sessions were offered within each residential setting; however, due to logistic problems, such as the yoga sessions clashing with other after-school activities, participants suggested holding the sessions in a school hall on a suitable date/time to benefit from the larger space and the opportunity to merge all the CIC and staff within a single venue. Participants also anticipated that an external venue could offer fewer distractions and provide a physical distance from the rather stressful residential settings. Having the yoga sessions within the school premises did not suit one of the children's homes because of the long distance they had to travel and, consequently, it was finally decided to merge only two of the children's homes in a nearby church hall and continue with the in-house yoga sessions for the more outlying children's home. When participants were asked about the location, only one indicated a preference for having the sessions in an external venue, while most of the interviews stated that having in-house sessions could improve attendance: "I think it was great having it in the house, for the kids, it helped who was a little bit nervous of what to do, and rather than her just refusing, she was there and she was witnessing it and she could see all the people that were joining in and that sort of encouraged her to join in as well, I think it would need to remain at the home (S3). I'd rather be at home […] Maybe you should try and do it in-house, because then it's more you coming to them instead of us having to try and get the young people out of the house (S5)." Participants reflected on the low participation rates expressing that some staff felt they did not have enough time to attend the sessions or that some CIC were not eager to attend. This meant that the young practitioners supporting thoseCICwere also unable to attend.Most staff felt that they had to attend the yoga sessions and this pressure created a barrier for engagement. Some staff felt the rationale for participation was not introduced adequately, especially to those with no previous experience in yoga. Some participants felt there was a lack of ownership, consultation and co-production on the implementation of the yoga study. Most participants reported that they would continue to practice yoga, especially among those that experienced benefits: ""Every time I was at work and it came up usually the young people didn't want to go, every time I tried to talk them into going they wasn't interested really, and as far as during my days off I just never really had time", "I don't really have time at this time", "I wish I would have had time to make it, I really do, it sounds like something that is fascinating to me but I just, with the way things happen in life sometimes you can't do everything you want to do" (S2). I just wish more people would have participated from the home, the staff at the home you know; I think if we'd had better participation from the staff the kids would have been more inclined to join in, so I found that a bit of a frustration on my part (S3). Yeah, you're unable to plan for anything, your day shifts so rapidly from one minute to the next, its constant changes and how we adapt to them, and I think when people haven't had that insight into them it's quite an eye opener (S3). I think it was just probably that they had other activities planned or had their own trust time so they wanted to go out independently on their own and not necessarily to yoga (S5). It would have been nicer if the kids were more engaged (S6). "I think, if was it was sort of more, it was hard for people to get to and hard for people to give up work, and if you're on shift and the kids aren't in a good mood it made it quite difficult for us, and obviously if you'd had a bad shift the day before you didn't feel like coming in, and I think that was one of the main problems, attendance, because we had to fit it in around our shifts and we work such long shifts that it made it quite difficult to staff" […] "I think if it was more optional then staff would be more willing to take part, I think the fact that we were told it was training and we would get in trouble if we didn't attend sort of upset people before they'd even started" (S7)." On nature of the context, the following comments illustrate the stressful nature of the children's home environment as well as some personal reflections from members of staff that influenced participation involvement in the yoga sessions: "We're having a bit of a rough ride at the minute and the staff are a bit like "oh no" […] but for all the bad days we have there's twice as many good days […], so that's the way you've got to look at it, we go through the bad times but we actually have some really good times with the children and that's important to recognise isn't it (S3). Disappointed in myself that there were lots of issues going on in the home that sometimes took me a away from being able to do the yoga (S3)."

Study arms

Kundalini yoga programme (N = 9)

The goal of yoga is to calm the mind and affect the way one thinks, but also how one interact with the world. Through asana (yoga postures) and pranayama (control of the breath) this intervention seeks to positively affect lives and interactions with others. Kundalini is a more dynamic type of yoga with a special focus on breath and movement that works predominantly on the glands and nervous system. It differs from other more

classical styles of yoga where quiet still postures are predominant. Called by practitioners, “the yoga of awareness”, Kundalini yoga includes repetitive vocalisations (i.e. chanting), breathing exercises (i.e. pranayama and breath of fire), yoga postures (i.e. asana) and meditation to facilitate a calmed and relaxed state of mind and body. This study assesses the feasibility of whether a more dynamic, fun and physical type of yoga can improve well-being, mental health and relationship outcomes on children living in a residential home. Mutual recovery entailed that children in care (CIC), youth practitioners and management participated together in the Kundalini yoga sessions. The style of yoga was based on a secular version of Kundalini yoga. The programme was delivered via a 20-lesson-plan and included postures, breathing exercises, chanting, dancing and meditation techniques. Each 44-60 min session was generally structured to include warming up, one or two periods of meditation or rest combined with physical movements ranging from warm ups to a peak session of dancing, running, shaking and squats, combined with some static postures, cooling down, 10 min of relaxation, and ending with 3-5 min of meditation.

Risk of Bias

Section	**Question**	**Answer**
Aims of the research	Was there a clear statement of the aims of the research?	Yes
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	Yes
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Yes *(However, no discussion RE why some chose not to take part)*
Data collection	Was the data collected in a way that addressed the research issue?	Yes

Section	Question	Answer
Researcher and participant relationship	Has the relationship between researcher and participants been adequately considered?	Can't tell
Ethical Issues	Have ethical issues been taken into consideration?	Yes
Data analysis	Was the data analysis sufficiently rigorous?	Can't tell *(Thematical analysis was not explicitly described)*
Findings	Is there a clear statement of findings?	Yes *(Multiple analysts were used to analyse themes)*
Research value	How valuable is the research?	The research is valuable
Overall risk of bias and directness	Overall risk of bias	Moderate
	Directness	Directly applicable

Appendix E – Forest plots

No forest plots were produced for this review question as meta-analysis was not attempted.

Appendix F – GRADE tables and CERQual tables

Quantitative evidence

Parent Management Training Oregon (PMTO) vs Care as Usual (CAU)

	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Caregiver-reported social-emotional functioning at postintervention: assessed using the Child and Adolescent Functioning Assessment Scale (CAFAS) and the Preschool and Early Childhood Functional Scale (PECFAS) (higher scores = worse)								
1 (Akin 2015)	Parallel RCT	121	**MD -29.20 (-47.27 to -11.13)**	Very serious[1]	N/A	Serious[2]	Serious[3]	Very low
Caregiver-reported social-emotional functioning at 6-months: assessed using the Child and Adolescent Functioning Assessment Scale (CAFAS) and the Preschool and Early Childhood Functional Scale (PECFAS) (higher scores = worse)								
1 (Akin 2018/2019)	Parallel RCT	918	**MD -26.00 (-36.28 to -15.72)**	Very serious[4]	N/A	Serious[2]	Not Serious (but less than MID)	Very low
Caregiver-reported social-emotional functioning at 12-months: assessed using the Child and Adolescent Functioning Assessment Scale (CAFAS) and the Preschool and Early Childhood Functional Scale (PECFAS) (higher scores = worse)								
1 (Akin 2018/2019)	Parallel RCT	918	**MD -19.01 (-29.05 to -8.97)**	Very serious[4]	N/A	Serious[2]	Not Serious (but less than MID)	Very low

1. Downgrade two levels due to very serious risk of bias. Subjects were aware of their assignment group prior to agreeing to study participation. Few baseline characteristics reported. Some differences but unclear if significant. 1:1 Randomisation resulted in considerably more in the intervention group. Unclear if there were deviations from assigned intervention, this is likely since more participants were assigned to the

	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
intervention group than control group despite 1:1 randomisation (in order to fill PMTO case load)). Though missing data did occur, this study is not clear how much data was missing and proportion between groups. Information on conduct of trial was insufficient and there was no protocol cited. 2. Downgrade one level for serious indirectness since study was based in USA. 3. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=26.65). 4. Downgrade two levels due to very serious risk of bias. High risk of bias due to missing data. The control group had case managers. However, the study did not say whether the intervention group had case managers or not. 50% of the data was missing at time 2 because of attrition. No blinding and some of the outcomes are subjective.								

Multi-dimensional Treatment Foster Care for adolescents (MTFC-A) vs CAU

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Substance abuse over 1 year follow up:								
1 (Bergstrom 2016)	Parallel RCT	46	OR: 0.45 (0.12 to 1.75)	Very Serious[1]	N/A	Very Serious[2]	Very Serious[3]	Very low
Substance abuse over 3 years follow up:								
1 (Bergstrom 2016)	Parallel RCT	46	OR: 0.45 (0.13 to 1.59)	Very Serious[1]	N/A	Very Serious[2]	Very Serious[3]	Very low
Health of the Nation Outcome Scales for Children and Adolescents mean score at 12 months								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Green 2014)	Parallel RCT	34	MD -0.89 [-2.86, 1.08]	Very serious[4]	N/A	Not serious	Not serious	low
Adjusted mean difference in Health of the Nation Outcome Scales for Children and Adolescents score at 12 months								
1 (Green 2014)	Parallel RCT	34	MD -1.04 (-6.21 to 4.13)[5]	Very serious[4]	N/A	Not serious	NE[6]	Very Low
Children's Global Assessment Scale (CGAS) mean score at 12 month follow up								
1 (Green 2014)	Parallel RCT	34	MD 0.75 [-2.50, 4.00]	Very serious[4]	N/A	Not serious	Not serious	low
Adjusted mean difference in Children's Global Assessment Scale (CGAS) score at 12 month follow up								
1 (Green 2014)	Parallel RCT	34	MD 1.30 (-7.14 to 9.74) [5]	Very serious[4]	N/A	Not serious	NE[6]	Very Low

1. Downgrade two levels for very serious risk of bias. Unclear if allocation concealment. the MTFC group had significantly more families with an immigrant background. Few baseline characteristics reported other than those on which randomisation was performed. No information provided about whether there were deviations from treatment, or whether intent-to-treat analysis was used. Unclear if missing outcome data, approach to missing outcome data and whether missing data varied between comparison groups. Unclear information about the conduct of trial and no protocol cited.
2. Downgrade one level for serious indirectness since study was based in Sweden. Downgrade one level since participants were juveniles at risk for immediate out-of-home placement (awaiting placement in out of home care). However, all but one participants (treatment/control group) were in out of home care during the course of the study.

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

3. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.8 and 1.25 for odds ratios)
4. Downgrade 2 levels for very serious risk of bias: Unclear if/why participants did not receive allocated intervention; Significant deviations apparent since 8/20 in the treatment group did not receive their interventions. In the intervention group 15-20% had missing data; it was also unclear how much other data was missing since some outcomes were imputed; Unclear if appropriate imputation methods used; reasons for missing data not given; Missingness of data may well be related to the result of the outcomes reported. However, outcomes were triangulated from multiple sources. Assessors were masked to treatment group.
5. Adjusted for baseline scores
6. Downgraded two levels as imprecision was not estimable

Multi-dimensional Treatment Foster Care for adolescents (MTFC-A) vs Group Care

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Association between being in the MTFC group and pregnancy at 24 months follow up								
1 (Kerr 2009/Harold 2013/Kerr 2014/Poulton 2014)	Parallel RCT	166	**OR 0.41 (0.23 to 0.75)[1]**	Not serious	N/A	Very Serious[2]	Not Serious	Very low
Association between being in the intervention group and reduction in depression symptoms over 24 month follow up								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Kerr 2009/Harold 2013/Kerr 2014/Poulton 2014)	Parallel RCT	166	**Beta coefficient -0.34 (P<0.05)[3]**	Not serious	N/A	Very Serious[2]	NE[4]	Very Low
Adjusted odds of clinical depression from being in the intervention group over 24 months follow up								
1 (Kerr 2009/Harold 2013/Kerr 2014/Poulton 2014)	Parallel RCT	166	**OR 0.57 (0.39 to 0.83)[3]**	Not serious	N/A	Very Serious[1]	Serious[5]	Very low
Association between being in the intervention group and Psychotic Symptoms (BSI) over 24 months follow up								
1 (Kerr 2009/Harold 2013/Kerr 2014/Poulton 2014)	Parallel RCT	166	**beta coefficient -2.05 (-3.87 to -0.23)[6]**	Not serious	N/A	Very Serious[1]	NE[4]	Very Low
Association between being in the intervention group and DISC-IV psychotic symptoms at 24 months follow up								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Kerr 2009/Harold 2013/Kerr 2014/Poulton 2014)	Parallel RCT	166	**beta coefficient -0.65 (-1.08 to -0.22)[7]**	Not serious	N/A	Very Serious[1]	NE[4]	Low
Association between being in the intervention group and change in depressive symptoms (CES-D) over 9 years follow up								
1 (Kerr 2009/Harold 2013/Kerr 2014/Poulton 2014)	Parallel RCT	166	**Beta coefficient** **-0.855 (-1.62 to -0.09)[8]**	Not serious	N/A	Very Serious[1]	NE[4]	Low
Association between being in the intervention group and change in occurrence of suicidal ideation over 9 years follow up								
1 (Kerr 2009/Harold 2013/Kerr 2014/Poulton 2014)	Parallel RCT	166	OR 0.92 (0.84 to 1.01)[9]	Not serious	N/A	Very Serious[1]	Not Serious	Low
Association between being in the intervention group and postbaseline suicide attempts over 9 years follow up								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Kerr 2009/Harold 2013/Kerr 2014/Poulton 2014)	Parallel RCT	166	**Beta coefficient 0.16 (-0.29 to 0.61)[10]**	Not serious	N/A	Very Serious[1]	NE[4]	Low
Intervention effect on change in tobacco use at 12 months follow up: participants reported on their use of tobacco, alcohol, marijuana, and other drugs (i.e., cocaine, speed, LSD, heroin, mushrooms, PCP, morphine, and inhalants) according to a 5-point Likert scale								
1 (Smith 2010)	Parallel RCT	79	Beta coefficient -0.15 (P>0.05).	Very Serious[11]	N/A	Serious[12]	NE[4]	Very low
Intervention effect on change in tobacco use at 18 months follow up: participants reported on their use of tobacco, alcohol, marijuana, and other drugs (i.e., cocaine, speed, LSD, heroin, mushrooms, PCP, morphine, and inhalants) according to a 5-point Likert scale								
1 (Smith 2010)	Parallel RCT	79	**Beta coefficient** **-0.34 (P<0.01)**	Very Serious[11]	N/A	Serious[12]	NE[4]	Very low
Intervention effect on change in marijuana use at 12 months follow up: participants reported on their use of tobacco, alcohol, marijuana, and other drugs (i.e., cocaine, speed, LSD, heroin, mushrooms, PCP, morphine, and inhalants) according to a 5-point Likert scale								
1 (Smith 2010)	Parallel RCT	79	Beta coefficient -0.10 (P>0.05).	Very Serious[11]	N/A	Serious[12]	NE[4]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Intervention effect on change in marijuana use at 18 months follow up: participants reported on their use of tobacco, alcohol, marijuana, and other drugs (i.e., cocaine, speed, LSD, heroin, mushrooms, PCP, morphine, and inhalants) according to a 5-point Likert scale								
1 (Smith 2010)	Parallel RCT	79	**Beta coefficient** **-0.30 (P<0.01)**	Very Serious[11]	N/A	Serious[12]	NE[4]	Very low
Intervention effect on change in alcohol use at 12 months follow up: participants reported on their use of tobacco, alcohol, marijuana, and other drugs (i.e., cocaine, speed, LSD, heroin, mushrooms, PCP, morphine, and inhalants) according to a 5-point Likert scale								
1 (Smith 2010)	Parallel RCT	79	Beta coefficient -0.16 (P>0.05)	Very Serious[11]	N/A	Serious[12]	NE[4]	Very low
Intervention effect on change in alcohol use at 18 months follow up: participants reported on their use of tobacco, alcohol, marijuana, and other drugs (i.e., cocaine, speed, LSD, heroin, mushrooms, PCP, morphine, and inhalants) according to a 5-point Likert scale								
1 (Smith 2010)	Parallel RCT	79	Beta coefficient -0.14 (P>0.05)	Very Serious[11]	N/A	Serious[12]	NE[4]	Very low
Intervention effect on change in other drug use at 12 months follow up: participants reported on their use of tobacco, alcohol, marijuana, and other drugs (i.e., cocaine, speed, LSD, heroin, mushrooms, PCP, morphine, and inhalants) according to a 5-point Likert scale								
1 (Smith 2010)	Parallel RCT	79	**Beta coefficient**	Very Serious[11]	N/A	Serious[12]	NE[4]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
			-0.26 (P<0.05)					
Intervention effect on change in other drug use at 18 months follow up: participants reported on their use of tobacco, alcohol, marijuana, and other drugs (i.e., cocaine, speed, LSD, heroin, mushrooms, PCP, morphine, and inhalants) according to a 5-point Likert scale								
1 (Smith 2010)	Parallel RCT	79	**Beta coefficient** **-0.24 (P<0.05)**	Very Serious[11]	N/A	Serious[12]	NE[4]	Very low

1. Adjusted for baseline criminal referrals, baseline sexual activity, and baseline pregnancy history.
2. Downgrade two levels for very serious indirectness since study was based in USA and it is unclear that girls were "looked after" prior to being referred to care for chronic delinquency
3. Adjusted for depression symptoms at baseline, age, RCT trial, physical abuse history, sexual abuse history, ethnicity, prior criminal referrals, days in locked settings, and days to treatment entry
4. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.8 and 1.25 for odds ratios)
5. Downgraded two levels as imprecision was not estimable
6. Adjusted for baseline marijuana use, baseline age, and ethnicity.
7. Adjusted for baseline marijuana use, baseline age, prior symptoms, and ethnicity.
8. Adjusted for cohort, baseline depression scores, and baseline age.
9. Adjusted for cohort, baseline age, and baseline depression scores
10. Adjusted for baseline age, depressive symptoms, and attempts.
11. Downgrade 2 levels for very serious risk of bias: Method of randomization not given. No baseline characteristics provided to assess the success of randomization. No blinding. Outcomes are from records – the accuracy of which might be variable.
12. Downgrade 1 level for serious indirectness since study was based in USA

Multi-dimensional Treatment Foster Care for pre-schoolers (MTFC-P) vs Routine Foster Care

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Association between being in the routine foster care group and AM salivary cortisol over 12 months follow up								
1 (Fisher 2007)	Parallel RCT	117	Beta coefficient 0.027 (-0.09 to 0.03)	Serious[1]	N/A	Serious[2]	NE[3]	Low
Association between being in the routine foster care group and PM salivary cortisol over 12 months follow up								
1 (Fisher 2007)	Parallel RCT	117	**Beta coefficient - 0.027 (0.29 to 0.99)**	Serious[1]	N/A	Serious[2]	NE[3]	Low
Association between being in the routine foster care group and change in AM-PM salivary cortisol over 12 months follow up								
1 (Fisher 2007)	Parallel RCT	117	**Beta coefficient - 0.01 (-0.02 to - 0.00)**	Serious[1]	N/A	Serious[2]	NE[3]	Low
Relationship between being in the intervention group and postplacement morning to evening cortisol decrease								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Fisher 2011)	Parallel RCT	71	**Beta coefficient 0.40 (0.09 to 0.71)[4]**	Very Serious[5]	N/A	Serious[2]	Not Serious	Very low

1. Downgrade 1 level for serious risk of bias: Unclear how randomisation performed or if allocation concealment. 80% attrition across study follow up. The total amount of missing data was not equally distributed across groups. The amount of missing AM–PM, AM, and PM data was highest for the RFC group. Missingness of cortisol data could be related to emotional problems and therefore related to cortisol levels. However, authors attempted to account for this using analystical techniques. In addition the amount of missing data was not very large for cortisol sampling (7%).
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade two levels as imprecision was not estimable
4. Adjusting for decrease pre-placement move
5. Downgrade 2 levels for serious risk of bias: Unclear method of randomisation, unclear if allocation concealment, unclear if comparison groups remained similar at baseline for important characteristics because these were not reported. Study reports subsample from a larger randomised controlled trial (Fisher 2007)). Likely modified intention to treat. In the original trial: The total amount of missing data was not equally distributed across groups. The amount of missing AM–PM, AM, and PM data was highest for the RFC group. Missingness of cortisol data could be related to emotional problems and therefore related to cortisol levels. However, authors attempted to account for this using analystical techniques. In addition the amount of missing data was not very large (7%). However, it is unclear how much missing data was present for this subsample). Unclear if this subgroup analysis described in this paper was planned prior to unblinded outcome data were available for analysis).

Multidimensional Treatment Foster Care for pre-schoolers (MTFC-P) vs Usual Care

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Mean saliva cortisol 1 week before the start of school: morning								
1 (Graham 2012)	Parallel RCT	16	MD 0.19 [-0.05, 0.43]	Very serious[1]	N/A	Serious[2]	Serious[3]	Very low
Mean saliva cortisol 1 week before the start of school: afternoon								
1 (Graham 2012)	Parallel RCT	16	MD 0.02 [-0.03, 0.07]	Very serious[1]	N/A	Serious[2]	Very serious[4]	Very low
Mean saliva cortisol 1 week before the start of school: evening								
1 (Graham 2012)	Parallel RCT	16	MD -0.03 [-0.14, 0.08]	Very serious[1]	N/A	Serious[2]	Very serious[5]	Very low
Mean salivary cortisol on the 1st day of school: morning								
1 (Graham 2012)	Parallel RCT	16	MD 0.05 [-0.24, 0.34]	Very serious[1]	N/A	Serious[2]	Very serious[6]	Very low
Mean salivary cortisol on the 1st day of school: afternoon								
1 (Graham 2012)	Parallel RCT	16	MD -0.03 [-0.13, 0.07]	Very serious[1]	N/A	Serious[2]	Very serious[7]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Mean salivary cortisol on the 1st day of school: evening								
1 (Graham 2012)	Parallel RCT	16	MD -0.04 [-0.09, 0.01]	Very serious[1]	N/A	Serious[2]	Serious[8]	Very low
Mean salivary cortisol on the 5th day of school: morning								
1 (Graham 2012)	Parallel RCT	16	MD -0.23 [-0.64, 0.18]	Very serious[1]	N/A	Serious[2]	Serious[9]	Very low
Mean salivary cortisol on the 5th day of school: afternoon								
1 (Graham 2012)	Parallel RCT	16	MD -0.04 [-0.18, 0.10]	Very serious[1]	N/A	Serious[2]	Very serious[10]	Very low
Mean salivary cortisol on the 5th day of school: evening								
1 (Graham 2012)	Parallel RCT	16	MD 0.00 [-0.01, 0.01]	Very serious[1]	N/A	Serious[2]	Very serious[11]	Very low

1. Downgrade 2 levels for very serious risk of bias: Trial was from a subset of a larger randomised controlled trial. However, this study failed to recruit many eligible participants from the original trial. Since comparison groups differed by gender it is likely that randomisation was broken. This study were unable to recruit at least 30% of those from the original trial.
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=0.095).

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

4. Downgrade 2 levels for serious imprecision since estimate of effect crossed 2 lines of MID (defined as 0.5*SD in the control group=0.02).
5. Downgrade 2 levels for serious imprecision since estimate of effect crossed 2 lines of MID (defined as 0.5*SD in the control group=0.055).
6. Downgrade 2 levels for serious imprecision since estimate of effect crossed 2 lines of MID (defined as 0.5*SD in the control group=0.16).
7. Downgrade 2 levels for serious imprecision since estimate of effect crossed 2 lines of MID (defined as 0.5*SD in the control group=0.06).
8. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=0.035).
9. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=0.255).
10. Downgrade 2 levels for serious imprecision since estimate of effect crossed 2 lines of MID (defined as 0.5*SD in the control group=0.09).
11. Downgrade 2 levels for serious imprecision since estimate of effect crossed 2 lines of MID (defined as 0.5*SD in the control group=0.005).

Treatment Foster Care (together facing the challenge) vs Treatment Foster Care as Usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
The strengths and difficulties questionnaire z score of the difference of means between intervention group and comparison group at 6 months: assessed using the strengths and difficulties questionnaire								
1 (Farmer 2010)	Parallel RCT	247	**MD 0.41 (0.17 to 0.65)**	Serious[1]	N/A	Serious[2]	NE[3]	Low
The strengths and difficulties questionnaire z score of the difference of means between intervention group and comparison group at 12 months: assessed using the strengths and difficulties questionnaire								
1 (Farmer 2010)	Parallel RCT	247	MD 0.16 (-0.12 to 0.44)	Serious[1]	N/A	Serious[2]	NE[3]	Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Association between being in the intervention group and strengths and difficulties questionnaire score by 12 months								
1 (Farmer 2010)	Parallel RCT	247	**Beta coefficient -0.18 (-0.33 to -0.03)**	Serious[1]	N/A	Serious[2]	NE[3]	Low
Behavioural and Emotional Rating z score of the mean differences between intervention and comparison group at 6 months: assessed using the Behavioural and Emotional Rating Scale								
1 (Farmer 2010)	Parallel RCT	247	**MD -0.243 (-0.45 to -0.03)**	Serious[1]	N/A	Serious[2]	NE[3]	Low
Behavioural and Emotional Rating z score of the mean differences between intervention and comparison group at 12 months: assessed using the Behavioural and Emotional Rating Scale								
1 (Farmer 2010)	Parallel RCT	247	MD -0.02 (-0.25 to 0.21)	Serious[1]	N/A	Serious[2]	NE[3]	Low
Association between being in the intervention group and Behavioural and Emotional Rating Scale score by 12 months								
1 (Farmer 2010)	Parallel RCT	247	Beta coefficient 0.07 (-0.07 to 0.20)	Serious[1]	N/A	Serious[2]	NE[3]	Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

1. Downgrade 1 level for serious risk of bias: no blinding and the outcomes are somewhat subjective.
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade two levels as imprecision was not estimable

Health and Wellbeing Coordinator vs WL

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Number of serves on the previous day of sugary drinks at 6 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).								
1 (Cox 2017)	Parallel RCT	57	MD 0.90 (-0.79 to 2.59)	Very Serious[1]	NA	Serious[2]	Serious[3]	Very low
Number of serves on the previous day of sugary drinks at 12 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).								
1 (Cox 2017)	Parallel RCT	42	MD 0.11 [-1.64 to 1.86]	Very Serious[1]	NA	Serious[2]	Very Serious[4]	Very low
Number of serves on the previous day of health foods at 6 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).								
1 (Cox 2017)	Parallel RCT	57	MD -0.58 (-1.86 to 0.70)	Very Serious[1]	NA	Serious[2]	Serious[5]	Very low
Number of serves on the previous day of health foods at 12 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Cox 2017)	Parallel RCT	42	MD 0.64 [-1.40 to 2.68]	Very Serious[1]	NA	Serious[2]	Serious[6]	Very low
Number of serves on the previous day of unhealthy foods at 6 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).								
1 (Cox 2017)	Parallel RCT	57	MD 1.20 (-0.18 to 2.58)	Very Serious[1]	NA	Serious[2]	Serious[7]	Very low
Number of serves on the previous day of unhealthy foods at 12 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).								
1 (Cox 2017)	Parallel RCT	42	MD 1.21 [-1.27 to 3.69]	Very Serious[1]	NA	Serious[2]	Serious[8]	Very low
Number of minutes of screen time in in 1 day at 6 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).								
1 (Cox 2017)	Parallel RCT	57	MD -71.75 [-217.89 to 74.39]	Very Serious[1]	NA	Serious[2]	Serious[9]	Very low
Number of minutes of screen time in in 1 day at 12 months follow up: assessed using the Children's Eating and Physical Activity Questionnaire (EPAQ).								
1 (Cox 2017)	Parallel RCT	42	**MD 113.44 [8.20 to 218.68]**	Very Serious[1]	NA	Serious[2]	Serious[10]	Very low
Number of active days in a week at 6 months follow up: assessed using the Adolescent Physical Activity Measure								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Cox 2017)	Parallel RCT	57	**MD -1.68 [-3.18 to -0.18]**	Very Serious[1]	NA	Serious[2]	Serious[11]	Very low
Number of active days in a week at 12 months follow up: assessed using the Adolescent Physical Activity Measure								
1 (Cox 2017)	Parallel RCT	42	**MD -2.95 [-4.58 to -1.32]**	Very Serious[1]	NA	Serious[2]	Not Serious	Very low
BMI z-score at 6 months follow up: calculated using height and weight measures, BMI for-age z-scores were calculated								
1 (Cox 2017)	Parallel RCT	57	MD 0.18 [-0.79 to 1.15]	Very Serious[1]	NA	Serious[2]	Serious[12]	Very low
BMI z-score at 12 months follow up: calculated using height and weight measures, BMI for-age z-scores were calculated								
1 (Cox 2017)	Parallel RCT	42	MD 0.37 [-0.97 to 1.71]	Very Serious[1]	NA	Serious[2]	Serious[13]	Very low
Symptoms of depression mean score at 6 months follow up: assessed using the Depression Anxiety Stress Scale								
1 (Cox 2017)	Parallel RCT	57	MD 0.90 [-8.52 to 10.32]	Very Serious[1]	NA	Serious[2]	Very Serious[14]	Very low
Symptoms of depression mean score at 12 months follow up: assessed using the Depression Anxiety Stress Scale								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Cox 2017)	Parallel RCT	42	**MD 14.80 [9.04, 20.56]**	Very Serious[1]	NA	Serious[2]	Not serious	Very low
Symptoms of anxiety mean score at 6 months follow up: assessed using the Depression Anxiety Stress Scale								
1 (Cox 2017)	Parallel RCT	57	MD -0.50 [-6.48 to 5.48]	Very Serious[1]	NA	Serious[2]	Very Serious[15]	Very low
Symptoms of anxiety mean score at 12 months follow up: assessed using the Depression Anxiety Stress Scale								
1 (Cox 2017)	Parallel RCT	42	**MD 12.30 [7.36, 17.24]**	Very Serious[1]	NA	Serious[2]	Not serious	Very low
Symptoms of stress mean score at 6 months follow up: assessed using the Depression Anxiety Stress Scale								
1 (Cox 2017)	Parallel RCT	57	MD -1.50 [-9.94 to 6.94]	Very Serious[1]	NA	Serious[2]	Serious[16]	Very low
Symptoms of stress mean score at 12 months follow up: assessed using the Depression Anxiety Stress Scale								
1 (Cox 2017)	Parallel RCT	42	**MD 14.40 [6.41, 22.39]**	Very Serious[1]	NA	Serious[2]	Not serious	Very low

1. Downgrade 2 levels for very serious risk of bias: Age was significantly different between youth across groups, youth in wait list control were older by a mean of 2 years. There were far fewer participants in the control group. Unclear how randomisation was performed, unclear if allocation concealment. Unclear if participants were recruited before randomisation. Many more youth were randomised to the intervention

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
group suggesting possible differential recruitment into control arms. Two thirds of participants were missing in both arms by the end of the study. 2. Downgrade 1 level for indirectness since study was based in Australia 3. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=1.46) 4. Downgrade 2 levels for serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group=1.27) 5. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=1.06) 6. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=1.45) 7. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=1.25) 8. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=1.61) 9. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=136.36) 10. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=51.96) 11. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=1.31) 12. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=0.85) 13. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=1.00) 14. Downgrade 2 levels for serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group=8.50) 15. Downgrade 2 levels for serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group=5.40) 16. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=7.65)								

Taking Care Triple vs Care as Usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Presence of a child mental disorder at 12 months: measured using Diagnostic Interview of Mental Disorders in Childhood and Adolescents (KinderDIPS)								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Job 2020)	Parallel RCT	87	Beta coefficient -0.01, SE 0.29, p=0.990	Not Serious	N/A	Serious[1]	NE[2]	Very Low
Child anxiety symptoms score at 12 months: measured using the Preschool Anxiety Scale								
1 (Job 2020)	Parallel RCT	87	Beta coefficient -3.63, SE 4.08, p=0.378	Not Serious	N/A	Serious[1]	NE[2]	Very Low

1. Downgrade 1 level for serious indirectness since study was based in Germany
2. Downgrade two levels as imprecision was not estimable

Fostering Healthy Futures vs Care as Usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Adjusted mental health factor score, multi-informant at 6 months								
1 (Taussig 2010)	Parallel RCT	156	MD 0.08 (-0.22 to 0.38)[19]	Serious[1]	N/A	Serious[2]	Not Serious	Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Adjusted mental health factor score, multi-informant at 9 months								
1 (Taussig 2010)	Parallel RCT	156	**MD -0.52 (-0.84 to -0.20)**[19]	Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Adjusted posttraumatic symptoms at 6 months, youth report, t score, mean:								
1 (Taussig 2010)	Parallel RCT	156	MD -1.05 (-4.25 to 2.15) [19]	Serious[1]	N/A	Serious[2]	Not Serious	Low
Adjusted posttraumatic symptoms at 9 months, youth report, t score, mean:								
1 (Taussig 2010)	Parallel RCT	156	MD -2.79 (-5.70 to 0.12) [19]	Serious[1]	N/A	Serious[2]	Serious[4]	Very low
Adjusted positive coping, youth report at 6 months, mean:								
1 (Taussig 2010)	Parallel RCT	156	MD 0.03 (-0.08 to 0.14) [19]	Serious[1]	N/A	Serious[2]	Not Serious	Very low
Adjusted positive coping, youth report at 9 months, mean:								
1 (Taussig 2010)	Parallel RCT	156	MD 0.08 (-0.03 to 0.19) [19]	Serious[1]	N/A	Serious[2]	Serious[5]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Adjusted Negative coping, youth report at 6 months, mean:								
1 (Taussig 2010)	Parallel RCT	156	MD -0.01 (-0.07 to 0.05) [19]	Serious[1]	N/A	Serious[2]	Not Serious	Very low
Adjusted Negative coping, youth report at 9 months, mean:								
1 (Taussig 2010)	Parallel RCT	156	MD -0.05 (-0.11 to 0.01) [19]	Serious[1]	N/A	Serious[2]	Serious[6]	Very low
Adjusted global self-worth, youth report at 6 months, mean								
1 (Taussig 2010)	Parallel RCT	156	MD 0.03 (-0.15 to 0.21) [19]	Serious[1]	N/A	Serious[2]	Not Serious	Very low
Adjusted global self-worth, youth report at 9 months, mean								
1 (Taussig 2010)	Parallel RCT	156	MD 0.10 (-0.07 to 0.27) [19]	Serious[1]	N/A	Serious[2]	Serious[7]	Very low
Adjusted social acceptance, youth report at 6 months, mean:								
1 (Taussig 2010)	Parallel RCT	156	MD 0.12 (-0.12 to 0.36) [19]	Serious[1]	N/A	Serious[2]	Not Serious	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Adjusted social acceptance, youth report at 9 months, mean:								
1 (Taussig 2010)	Parallel RCT	156	MD 0.10 (-0.09 to 0.29) [19]	Serious[1]	N/A	Serious[2]	Serious[8]	Very low
Dissociation symptoms at 6 months, youth report, t score, mean:								
1 (Taussig 2010)	Parallel RCT	156	MD -1.25 (-4.31 to 1.81) [19]	Serious[1]	N/A	Serious[2]	Not Serious	Very low
Dissociation symptoms at 9 months, youth report, t score, mean:								
1 (Taussig 2010)	Parallel RCT	156	**MD -3.66 (-6.52 to -0.80)** [19]	Serious[1]	N/A	Serious[2]	Serious[9]	Very low
Adjusted Received recent MH therapy, youth report, (%) at 6 months:								
1 (Taussig 2010)	Parallel RCT	156	OR 0.68 [0.34, 1.36] [19]	Serious[1]	N/A	Serious[2]	Very Serious[10]	Very low
Adjusted Received recent MH therapy, youth report, (%) at 9 months:								
1 (Taussig 2010)	Parallel RCT	156	**OR 0.46 [0.23, 0.92]** [19]	Serious[1]	N/A	Serious[2]	Serious[11]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Adjusted on current MH therapy, caregiver report, (%) at 6 months:								
1 (Taussig 2010)	Parallel RCT	156	OR 0.59 [0.30, 1.17] [19]	Serious[1]	N/A	Serious[2]	Serious[11]	Very low
Adjusted on current MH therapy, caregiver report, (%) at 9 months:								
1 (Taussig 2010)	Parallel RCT	156	OR 0.67 [0.35, 1.29] [19]	Serious[1]	N/A	Serious[2]	Very Serious[10]	Very low
Adjusted on medication for MH problems recently at 6 months, youth report, (%):								
1 (Taussig 2010)	Parallel RCT	156	OR 0.59 [0.21, 1.64] [19]	Serious[1]	N/A	Serious[2]	Very Serious[10]	Very low
Adjusted on medication for MH problems recently at 9 months, youth report, (%):								
1 (Taussig 2010)	Parallel RCT	156	OR 0.68 [0.25, 1.84] [19]	Serious[1]	N/A	Serious[2]	Very Serious[10]	Very low
Adjusted on current medication for MH problems, caregiver report, at 6 months:								
1 (Taussig 2010)	Parallel RCT	156	OR 1.14 [0.42, 3.07] [19]	Serious[1]	N/A	Serious[2]	Very Serious[10]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Adjusted on current medication for MH problems, caregiver report, at 9 months:								
1 (Taussig 2010)	Parallel RCT	156	OR 0.55 [0.21, 1.44] [19]	Serious[1]	N/A	Serious[2]	Very Serious[10]	Very low
Adjusted Quality of life at 6 months, youth report, mean: assessed using the Life Satisfaction Survey,								
1 (Taussig 2010)	Parallel RCT	156	**MD 0.12 (0.04 to 0.20)** [19]	Serious[1]	N/A	Serious[2]	Not Serious	Very low
Adjusted Quality of life at 12 months, youth report, mean: assessed using d the Life Satisfaction Survey,								
1 (Taussig 2010)	Parallel RCT	156	MD 0.04 (-0.04 to 0.12) [19]	Serious[1]	N/A	Serious[2]	Very Serious[12]	Very low
Adjusted social support factor score, youth report at 6 months, mean								
1 (Taussig 2010)	Parallel RCT	156	MD 0.25 (-0.04 to 0.54) [19]	Serious[1]	N/A	Serious[2]	Serious[13]	Very low
Adjusted social support factor score, youth report at 9 months, mean								
1 (Taussig 2010)	Parallel RCT	156	MD 0.02 (-0.30 to 0.34) [19]	Serious[1]	N/A	Serious[2]	Very Serious[14]	Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Mental health score at 10 months: assessed using the mental health index								
1 (Taussig 2019)	Parallel RCT	346	**MD -0.22 (-0.41, -0.03)[20]**	Very Serious[21]	N/A	Serious[2]	Serious[15]	Very Low
Post-traumatic stress score at 10 months: assessed using the Posttraumatic Stress and Dissociation scales of the child self-report Trauma Symptom Checklist for Children								
1 (Taussig 2019)	Parallel RCT	375	MD -1.76 (-3.53, 0.01)[20]	Serious[21]	N/A	Serious[2]	Serious[16]	Very Low
Dissociation score at 10 months: assessed using the Posttraumatic Stress and Dissociation scales of the child self-report Trauma Symptom Checklist for Children								
1 (Taussig 2019)	Parallel RCT	375	**MD -2.43 (-4.15, -0.71)[20]**	Serious[21]	N/A	Serious[2]	Serious[17]	Very Low
Quality of life at 10 months: assessed using the Life Satisfaction Scale								
1 (Taussig 2019)	Parallel RCT	375	MD 0.12 (-0.01, 0.09)[20]	Serious[21]	N/A	Serious[2]	Serious[18]	Very Low
Children's use of mental health services at 10 months: assessed based on child and caregiver reports								
1 (Taussig 2019)	Parallel RCT	377	**OR 0.62 (0.40 to 0.97)[20]**	Serious[21]	N/A	Serious[2]	Serious[11]	Very Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Children’s use of psychotropic medications at 10 months: assessed based on child and caregiver reports								
1 (Taussig 2019)	Parallel RCT	378	OR 1.01 (0.53 to 1.94)[20]	Serious[21]	N/A	Serious[2]	Very Serious[10]	Very Low

1. Downgrade 1 level for serious risk of bias: Unclear how randomisation was performed or if allocation concealment. Unclear if any blinding procedures employed and outcomes were generally self-reported or carer-reported. It is likely that these participants were aware of any interventions received. Some differences at baseline but these were adjusted for in analysis. Loss to follow up was low however, those lost to follow-up had lower IQs and more mental health problems than those interviewed.
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.06)
4. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.54)
5. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.02)
6. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.01)
7. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.03)
8. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.035)
9. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.53)
10. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.8 and 1.25 for odds ratios)
11. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.8 and 1.25 for odds ratios or 0.5*SD of the control group)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

12. Downgrade 2 levels for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.015)
13. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.06)
14. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.06)
15. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.04)
16. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.38)
17. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.42)
18. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.01)
19. Adjusted for baseline score and baseline differences in IQ, maternal criminal history and physical abuse.
20. Adjusted for the baseline score
21. Downgrade 2 levels for very serious risk of bias: Unclear randomisation details and unclear if allocation concealment. Missing data was as high as 20% for Mental health index outcomes. It is unclear how groups differed for missing data. It was unclear that outcome assessors were blinded for study allocation. For mental health index outcomes the risk of bias is high, for all other outcomes the risk of bias is some concerns.

Attachment and Biobehavioural Catch-up (ABC) vs Developmental Education for Families (DEF)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Salivary mean AM cortisol: units ug/dl								
1 (Dozier 2006)	Parallel RCT	60	**MD -0.39 [-0.75 to -0.03]**	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Salivary mean PM cortisol: units ug/dl								
1 (Dozier 2006)	Parallel RCT	60	**MD -0.30 [-0.55, -0.05]**	Very Serious[1]	N/A	Serious[2]	Serious[4]	Very low
Overall mean difference between groups for salivary cortisol: units ug/dl								
1 (Dozier 2006)	Parallel RCT	60	**MD -0.29 (-0.59 to -0.15)**	Very Serious[1]	N/A	Serious[2]	Serious[5, 9]	Very low
Initial salivary cortisol levels (pre-strange situation): association between being in the ABC group and initial cortisol level								
1 (Dozier 2008)	Parallel RCT	93	**beta coefficient -0.27 (-0.47 to -0.07)[6]**	Very Serious[7]	N/A	Serious[2]	NE[8]	Very low
Salivary cortisol following strange situation: association between being in the ABC group and change in salivary cortisol following the strange situation								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Dozier 2008)	Parallel RCT	93	**beta coefficient: 0.06 (-0.02 to 0.14)**[6]	Very Serious[7]	N/A	Serious[2]	NE[8]	Very low

1. Downgrade 2 levels for very serious risk of bias: Unclear how randomisation was performed or whether there was allocation concealment. Study reports no differences between groups with respect to age, gender, or ethnicity but does not present data. Study did not report any information about the quantity of missing data. In fact, it was unclear how many participants had even been assigned to either the control or intervention group. Foster parents and birth parents were blind to condition, as were researchers responsible for entering data, assaying cortisol samples, and analysing data. Study provided poor information regarding how the trial was performed. No protocol was cited.
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=0.46)
4. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=0.35)
5. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=0.35)
6. Results adjusted for age, sex, and ethnicity
7. Downgrade 2 levels for very serious risk of bias: Unclear how randomisation was performed, unclear if allocation concealment. There was considerable differences between DEF and ABC groups for gender and non-white ethnicity which suggested a problem with randomisation. In addition, few baseline variables were reported making it difficult to assess for any other important differences between groups. It appears this study had missing data, however it is unclear how much and whether this difference between intervention groups. In addition this study does not report whether loss to follow up occurred following initial randomisation. Cortisol measures likely took place at different times of day. Cortisol is known to vary significantly depending on the time of day. Adjusted results were not presented. In addition, the strange situation was run using cortisol levels upon entrance to the lab as baseline, these are unlikely to reflect normal levels of cortisol since participants are in an unusual environment. Publication is poorly reported in terms of describing the original trial
8. Downgraded twice as imprecision was non estimable
9. Study did not report arm-level overall mean difference, therefore standard deviation from PM cortisol recordings in the control group was used

TAKE CHARGE (individualised coaching and group mentoring) vs Usual Care

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Self-determination score following intervention: assessed using the parent, student, and teacher versions of the AIR Self-Determination Scale as well as by asking youth to describe their goals and accomplishments as respective indices of youths' future directedness and positive self-attribution								
1 (Geenen 2012)	Parallel RCT	120	MD 2.91 (-0.28 to 6.10)	Very serious[1]	N/A	Serious[2]	Serious[3]	Very low
Self-determination score following at 9-months follow up: assessed using the parent, student, and teacher versions of the AIR Self-Determination Scale as well as by asking youth to describe their goals and accomplishments as respective indices of youths' future directedness and positive self-attribution								
1 (Geenen 2012)	Parallel RCT	120	MD 2.80 (-0.31 to 5.91)	Very serious[1]	N/A	Serious[2]	Serious[4]	Very low
Youth self-report anxiety mean score at postintervention follow up: Youth Self Report scale								
1 (Geenen 2012)	Parallel RCT	120	**MD -2.59 (-4.70 to -0.48)**	Very serious[1]	N/A	Serious[2]	Serious[5]	Very low
Youth self-report anxiety mean score at 9-months follow up: Youth Self Report scale								
1 (Geenen 2012)	Parallel RCT	120	**MD -0.52 [-2.64 to 1.60]**	Very serious[1]	N/A	Serious[2]	Not Serious	Very low
Carer reported child anxiety-depressed mean score at postintervention: assessed using the child behaviour checklist								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Geenen 2012)	Parallel RCT	120	**MD -5.10 (-7.88 to -2.32)**	Very serious[1]	N/A	Serious[2]	Serious[6]	Very low
Carer reported child anxiety-depressed mean score at 9-months follow up: assessed using the child behaviour checklist								
1 (Geenen 2012)	Parallel RCT	120	**MD -2.80 [-5.59 to -0.01]**	Very serious[1]	N/A	Serious[2]	Serious[7]	Very low
Carer reported child withdrawn-depressed mean score at postintervention: assessed using the child behaviour checklist								
1 (Geenen 2012)	Parallel RCT	120	**MD -3.47 [-6.48 to -0.46]**	Very serious[1]	N/A	Serious[2]	Serious[8]	Very low
Carer reported child withdrawn-depressed mean score at postintervention: assessed using the child behaviour checklist								
1 (Geenen 2012)	Parallel RCT	120	**MD -2.96 [-5.79 to -0.13]**	Very serious[1]	N/A	Serious[2]	Serious[9]	Very low
Carer reported child somatic complaints mean score at postintervention: assessed using the child behaviour checklist								
1 (Geenen 2012)	Parallel RCT	120	MD -2.86 [-6.31 to 0.59]	Very serious[1]	N/A	Serious[2]	Serious[10]	Very low
Carer reported child somatic complaints mean score at 9-months follow up: assessed using the child behaviour checklist								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Geenen 2012)	Parallel RCT	120	**MD -4.44 [-7.36 to -1.52]**	Very serious[1]	N/A	Serious[2]	Serious[11]	Very low

1. Downgrade 2 levels for very serious risk of bias: Downgrade 2 levels for very serious risk of bias: Some considerable differences between comparison groups for length of time in foster care, speech and language disability, autism, and emotional/behavioural needs; unclear if any deviations from intended interventions; unclear if intention to treat analysis used (but most likely); Just over 10% with missing data post randomisation; unclear whether any further missing outcome data; unclear reasons for drop out; unclear how drop out varied between groups; It is possible that missingness of data is related to outcomes; It is unclear how assessments were performed (by whom). Unclear if facilitators were aware of intervention status of participants. Measurements used are often crude indicators of the phenomenon of interest; unclear that analysis was conducted according to a pre-specified protocol. Data not provided for certain non-significant results. Evidence of multiple analyses used for different outcomes.
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=4.47).
4. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=4.41).
5. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=3.31).
6. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=4.3).
7. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=4.3).
8. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=4.8).
9. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=4.5).
10. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=4.7).
11. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=4.8).

Better futures (summer institute; individual coaching; mentoring workshop) vs Usual Care

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Self-determination score following intervention: assessed using the parent, student, and teacher versions of the AIR Self-Determination Scale as well as by asking youth to describe their goals and accomplishments as respective indices of youths' future directedness and positive self-attribution.								
1 (Geenen 2015)	Parallel RCT	67	MD 11.55 (3.72 to 19.38)	Very serious[1]	N/A	Serious[2]	Serious[3]	Very low
Self-determination score following at 6-months follow up: assessed using the parent, student, and teacher versions of the AIR Self-Determination Scale as well as by asking youth to describe their goals and accomplishments as respective indices of youths' future directedness and positive self-attribution.								
1 (Geenen 2015)	Parallel RCT	67	MD 13.98 (6.71 to 21.25)	Very serious[1]	N/A	Serious[2]	Serious[4]	Very low
Career decision self-efficacy scale post-intervention: measured using Career Decision Self-Efficacy Scale, a measure of post-secondary and transition planning.								
1 (Geenen 2015)	Parallel RCT	67	MD 0.70 (0.34 to 1.06)	Very serious[1]	N/A	Serious[2]	Serious[5]	Very low
Career decision self-efficacy scale at 6 months follow up: measured using Career Decision Self-Efficacy Scale, a measure of post-secondary and transition planning.								
1 (Geenen 2015)	Parallel RCT	67	MD 0.96 (0.64 to 1.28)	Very serious[1]	N/A	Serious[2]	Not Serious	Very low
Self-determination post intervention: assessed by the Arc self-determination scale								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Geenen 2015)	Parallel RCT	67	MD 14.34 (4.50 to 24.18)	Very serious[1]	N/A	Serious[2]	Serious[6]	Very low
Self-determination at 6 months follow up: assessed by the Arc self-determination scale								
1 (Geenen 2015)	Parallel RCT	67	MD 21.83 (13.69 to 29.97)	Very serious[1]	N/A	Serious[2]	Not Serious	Very low
Quality of life questionnaire post-intervention mean score: assessed by the Quality of Life Questionnaire								
1 (Geenen 2015)	Parallel RCT	67	MD 2.23 [-4.59 to 9.05]	Very serious[1]	N/A	Serious[2]	Serious[7]	Very low
Quality of life questionnaire at 6 months mean score: assessed by the Quality of Life Questionnaire								
1 (Geenen 2015)	Parallel RCT	67	**MD 8.46 [3.28 to 13.64]**	Very serious[1]	N/A	Serious[2]	Serious[8]	Very low
Hopelessness score at postintervention: assessed by the Hopelessness Scale for Children								
1 (Geenen 2015)	Parallel RCT	67	**MD -5.78 [-9.39, -2.17]**	Very serious[1]	N/A	Serious[2]	Serious[9]	Very low
Hopelessness score at 6-months follow up: assessed by the Hopelessness Scale for Children								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Geenen 2015)	Parallel RCT	67	**MD -6.20 (-9.42 to -2.98)**	Very serious[1]	N/A	Serious[2]	Serious[10]	Very low
Mental health recovery score at postintervention: assessed by Mental Health Recovery Measure								
1 (Geenen 2015)	Parallel RCT	67	MD 7.51 [-1.10, 16.12]	Very serious[1]	N/A	Serious[2]	Serious[11]	Very low
Mental health recovery score at 6-months follow up: assessed by Mental Health Recovery Measure								
1 (Geenen 2015)	Parallel RCT	67	**MD 8.91 [0.60, 17.22]**	Very serious[1]	N/A	Serious[2]	Serious[12]	Very low

1. Downgrade 2 levels for very serious risk of bias: Unclear approach to analysis e.g. whether participants were excluded due to not receiving intervention as planned (per-protocol analysis)); Missing data reported for certain scales, but amount of missing data unclear or how this varied between sclaes/intervention groups; Scales not described in detail and insufficient information on assessment process (e.g. who assessors were and whether blinded)); Unclear methods and no protocol cited. Multiple measures used for the same phenomenon e.g. self-determination.
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=9.66).
4. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=8.96).
5. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=0.40).
6. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=10.95).
7. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=6.79).
8. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=5.36).
9. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=3.63).
10. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=3.61).

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
11. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=9.59). 12. Downgrade 1 level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group=7.38).								

Middle school success intervention vs care as usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Substance use score at 3 years follow up (composite): girls were asked how many times in the past year they had (a) smoked cigarettes or chewed tobacco, (b) drank alcohol (beer, wine, or hard liquor), and (c) used marijuana. The response scale ranged from 1 (never) through 9 (daily).								
1 (Kim 2011/2013)	Parallel RCT	100	**MD -0.74 (-1.33 to -0.15)**	Very serious[2]	N/A	Serious[3]	Serious[4]	Very low
Tobacco use score at 3 years follow up (composite): girls were asked how many times in the past year they had smoked cigarettes or chewed tobacco. The response scale ranged from 1 (never) through 9 (daily).								
1 (Kim 2011/2013)	Parallel RCT	100	**MD -0.87 (-1.69 to -0.05)**	Very serious[2]	N/A	Serious[3]	Serious[5]	Very low
Alcohol use score at 3 years follow up (composite): girls were asked how many times in the past year they had drank alcohol (beer, wine, or hard liquor). The response scale ranged from 1 (never) through 9 (daily).								
1 (Kim 2011/2013)	Parallel RCT	100	**MD -0.31 (-0.78 to 0.16)**	Very serious[2]	N/A	Serious[3]	Serious[6]	Very low
Marijuana use score at 3 years follow up (composite): girls were asked how many times in the past year they had used marijuana. The response scale ranged from 1 (never) through 9 (daily).								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Kim 2011/2013)	Parallel RCT	100	**MD -1.04 (-1.74 to -0.34)**	Very serious[2]	N/A	Serious[3]	Serious[7]	Very low

1. Adjusted for age, maltreatment history, pubertal development, internalising behaviours at baseline
2. Downgrade 2 levels for very serious risk of bias: unclear if allocation concealment; approximately 10% loss to follow up by 2 years; analysis of outcomes at various time points appeared to be decided post-hoc; results (apart from results for substance use and delinquency) appear to have been selected on the basis of results across multiple time points.
3. Downgrade 1 level for serious indirectness since study was based in USA
4. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.96)
5. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=1.25)
6. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.73)
7. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=1.22)

Child adult relationship enhancement (CARE): Care Training vs Standard Training

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Association between being in the intervention group and anxiety score at 1 month follow up: assessed by the trauma symptom checklist for young children								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Messer 2018)	Parallel RCT	31	Beta coefficient: -6.09 (-13.52 to 1.33)	Not Serious	N/A	Serious[2]	NE[3]	Very Low
Association between being in the intervention group and anxiety score at 3 months follow up: assessed by the trauma symptom checklist for young children								
1 (Messer 2018)	Parallel RCT	31	**Beta coefficient: -10.07 (-18.99 to -1.15)**	Not Serious	N/A	Serious[2]	NE[3]	Very Low
Association between being in the intervention group and depression score at 1 month follow up: assessed by the trauma symptom checklist for young children								
1 (Messer 2018)	Parallel RCT	31	Beta coefficient: -9.1 (-19.92 to 1.72)	Not Serious	N/A	Serious[2]	NE[3]	Very Low
Association between being in the intervention group and depression score at 3 month follow up: assessed by the trauma symptom checklist for young children								
1 (Messer 2018)	Parallel RCT	31	Beta coefficient: -11.04 (-23.27 to 1.19)	Not Serious	N/A	Serious[2]	NE[3]	Very Low
Association between being in the intervention group and anger/aggression score at 1 month follow up: assessed by the trauma symptom checklist for young children								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Messer 2018)	Parallel RCT	31	Beta coefficient: -2.53 (-7.49 to 2.43)	Not Serious	N/A	Serious[2]	NE[3]	Very Low
Association between being in the intervention group and anger/aggression score at 3 months follow up: assessed by the trauma symptom checklist for young children								
1 (Messer 2018)	Parallel RCT	31	Beta coefficient: -8.06 (-19.82 to 3.7)	Not Serious	N/A	Serious[2]	NE[3]	Very Low
Association between being in the intervention group and post-traumatic stress arousal score at 1 month follow up: assessed by the trauma symptom checklist for young children								
1 (Messer 2018)	Parallel RCT	31	Beta coefficient: -4.44 (-11.95 to 3.07)	Not Serious	N/A	Serious[2]	NE[3]	Very Low
Association between being in the intervention group and post-traumatic stress arousal score at 3 months follow up: assessed by the trauma symptom checklist for young children								
1 (Messer 2018)	Parallel RCT	31	Beta coefficient: -6.83 (-16.32 to 2.66)	Not Serious	N/A	Serious[2]	NE[3]	Very Low

1. Downgrade 1 level for serious indirectness since study was based in USA
2. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm)
3. Downgraded twice as imprecision was not estimable

Foster Carer Training vs Care as Usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Self-esteem mean score (Modified Rosenberg Self-esteem Scale) at 9 months follow up								
1 (Minnis 2001)	Parallel RCT	100	MD -1.00 [-2.77, 0.77]	Not Serious	N/A	Not Serious	Not Serious	High
Strengths and Difficulties mean score (Strengths and Difficulties Scale) at 9 months follow up: foster carer reported								
1 (Minnis 2001)	Parallel RCT	100	MD 2.00 [-0.60, 4.60]	Not Serious	N/A	Not Serious	Serious[1]	Moderate
Strengths and Difficulties mean score (Strengths and Difficulties Scale) at 9 months follow up: teacher-reported								
1 (Minnis 2001)	Parallel RCT	100	**MD 6.00 [3.53, 8.47]**	Not Serious	N/A	Not Serious	Serious[2]	Moderate
Strengths and Difficulties mean score (Strengths and Difficulties Scale) at 9 months follow up: child self-report								
1 (Minnis 2001)	Parallel RCT	100	**MD 3.00 [0.53, 5.47]**	Not Serious	N/A	Not Serious	Serious[2]	Moderate

1. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=4)
2. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=3.5)

Promoting First Relationships vs Early Education Support

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Association between post-strange situation cortisol and being in the intervention group (decreasing cortisol pattern, compared to flat)								
1 (Nelson 2013)	Parallel RCT	48	OR 0.46 (0.04 to 6.03)	Very Serious[1]	N/A	Serious[2]	Very Serious[3]	Very low
Association between post-strange situation cortisol and being in the intervention group (increasing cortisol pattern, compared to flat)								
1 (Nelson 2013)	Parallel RCT	48	**OR 27.79 (1.20 to 643.47)**	Very Serious[1]	N/A	Serious[2]	Serious[4]	Very low
Association between post-strange situation cortisol and being in the intervention group (increasing cortisol pattern, compared to decreasing)								
1 (Nelson 2013)	Parallel RCT	48	**OR 60.08 (1.34 to 2691.40)**	Very Serious[1]	N/A	Serious[2]	Serious[4]	Very low

1. Downgrade 2 levels for very serious risk of bias: There are significant amounts of missing data post-randomisation, since this was a subsample of a larger trial. However, in addition to this 57 participants were eligible to participate in this subsample and did not contribute to analysis. The study does not compare intervention groups for missing data or report baseline characteristics therefore it is difficult to say that randomisation was not broken or that data were missing at random. No blinding procedures described, however, outcomes were objective. Analysis was adjusted for time of day (cortisol collection). Study does not report raw data of cortisol levels (means SD) at follow up).
2. Downgrade 1 level for serious indirectness since study was based in USA.
3. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.8 and 1.25 for odds ratios)
4. Downgrade 1 level for serious imprecision since confidence intervals crossed a line of MID (defined as 0.8 and 1.25 for odds ratios)

Power Through Choices (PTC) vs Care as Usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Support for methods of sexual protection score, mean difference between comparison groups: items were from the Youth Risk Behavior Surveillance System or from the Prevention Minimum Evaluation Data Set								
1 (Oman 2016)	Parallel RCT	952	**0.17 (P<0.0001)[1]**	Serious[2]	N/A	Very Serious[3]	NE[4]	Very low
Barriers to methods of sexual protection score, mean difference between comparison groups: items were from the Youth Risk Behavior Surveillance System or from the Prevention Minimum Evaluation Data Set								
1 (Oman 2016)	Parallel RCT	952	0.06 (P=0.1163)[1]	Serious[2]	N/A	Very Serious[3]	NE[4]	Very low
Mean percentage difference between comparison groups in number definitely not and probably not going to have sex: assessed using items from the Youth Risk Behaviour Surveillance System or the Prevention Minimum Evaluation Data Set								
1 (Oman 2016)	Parallel RCT	952	-1.4% (p=0.5504) [1]	Serious[2]	N/A	Very Serious[3]	NE[4]	Very low
Mean percentage difference between comparison groups in number who would definitely/probably use a condom: assessed using items from the Youth Risk Behaviour Surveillance System or the Prevention Minimum Evaluation Data Set								
1 (Oman 2016)	Parallel RCT	952	**8.9% (p=0.0052)[1]**	Serious[2]	N/A	Very Serious[3]	NE[4]	Very low
Percentage difference between comparison groups in number who would definitely and probably use a method of birth control: assessed using items from the Youth Risk Behaviour Surveillance System or the Prevention Minimum Evaluation Data Set								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Oman 2016)	Parallel RCT	952	**8.1% (P=0.0422)**[1]	Serious[2]	N/A	Very Serious[3]	NE[4]	Very low
Mean difference between comparison groups in ability to communicate with partner score at postintervention: assessed using items from the Youth Risk Behaviour Surveillance System or the Prevention Minimum Evaluation Data Set								
1 (Oman 2016)	Parallel RCT	952	**0.23 (p<0.0001)** [1]	Serious[2]	N/A	Very Serious[3]	NE[4]	Very low
Mean difference between comparison groups for plan for protected sex and to avoid unprotected sex score at postintervention: assessed using items from the Youth Risk Behaviour Surveillance System or the Prevention Minimum Evaluation Data Set								
1 (Oman 2016)	Parallel RCT	952	**0.27 (P<0.0001)** [1]	Serious[2]	N/A	Very Serious[3]	NE[4]	Very low
Difference in mean percentage "very sure" of where to get birth control between comparison groups at postintervention: assessed using items from the Youth Risk Behaviour Surveillance System or the Prevention Minimum Evaluation Data Set								
1 (Oman 2016)	Parallel RCT	952	**15.0% (P=0.0017)** [1]	Serious[2]	N/A	Very Serious[3]	NE[4]	Very low

1. adjusted for baseline age, gender, and race/ethnicity
2. Downgrade 1 level for serious risk of bias: Self-report outcomes which may have been influenced by knowledge of intervention group. Data were collected at pre-, post-, 6-month, and 12-month follow-up but only post intervention results presented. Data is presented as means without measure of spread. Measures used for outcomes were often construct scores created by the study authors. It is unclear if these outcome measures have been meaningfully validated.
3. Downgrade 2 levels for very serious indirectness since group homes served in the study included: (1) youth in the child welfare system; (2) youth in the juvenile justice system; or (3) a mixture of youth from both systems. Also study was USA-based.
4. Downgrade 2 levels as imprecision was not estimable

Kids in Transition to School (KITS) programme vs care as usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Emotional regulation score following intervention: assessed by a composite score from the anger subscale and the reactivity/soothability subscale (of the Children's Behaviour Questionnaire), the Emotion Regulation scale (of the Emotion Regulation Checklist), and the Emotion Control subscale (of the BRIEF–P)								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	MD 0.00 (-0.22 to 0.22)	Very serious[1]	N/A	Serious[2]	Not Serious	Very low
Association between being in the intervention group and self-regulatory skills following intervention before starting school: assessed by composite of indicators of self-regulation, above (inhibitory control, behavioural regulation, emotional regulation)								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	**β 0.11 P<0.05**[3]	Very serious[1]	N/A	Serious[2]	NE[4]	Very low
Positive attitudes towards alcohol at 9 years of age: assessed by questions adapted from the Monitoring the Future National Survey Questionnaire								
1 (Pears 2012, Pears (2013), Pears	Parallel RCT	192	**MD -0.30 (-0.50 to -0.10)**	Very serious[1]	N/A	Serious[2]	Serious[5]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
(2016), Lynch (2017))								
Self-competence at 9 years of age: assessed by six questions on the Global Self-Worth Scale of the Self-Perception Profile for Children.								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	MD 1.91 (0.82 to 3.00)	Very serious[1]	N/A	Serious[2]	Serious[6]	Very low
Association between being in the intervention group and positive attitudes towards alcohol at 9 years of age: assessed by questions adapted from the Monitoring the Future National Survey Questionnaire								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	**β -0.34 P<0.05**[7]	Very serious[1]	N/A	Serious[2]	NE[4]	Very low
Association between being in the intervention group and self-competence at 9 years of age: assessed based on the Global Self-Worth Scale of the Self-Perception Profile for Children								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	**β 1.95 P<0.01**[7]	Very serious[1]	N/A	Serious[2]	NE[4]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Salivary cortisol mean difference from days prior to intervention and the first day of school								
1 (Graham 2018)	Parallel RCT	192	**MD -0.03 [-0.06, -0.01]**	Very serious[1]	N/A	Serious[2]	Serious[8]	Very low
The relationship between intervention status and 1st day of school salivary cortisol slope								
1 (Graham 2018)	Parallel RCT	192	-0.05 (P<0.05)	Very serious[1]	N/A	Serious[2]	NE[4]	Very low

1. Downgrade 2 levels for very serious risk of bias: randomisation process not described; unclear if allocation concealment; there was significant missing data "ranging from 0 - 40%" across measures; unclear how different outcomes were affected by missing data; reasons for missing data not outlined; unclear how quantity of missing data differed between intervention groups; insufficient information to confirm pre-specified protocol/no cited protocol; Composite outcomes were frequently created from the results of multiple (separate) scales, these subscales were not reported separately. There was also no cited protocol to show that methods of analysing data had been pre-agreed.
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Adjusted for gender, Latino ethnicity, self-regulatory skills at baseline, day-care attendance
4. Downgrade twice as imprecision was not estimable
5. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.16)
6. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=2.09)
7. Adjusted for oppositional and aggressive behaviours at baseline, gender, overall level of disruptiveness in classroom
8. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.05)

"Mein Weg" trauma-focussed group intervention vs Usual Care

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Severity of PTSS (assessed by Child and Adolescent Trauma Screen) self-report, at 2 months postbaseline								
1 (Pfeiffer 2018)	Parallel RCT	99	**MD -6.73 (-11.58 to -1.88)**	Not Serious	NA	Serious[1]	Serious[2]	Low
Symptoms of Depression (assessed using the Patient Health Questionnaire 8) at 2 months postbaseline								
1 (Pfeiffer 2018)	Parallel RCT	99	**MD -3.51 (-5.60 to -1.42)**	Not Serious	NA	Serious[1]	Serious[3]	Low
Dysfunctional posttraumatic cognition (assessed using the Child Posttraumatic Cognitions Inventory Short Version) at 2 months postbaseline								
1 (Pfeiffer 2018)	Parallel RCT	99	**MD -3.63 (-6.75 to -0.51)**	Not Serious	NA	Serious[1]	Serious[4]	Low
Caregiver-rated PTSS symptoms (measured by the CATS caregiver version) at 2 months postbaseline:								
1 (Pfeiffer 2018)	Parallel RCT	99	MD -1.24 (-5.08 to 2.59)	Not Serious	NA	Serious[1]	Serious[5]	Low

1. Downgrade one level for serious indirectness since study was based in Germany.
2. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=8.6)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
3. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=3.8) 4. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=5.6) 5. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=6.9)								

Foster Family Intervention vs CAU

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Salivary cortisol. intervention group compared to care as usual for change in salivary cortisol from baseline, beta coefficient (95%CI): not controlled for time of day								
1 (Van Andel 2016)	Parallel RCT	123	**Beta coefficient** **0.08 (-0.41 to 0.57)**	Serious[1]	N/A	Serious[2]	NE[3]	Low
Salivary cortisol. intervention group compared to care as usual for change in salivary cortisol from baseline, beta coefficient (95%CI): controlled for time of day								
1 (Van Andel 2016)	Parallel RCT	123	**Beta coefficient**	Serious[1]	N/A	Serious[2]	NE[3]	Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
			0.38 (-0.13 to 0.89)					

1. Downgrade 1 level for serious risk of bias: No blinding and some of the outcomes are fairly subjective.
2. Downgrade 1 level for serious indirectness since study was based in Netherlands
3. Downgrade twice since it was not possible to calculated imprecision

"Make a Move" Sexual Harassment Prevention Program vs Wait list control

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Attitude communication score at 8 weeks postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.09 [-0.39, 0.57]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low
Attitude communication score at 6 months postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.02 [-0.37, 0.41]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Attitude self-control score at 8 weeks postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.19 [-0.24, 0.62]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low
Attitude self-control score at 6 months postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.33 [-0.05, 0.71]	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very Low
Attitude boundaries score at 8 weeks postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.00 [-0.45, 0.45]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low
Attitude boundaries score at 6 months postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD -0.05 [-0.40, 0.30]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Empathy score at 8 weeks postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.35 [-0.15, 0.85]	Very Serious[1]	N/A	Serious[2]	Serious[4]	Very Low
Empathy score at 6 months postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD -0.37 [-0.88, 0.14]	Very Serious[1]	N/A	Serious[2]	Serious[5]	Very Low
Adverse sexual beliefs score at 8 weeks postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD -0.42 [-0.91, 0.07]	Very Serious[1]	N/A	Serious[2]	Serious[6]	Very Low
Adverse sexual beliefs score at 6 months postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD -0.51 [-1.05, 0.03]	Very Serious[1]	N/A	Serious[2]	Serious[7]	Very Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Attitude dating violence score at 8 weeks postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD -0.06 [-0.40, 0.28]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low
Attitude dating violence score at 6 months postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD -0.34 [-0.74, 0.06]	Very Serious[1]	N/A	Serious[2]	Serious[8]	Very Low
Rape attitude score at 8 weeks postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD -0.31 [-0.73, 0.11]	Very Serious[1]	N/A	Serious[2]	Serious[9]	Very Low
Rape attitude score at 6 months postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD -0.10 [-0.50, 0.30]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Self-efficacy self-control score at 8 weeks postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.28 [-0.30, 0.86]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low
Self-efficacy self-control score at 6 months postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD -0.19 [-0.79, 0.41]	Very Serious[1]	N/A	Serious[2]	Serious[10]	Very Low
Self-efficacy communication score at 8 weeks postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.25 [-0.24, 0.74]	Very Serious[1]	N/A	Serious[2]	Serious[11]	Very Low
Self-efficacy communication score at 6 months postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.16 [-0.27, 0.59]	Very Serious[1]	N/A	Serious[2]	Serious[12]	Very Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Self-efficacy peer pressure score at 8 weeks postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.18 [-0.37, 0.73]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low
Self-efficacy peer pressure score at 6 months postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.20 [-0.26, 0.66]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low
Social norms score at 8 weeks postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.34 [-0.09, 0.77]	Very Serious[1]	N/A	Serious[2]	Serious[13]	Very Low
Social norms score at 6 months postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.44 [-0.00, 0.88]	Very Serious[1]	N/A	Serious[2]	Serious[14]	Very Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Intention score at 8 weeks postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.27 [-0.20, 0.74]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low
Intention score at 6 months postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.01 [-0.52, 0.54]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low
Outcome expectancies score at 8 weeks postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	**MD 0.66 [0.12, 1.20]**	Very Serious[1]	N/A	Serious[2]	Serious[15]	Very Low
Outcome expectancies score at 6 months postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD 0.03 [-0.36, 0.42]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Self-esteem score at 8 weeks postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD -0.16 [-0.56, 0.24]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low
Self-esteem score at 6 months postintervention								
1 (Van Lieshout 2019)	Parallel RCT	177	MD -0.04 [-0.37, 0.29]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very Low

1. Downgrade 2 levels for very serious risk of bias: Unclear method of randomisation, unclear if allocation concealment. Study states; There was no significant baseline difference on any of the 14 outcome measures (ps ≥ .21), suggesting successful randomization of institutions and participants across intervention and control conditions. Study states: "The implementation of Make a Move appeared to be very challenging and needed to take into account several factors such as the interaction with and between the boys, time constraints, and the fact that the resources and facilities allocated were not always suitable (van Lieshout et al., in press). Differences between the trainers (styles, skills, motivation) are also likely to have played a role in the implementation of the program. Closely linked to adequate implementation (dose delivered) is the dose received by the target group; this also turned out to be very low, in large part because groups were unstable, with many boys missing meetings. Furthermore, issues such as the problematic backgrounds and social power struggles among some boys made it difficult for them to open up and actively participate in the group meetings." it is unclear how any such deviations may have differed between intervention groups. "many boys had problems concentrating long enough to answer the full questionnaire, and that some also had difficulties in fully comprehending the questions. Furthermore, the dropout rate in the intervention group was higher than in the (waiting list) control group". Overall, dropout was very high with >50% missing in either study arm by 6 months follow up.) No blinding procedures described, and outcomes were self-report/subjective. However, these measures appear to be validated.
2. Downgrade 1 level for serious indirectness since study was based in Netherlands

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

3. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.54)
4. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.78)
5. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.62)
6. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.74)
7. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.79)
8. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.64)
9. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.66)
10. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.86)
11. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.72)
12. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.53)
13. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.57)
14. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.67)
15. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.58)

Fostering Changes Programme vs Wait list (WL)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Total problems score at three months postbaseline: assessed using the Strengths and Difficulties Questionnaire (SDQ)								
1 (Briskman 2012)	Parallel RCT	108	MD 0.60 (-2.23 to 3.43)	Serious[1]	NA	Serious[2]	Serious[3]	Very low
Emotional problems score at three months postbaseline: assessed using the Strengths and Difficulties Questionnaire (SDQ)								
1 (Briskman 2012)	Parallel RCT	108	MD 0.10 (-0.84 to 1.04)	Serious[1]	NA	Serious[2]	Not Serious	Low

1. Downgrade one level for serious risk of bias: No blinding and some of the outcomes are subjective.
2. Downgrade one levels for serious indirectness since study was based in USA
3. Downgrade one level for serious imprecision since confidence intervals crossed one line of MID (defined as 0.5*SD in the control group=3.4)

Fostering Changes vs Care as Usual (CAU)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Carer-reported total difficulties score assessed using Strength and Difficulties Questionnaire at 3 months								
1 (Moody 2020)	Parallel RCT	240	**MD -2.30 [-4.20, -0.40]**	Serious[1]	N/A	Not Serious	Serious[2]	Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Carer-reported total difficulties score assessed using Strength and Difficulties Questionnaire at 12 months								
1 (Moody 2020)	Parallel RCT	229	MD -0.30 [-2.25, 1.65]	Serious[1]	N/A	Not Serious	Serious[3]	Low
Carer-reported emotional problems score assessed using Strength and Difficulties Questionnaire at 3 months								
1 (Moody 2020)	Parallel RCT	240	**MD -0.80 [-1.45, -0.15]**	Serious[1]	N/A	Not Serious	Serious[4]	Low
Carer-reported emotional problems score assessed using Strength and Difficulties Questionnaire at 12 months								
1 (Moody 2020)	Parallel RCT	229	MD -0.20 [-0.79, 0.39]	Serious[1]	N/A	Not Serious	Not Serious	Moderate

1. Downgrade 1 level for serious risk of bias: Unclear fidelity to the intervention or if crossover occurred. There was substantial loss to follow up at 12 months (around 20 - 25%) this may be related to problems at home, however proportions of loss to follow up were similar between groups. In addition, this was a pragmatic trial by design and intention to treat was used for analysis.
2. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (0.5* standard deviation in the control group=3.41)
3. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (0.5* standard deviation in the control group=3.48)
4. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (0.5* standard deviation in the control group=1.18)

Incredible Years parent training vs WL

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Child behavioural and emotional problems at 6-month follow up (Eyberg Child Behavior Inventory)								
1 (Bywater 2011)	Parallel RCT	46	MD 10.08 (-10.55 to 30.71)	Very Serious[1]	NA	Not Serious	Very Serious[2]	Very low
Total strengths and difficulties score at 6-month follow up: strengths and difficulties questionnaire								
1 (Bywater 2011)	Parallel RCT	46	MD -1.61 (-6.01 to 2.79)	Very Serious[1]	NA	Not Serious	Serious[3]	Very low

1. Downgrade 2 levels for very serious risk of bias: Randomisation was broken as foster carers were randomly allocated to either condition using a random number generator unless they had commitments ruling out possible attendance at a specific group (n = 6). Some differences observed between groups for length of time foster parent had been fostering. 6 participants chose their group based on convenience which may have been influenced by a wish to get into the active group. Unclear if intention to treat, however loss to follow up was low. No blinding apparent and outcomes are self-report. No indication that outcome assessors were blinded to intervention group and could have influenced the results. However, validated questionnaires were used so this is unlikely.
2. Downgrade 2 levels for serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group=14.8)
3. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=3.27)

Incredible Years for preschoolers vs Wait List control

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Number of children in need of mental health care provision: assessed by foster carer self-report								
1 (Conn 2018)	Parallel RCT	33	OR 0.90 [0.23 to 3.58]	Very Serious[1]	NA	Serious[2]	Very Serious[3]	Very low
Number of children in need of mental health treatment: assessed by foster carer self-report								
1 (Conn 2018)	Parallel RCT	33	OR 1.43 [0.36 to 5.66]	Very Serious[1]	NA	Serious[2]	Very Serious[3]	Very low

1. Downgrade 2 levels for very serious risk of bias: No blinding. Method of randomization not provided and there are differences between the two arms in terms of child age and 'child needs mental health treatment'
2. Downgrade one level for serious indirectness since study was based in USA.
3. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.8 and 1.25 for odds ratios)

ENRICH intervention vs delayed intervention

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Children's physical activity (the 3-Day Physical Activity Recall) - metabolic equivalent (MET) values): mean total METs[4]								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Dominick 2014)	Parallel RCT	261	MD -2.90 [-7.48 to 1.68]	Serious[1]	NA	Serious[2]	Not Serious	low
Number achieving two or more 30-minute blocks of moderate-to-vigorous physical activity: assessed using the 3-Day Physical Activity Recall (3-DPAR) [4]								
1 (Dominick 2014)	Parallel RCT	261	OR 1.43 [0.36 to 5.66]	Serious[1]	NA	Serious[2]	Very Serious[3]	Very low

1. Downgrade 1 level for serious risk of bias: Unclear how randomisation was performed unclear if allocation concealment. Study considered different "waves" of participants; it is unclear if participants moved between the residential care homes under study. However, study states that implementation of PA-promoting environment was independent of assignment to condition. Study used cross-sectional (not follow up) data, therefore recruitment and measurement of outcomes likely occurred at the same time. One randomised residential care home dropped out of the study, however, it is unclear how many participants were part of this care home and whether there were any further missing data. Physical activity outcomes were self-report, assessors were trained but unclear if blinding procedures were applied.
2. Downgrade one level for serious indirectness since study was based in USA.
3. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.8 and 1.25 for odds ratios)
4. Results were adjusted for age, sex, BMI, ethnicity, school onsite, time in home, recreational director, and residential care home.

Natural mentoring intervention vs CAU

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Mindfulness score (Mindfulness Attention Awareness Scale) postintervention								
1 (Greeson 2017)	Parallel RCT	17	MD -0.60 (-1.73 to 0.53)	Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Emotional regulation score (Emotional Regulation Questionnaire) postintervention								
1 (Greeson 2017)	Parallel RCT	17	MD 0.58 [-0.10, 1.26]	Serious[1]	N/A	Serious[2]	Serious[4]	Very low
Mental health score (Mental Health Index) postintervention								
1 (Greeson 2017)	Parallel RCT	17	MD -0.30 [-1.48, 0.88]	Serious[1]	N/A	Serious[2]	Very Serious[5]	Very low
Grit score (12-item Grit Scale) postintervention,								
1 (Greeson 2017)	Parallel RCT	17	MD 0.40 [-0.19, 0.99]	Serious[1]	N/A	Serious[2]	Serious[6]	Very low
Resilience score (12-item Children and Youth Resilience Measure) postintervention								
1 (Greeson 2017)	Parallel RCT	17	MD -0.10 [-0.87, 0.67]	Serious[1]	N/A	Serious[2]	Very Serious[7]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Perceived Future Opportunities scale, postintervention								
1 (Greeson 2017)	Parallel RCT	17	MD 0.10 [-0.25, 0.45]	Serious[1]	N/A	Serious[2]	Very Serious[8]	Very low
Strengths and Difficulties Questionnaire, postintervention								
1 (Greeson 2017)	Parallel RCT	17	MD -0.10 [-0.35, 0.15]	Serious[1]	N/A	Serious[2]	Very Serious[9]	Very low

1. Downgrade 1 levels for serious risk of bias: No blinding and the outcomes are somewhat subjective
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=0.65)
4. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=0.36)
5. Downgrade 2 levels for serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group=0.50)
6. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=0.27)
7. Downgrade 2 levels for serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group=0.38)
8. Downgrade 2 levels for serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group=0.17)
9. Downgrade 2 levels for serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group=0.14)

Staying Connected With Your Teen vs Wait List Control

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Teen report for communication about substance use (author derived measure) at 3 months follow up								
1 (Haggerty 2016)	Parallel RCT	60	MD 0.36 [-0.03, 0.75]	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Caregiver report for communication about substance use (author derived measure) at 3 months follow up								
1 (Haggerty 2016)	Parallel RCT	60	MD -0.25 [-0.94, 0.44]	Very Serious[1]	N/A	Serious[2]	Serious[4]	Very low
Teen report for communication about sex (author derived measure) at 3 months follow up:								
1 (Haggerty 2016)	Parallel RCT	60	MD 0.38 [-0.00, 0.76]	Very Serious[1]	N/A	Serious[2]	Serious[5]	Very low
Caregiver report for communication about sex (author derived measure) at 3 months follow up:								
1 (Haggerty 2016)	Parallel RCT	60	MD -0.20 [-0.82, 0.42]	Very Serious[1]	N/A	Serious[2]	Serious[6]	Very low
Teen-reported alcohol refusal score (author developed scale) at 3 months follow up:								
1 (Haggerty 2016)	Parallel RCT	60	MD 0.04 [-0.12, 0.20]	Very Serious[1]	N/A	Serious[2]	Serious[7]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

1. Downgrade 2 levels for very serious risk of bias: Method of randomization not provided. No baseline characteristics to assess the success of randomization. No blinding and the outcomes are somewhat subjective.
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=0.39)
4. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=0.69)
5. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=0.36)
6. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=0.55)
7. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=0.17)

Life Story intervention vs Wait List Control

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
PTSD/dissociation mean score (CBCL) at postintervention								
1 (Haight 2010)	Parallel RCT	15	MD 0.00 (-5.54 to 5.54)	Very Serious[1]	N/A	Serious[2]	Very Serious[3]	Very low

1. Downgrade 2 levels for very serious risk of bias: No information about method of randomisation, or if allocation concealment occurred. However, no significant differences were observed across study groups for age, gender, length of time in care, supportive counselling, or

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

vocabulary. loss to follow up was largely due to moving away from study, however, unclear reasons for other exclusions. Probable per-protocol approach ("participants who failed to complete" were excluded) with significant attrition across arms: >10%). Missing data is likely to be related to child behaviour and mental health needs (e.g. participants who moved away were excluded). Attrition appeared to be balanced between groups, however unclear reasons for LTFU in every case.). Unclear trial was analysed and performed in accordance with a pre-specified plan (insufficient information).

2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade 2 levels for serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group=3.87)

Mindfulness-based stress reduction vs care as usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Self-reported mental health problems score at postintervention (Pediatric Symptom Checklist-17) number with positive total scores								
1 (Jee 2015)	Parallel RCT	117	OR 0.78 [0.20, 3.11]	Not Serious	N/A	Serious[1]	Very Serious[3]	Moderate
Self-report acceptance and mindfulness score at postintervention (the Child Acceptance and Mindfulness Measures)								
1 (Jee 2015)	Parallel RCT	117	MD 0.60 [-5.47, 6.67]	Not Serious	N/A	Serious[1]	Serious[4]	Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Self-reported stress and anxiety mean score at postintervention (the State-Trait Anxiety Inventory for Children (STAIT)								
1 (Jee 2015)	Parallel RCT	117	MD -2.90 [-9.33, 3.53]	Not Serious	N/A	Serious[1]	Serious[5]	Moderate
Self-reported stress and anxiety mean score at postintervention (the State-Trait Anxiety Inventory for Children (STAIS)								
1 (Jee 2015)	Parallel RCT	117	MD -2.50 [-9.35, 4.35]	Not Serious	N/A	Serious[1]	Serious[6]	Low

1. Downgrade 1 level for serious risk of bias: The age of the comparison groups was considerably different with the participants in the control group apparently much older: 76% 18-21 yo. Unclear how self-report assessments were delivered (e.g. with assistance or not). Outcomes may be subjective and no blinding procedures were apparent.
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade 2 levels for serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.8 and 1.25 for odds ratios)
4. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=5.65)
5. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=6.1)
6. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=6.75)

Peer Mentoring Intervention vs Care as Usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Symptoms of anxiety or depression (scoring >=4 on the General Health Questionnaire) at 12 months post baseline								
1 (Mezey 2015)	Parallel RCT	19	OR 0.83 [0.11, 6.11]	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Emotional health rated ok or better at 12 months postbaseline								
1 (Mezey 2015)	Parallel RCT	19	OR 1.43 [0.08, 26.90]	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Self-harm during 12 months postbaseline								
1 (Mezey 2015)	Parallel RCT	19	OR 10.20 [0.47, 222.45]	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Suicide attempt during 12 months postbaseline								
1 (Mezey 2015)	Parallel RCT	19	OR 2.43 [0.09, 67.57]	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Self-determination (change in Locus of control) since 12 months postbaseline								
1 (Mezey 2015)	Parallel RCT	19	MD 0.70 (-2.97 to 4.37)	Very Serious[1]	N/A	Not Serious	NE[3]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Self-esteem (Self-Esteem Scale) change in self-esteem from 12 months postbaseline								
1 (Mezey 2015)	Parallel RCT	19	MD -2.70 (-7.04 to 1.65)	Very Serious[1]	N/A	Not Serious	NE[3]	Very low
Attitudes to pregnancy: At follow-up, participants were asked to state the youngest age at which they thought it would be all right to have a baby, mean, years								
1 (Mezey 2015)	Parallel RCT	19	MD -0.80 [-2.87, 1.27]	Very Serious[1]	N/A	Not Serious	Very Serious[4]	Very low
Attitude to pregnancy: At follow-up, reported that they would feel happy/excited if they found out they were pregnant now								
1 (Mezey 2015)	Parallel RCT	19	OR 7.00 [0.31, 157.26]	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Physical health rated OK or better at 12 months postbaseline								
1 (Mezey 2015)	Parallel RCT	19	OR 0.14 [0.01, 3.21]	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Used at least one substance during 12 months postbaseline:								
1 (Mezey 2015)	Parallel RCT	19	OR 0.95 [0.14, 6.28]	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Drank alcohol fortnightly or more often during 12 months postbaseline								
1 (Mezey 2015)	Parallel RCT	19	OR 4.00 [0.35, 45.38]	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Drank six or more units on at least one occasion during 12 months postbaseline								
1 (Mezey 2015)	Parallel RCT	19	OR 1.39 [0.22, 8.92]	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Anyone raised concerns over drinking during 12 months postbaseline								
1 (Mezey 2015)	Parallel RCT	19	OR 4.47 [0.19, 106.96]	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Currently smoke regularly 12 months postbaseline								
1 (Mezey 2015)	Parallel RCT	19	OR 1.13 [0.14, 8.99]	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Healthcare interaction during 12 months postbaseline: seen sexual health practitioner								
1 (Mezey 2015)	Parallel RCT	19	OR 0.72 [0.11, 4.62]	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Seen doctor more than 6 times during 12 months postbaseline								
1 (Mezey 2015)	Parallel RCT	19	OR 0.13 [0.02, 1.09]	Very Serious[1]	N/A	Not Serious	Serious[5]	Very low

1. Downgrade 2 levels for very serious risk of bias: Not blinded. The study involves children disclosing details of a very personal nature. The participants might find it easier to tell a white lie than withdraw from the study.
2. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.8 and 1.25 for odds ratios)
3. Downgrade twice as it was not possible to calculate imprecision
4. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (half the standard deviation of the control arm=0.9)
5. Downgrade 1 level for serious imprecision since confidence intervals crossed a line of MID (defined as 0.8 and 1.25 for odds ratios)

Therapeutic playgroups vs care as usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Foster parent-rated emotional regulation at 2 weeks follow up: assessed by Emotion Regulation Checklist								
1 (Pears 2007)	Parallel RCT	20	MD -0.03 (-0.20 to 0.14)	Very serious[1]	N/A	Serious[2]	Very Serious[3]	Very low
Foster parent-rated emotional lability at 2 weeks follow up: assessed by Emotion Regulation Checklist								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Pears 2007)	Parallel RCT	20	MD -0.14 (-0.34 to 0.06)	Very serious[1]	N/A	Serious[2]	Serious[4]	Very low
Assessor-rated emotional lability at 2 weeks follow up: assessed by Emotion Regulation Checklist								
1 (Pears 2007)	Parallel RCT	20	MD -0.41 (-0.65 to -0.17)	Very serious[1]	N/A	Serious[2]	Serious[5]	Very low
Teacher-rated emotional regulation at 1 month following the start of school: assessed by Emotion Regulation Checklist								
1 (Pears 2007)	Parallel RCT	20	MD -0.18 (-0.69 to 0.33)	Very serious[1]	N/A	Serious[2]	Serious[6]	Very low
Teacher-rated emotional lability at 1 month following the start of school: assessed by Emotion Regulation Checklist								
1 (Pears 2007)	Parallel RCT	20	MD 0.22 (-0.26 to 0.70)	Very serious[1]	N/A	Serious[2]	Serious[7]	Very low

1. Downgrade 2 levels for very serious risk of bias: randomisation process not described; unclear if allocation concealment; reasons for participant attrition and missing data not provided; >10% lost to follow up or missing data; teachers and assessors were blinded to the intervention but foster parents were not; unclear that trial was analysed with a pre-specified plan (lots of missing information).
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade 2 levels for very serious imprecision since confidence intervals crossed two lines of minimum important effect (half the standard deviation of the control arm=0.08)
4. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.12)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

5. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.26)
6. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.32)
7. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=0.28)

Cognitively Based Compassion Training (CBCT) vs Wait List control

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Depressive symptoms mean score at postintervention (The Quick Inventory of Depressive Symptomatology – Self-Report)								
1 (Reddy 2013)	Parallel RCT	70	MD 0.05 [-3.20, 3.30]	Very serious[1]	NA	Serious[2]	Serious[3]	Very Low
Anxiety mean score at postintervention (The State-Trait Anxiety Inventory-Trait Subscale)								
1 (Reddy 2013)	Parallel RCT	70	MD -3.41 [-7.58, 0.76]	Very serious[1]	NA	Serious[2]	Serious[4]	Very Low
Hope mean score at postintervention. (Children's Hope Scale)								
1 (Reddy 2013)	Parallel RCT	70	MD 5.30 [-0.76, 11.36]	Very serious[1]	NA	Serious[2]	Serious[5]	Very Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Difficulty with emotional regulation score at postintervention (Difficulties with Emotion Regulation Scale)								
1 (Reddy 2013)	Parallel RCT	70	MD -1.82 [-11.43, 7.79]	Very serious[1]	NA	Serious[2]	Serious[6]	Very Low
Callous and unemotional traits (Inventory of Callous and Unemotional Traits—Youth Self-Report)								
1 (Reddy 2013)	Parallel RCT	70	MD -0.93 [-5.10, 3.24]	Very serious[1]	NA	Serious[2]	Serious[7]	Very Low
Positive and negative emotions about self and others mean score at postintervention (Self-Other Four Immeasurables Scale): positive self-score								
1 (Reddy 2013)	Parallel RCT	70	MD 0.07 [-1.61, 1.75]	Very serious[1]	NA	Serious[2]	Serious[8]	Very Low
Positive and negative emotions about self and others mean score at postintervention (Self-Other Four Immeasurables Scale): negative self-score								
1 (Reddy 2013)	Parallel RCT	70	MD -0.26 [-1.53, 1.01]	Very serious[1]	NA	Serious[2]	Not Serious	Very Low
Positive and negative emotions about self and others mean score at postintervention (Self-Other Four Immeasurables Scale): positive others-score								
1 (Reddy 2013)	Parallel RCT	70	MD -0.54 [-2.14, 1.06]	Very serious[1]	NA	Serious[2]	Serious[9]	Very Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Positive and negative emotions about self and others mean score at postintervention (Self-Other Four Immeasurables Scale): negative others-score								
1 (Reddy 2013)	Parallel RCT	70	MD 0.24 [-1.11, 1.59]	Very serious[1]	NA	Serious[2]	Serious[10]	Very Low

1. Downgrade 2 levels for very serious risk of bias: Unclear method of randomisation. Unclear if allocation concealment. Study reports no differences at baseline however data was not presented. Unclear if deviations from intervention group. Study did not present information on the number of participants assigned to each study arm. In addition, it was not clear whether there was significant missing data across study outcomes. However, "many" participants with missing data were reported for one of the study measures. No indication of blinding procedures and many of the outcomes were self-report/subjective. Poor information reported about the procedures employed in running this trial. No protocol cited.
2. Downgrade one level for serious indirectness since study was based in USA.
3. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=3.26)
4. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=4.42)
5. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=6.29)
6. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=9.33)
7. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=4.94)
8. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=1.75)
9. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=1.68)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
10. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=1.32)								

Videogame Intervention (Dojo) vs Treatment as Usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Self-reported anxiety (SCAS) at postintervention: assessed using the Spence Children's Anxiety Scale								
1 (Shuurmans 2017)	Parallel RCT	41	MD -2.23 [-12.80, 8.34]	Serious[1]	N/A	Serious[2]	Very Serious[3]	Very low
Self-reported anxiety (SCAS) at 4-month follow up: assessed using the Spence Children's Anxiety Scale								
1 (Shuurmans 2017)	Parallel RCT	41	MD -1.61 [-10.09, 6.87]	Serious[1]	N/A	Serious[2]	Very Serious[4]	Very low
Mentor-reported anxiety (SCAS) at postintervention: assessed using the Spence Children's Anxiety Scale								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Shuurmans 2017)	Parallel RCT	41	MD -5.50 [-11.12, 0.12]	Serious[1]	N/A	Serious[2]	Serious[5]	Low
Mentor-reported anxiety (SCAS) at 4-month follow up: assessed using the Spence Children's Anxiety Scale								
1 (Shuurmans 2017)	Parallel RCT	41	MD 0.22 [-5.95, 6.39]	Serious[1]	N/A	Serious[2]	Very Serious[6]	Very low

1. Downgrade 1 level for serious risk of bias: No blinding and many of the outcomes are fairly subjective.
2. Downgrade 1 level for serious indirectness since study was based in Netherlands
3. Downgrade 2 levels for very serious imprecision since confidence intervals crossed two lines of minimum important effect (half the standard deviation of the control arm=8.25)
4. Downgrade 2 levels for very serious imprecision since confidence intervals crossed two lines of minimum important effect (half the standard deviation of the control arm=5.25)
5. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=3.93)
6. Downgrade 2 levels for very serious imprecision since confidence intervals crossed two lines of minimum important effect (half the standard deviation of the control arm=2.86)

Motivational Enhancement Therapy vs Care as Usual

	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Young person-reported hazardous alcohol intake at 12 months assessed using Alcohol Use Disorder Identification Test (AUDIT)								
1 (Alderson 2020)	Parallel RCT	37	OR 2.40 [0.61, 9.38]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported use of alcohol at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool-Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	37	NE (100% in both groups)	Very serious[1]	N/A	Not Serious	NE[3]	Very Low
Young person-reported use of tobacco at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool-Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	37	OR 0.52 [0.08, 3.54]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported use of cannabis at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool-Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	37	OR 1.03 [0.25, 4.24]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported use of cocaine at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool-Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	37	OR 1.65 [0.44, 6.20]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low

	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Young person-reported use of amphetamine at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	37	OR 3.97 [0.83, 18.91]	Very serious[1]	N/A	Not Serious	Serious[4]	Very Low
Young person-reported use of sedative at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	37	OR 1.64 [0.40, 6.76]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported use of hallucinogens at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	37	OR 1.23 [0.26, 5.90]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported use of novel psychoactive substance at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	37	OR 1.93 [0.28, 13.16]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported use of opioid at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	37	OR 2.53 [0.21, 30.68]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low

	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Young person-reported use of inhalent at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool-Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	37	OR 1.20 [0.15, 9.57]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported very low or below average score at 12 months assessed using the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)								
1 (Alderson 2020)	Parallel RCT	37	OR 1.63 [0.42, 6.36]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported high or very high score at 12 months assessed using the Strengths and Difficulties Questionnaire (SDQ)								
1 (Alderson 2020)	Parallel RCT	37	OR 2.10 [0.52, 8.51]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person reported severe or extreme problems at 12 months assessed using the EQ-5D-5L (anxiety and depression score)								
1 (Alderson 2020)	Parallel RCT	37	OR 2.77 [0.44, 17.46]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person reported Time-Line Follow Back- Episodes of heavy drinking (>=5 units in 1 day) in the preceding 30-day period								
1 (Alderson 2020)	Parallel RCT	37	OR 0.65 [0.26, 1.62]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low

	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

1. Downgrade two levels due to very serious risk of bias: The procedures put in place to assess intervention fidelity did not work/were not carried out by practitioners. There is potential for other aspects of the fidelity of the interventions to be compromised. Particularly it was unclear if practitioners were trained in both intervention types which may have lead to some cross-over of approaches. Proportions of missing data didn't vary hugely between groups, however it was very large and likely that adherence to follow up was related to risk of negative outcomes.
2. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as OR 0.8 or OR 1.25).
3. Downgraded twice as imprecision was not estimable
4. Downgrade two levels for serious imprecision since estimate of effect crossed 2 lines of MID (defined as OR 0.8 and OR 1.25).

Social Behaviour and Network Therapy vs Care as Usual

	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Young person-reported hazardous alcohol intake at 12 months assessed using Alcohol Use Disorder Identification Test (AUDIT)								
1 (Alderson 2020)	Parallel RCT	43	OR 0.44 [0.13, 1.52]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported use of alcohol at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool-Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	43	NE (100% in both groups)	Very serious[1]	N/A	Not Serious	NE	NE

	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Young person-reported use of tobacco at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool-Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	43	OR 0.40 [0.07, 2.34]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported use of cannabis at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool-Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	43	OR 0.67 [0.19, 2.38]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported use of cocaine at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool-Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	43	OR 0.52 [0.13, 1.99]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported use of amphetamine at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	43	OR 2.48 [0.54, 11.28]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported use of sedative at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool-Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	43	OR 0.63 [0.14, 2.77]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low

	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Young person-reported use of hallucinogens at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	43	OR 0.60 [0.12, 3.08]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported use of novel psychoactive substance at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	43	OR 1.35 [0.20, 9.02]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported use of opioid at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	43	OR 0.86 [0.05, 14.77]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported use of inhalent at 12 months assessed using the Alcohol, Smoking and Substance Involvement Screening Tool- Youth (ASSIST-Y)								
1 (Alderson 2020)	Parallel RCT	43	OR 0.41 [0.03, 4.88]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person-reported very low or below average score at 12 months assessed using the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)								
1 (Alderson 2020)	Parallel RCT	43	OR 1.06 [0.27, 4.19]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low

	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Young person-reported high or very high score at 12 months assessed using the Strengths and Difficulties Questionnaire (SDQ)								
1 (Alderson 2020)	Parallel RCT	43	OR 0.82 [0.22, 3.13]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person reported severe or extreme problems at 12 months assessed using the EQ-5D-5L (anxiety and depression score)								
1 (Alderson 2020)	Parallel RCT	43	OR 1.35 [0.20, 9.02]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low
Young person reported Time-Line Follow Back- Episodes of heavy drinking (>=5 units in 1 day) in the preceding 30-day period								
1 (Alderson 2020)	Parallel RCT	43	OR 1.10 [0.44, 2.76]	Very serious[1]	N/A	Not Serious	Very Serious[2]	Very Low

1. Downgrade two levels due to very serious risk of bias: The procedures put in place to assess intervention fidelity did not work/were not carried out by practitioners. There is potential for other aspects of the fidelity of the interventions to be compromised. Particularly it was unclear if practitioners were trained in both intervention types which may have lead to some cross-over of approaches. Proportions of missing data didn't vary hugely between groups, however it was very large and likely that adherence to follow up was related to risk of negative outcomes.
2. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as OR 0.8 or OR 1.25).

Mentalisation-Based Therapy vs Usual Clinical Care

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Foster-carer reported Strengths and Difficulties score at 12 weeks: assessed using the Strengths and Difficulties Questionnaire								
1 (Midgley 2019)	Parallel RCT	36	MD -1.7 (-5.8, 2.4)[1]	Not Serious	N/A	Not Serious	Very Serious[2]	Very low
Foster-carer reported Strengths and Difficulties score at 24 weeks: assessed using the Strengths and Difficulties Questionnaire								
1 (Midgley 2019)	Parallel RCT	36	MD -3.1 (-8.2, 1.9)[1]	Not Serious	N/A	Not Serious	Serious[3]	Very low
Young person reported Strengths and Difficulties score at 12 weeks: assessed using the Strengths and Difficulties Questionnaire								
1 (Midgley 2019)	Parallel RCT	36	MD 4.9 (-1.0, 10.8)[1]	Very Serious[4]	N/A	Not Serious	Serious[5]	Very low
Young person reported Strengths and Difficulties score at 24 weeks: assessed using the Strengths and Difficulties Questionnaire								
1 (Midgley 2019)	Parallel RCT	36	MD 4.2 (-0.8, 9.3)[1]	Very Serious[4]	N/A	Not Serious	Serious[6]	Very low

1. Adjusted for baseline SDQ and Foster Carer Reflective Function
2. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (half the standard deviation of the control arm=2.3)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
3. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=3.5) 4. Downgrade 2 levels for very serious risk of bias (For youth-reported outcomes only. Low for carer-reported outcomes): For young person-reported outcomes around a third were missing from follow up in the intervention group and almost a half in the usual care group. Mental health and follow up are likely related. 5. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=3.85) 6. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=3.1)								

kContact vs Services as Usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Carer-reported strengths and difficulties score at 9 months: measured using the Strengths and Difficulties Questionnaire								
1 (Suomi 2020)	Parallel RCT	123	MD 1.72 [-0.80, 4.24]	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Caseworker-reported parent potential for child abuse measured by Brief Child Abuse Potential inventory								
1 (Suomi 2020)	Parallel RCT	123	MD 2.58 [-0.42, 5.58]	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

1. Downgrade 2 levels for very serious risk of bias: Reasons for missing data were not clearly explained, nor was missing data considered for its importance statistically. Amount of missing data appeared to be substantial for certain outcomes. Outcomes could have been affected by knowledge of intervention received, outcome assessors appeared to be unblinded.
2. Downgrade 1 level for serious indirectness since study was based in Australia
3. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=3.65)
4. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=3.02)

Qualitative evidence

Experience of looked after children, carers, drug and alcohol workers, and social workers regarding Motivational Enhancement Therapy (MET) and Social Behaviour and Network Therapy (SBNT) (Alderson 2019)

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Trust and genuine care: The qualities of trust and genuine care were the two main sub-themes that emerged regarding what underpinned a successful therapeutic relationship. Participants, inclusive of professionals and LAC themselves highlighted the importance of building a therapeutic relationship when working to reduce substance misuse.	1	**No concerns** Study was low risk of bias	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
Need to earn trust to gain confidence: The LAC's ability to confide in professionals and trust the substance	1	**No concerns** Study was low risk of bias	**No concerns**	**Serious concerns**	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
misuse practitioner was a recurrent theme. Whilst trust is recognised as a necessary condition for any caring relationship, it was reported to be particularly important for LAC, whose experiences leading up to their placement in care may have impacted upon their ability to trust others. Professionals acknowledged that LAC often experience disorganised and difficult attachment. This included repeated experiences of their essential needs going unmet, relationship breakdown and abandonment, being let down and broken promises. Professionals displayed a clear understanding of these complex attachment issues and discussed the need to 'earn' trust when engaging with LAC.				Only one study contributed to this theme	Study was UK-based	
Availability: Practitioners were expected to act in particular ways in order to demonstrate their trustworthiness. Typically this involved the practitioner being reliable; a quality which practitioners reported could be communicated to the LAC in multiple ways within the interaction. One foster carer describes displaying their reliability in terms of being available 24/7, he is permanently 'on call' if a young person needs him.	1	**No concerns** Study was low risk of bias	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
Reliability: Professional and LAC participants reported that the practitioner's reliability must be consistent as any inconsistency is likely to build mistrust.	1	**No concerns** Study was low risk of bias	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
Time for building rapport and two-way disclosures: From the perspective of LAC, engaging with services depends fundamentally on the relationship between themselves and their allocated worker. To facilitate the sense of a reciprocal trustworthy	1	**No concerns** Study was low risk of bias	**No concerns**	**Serious concerns**	**No concerns** Study was UK-based	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
relationship, young people explained the importance of 'working gradually', wherein at least the first couple of interactions should be dedicated to building a rapport and 'engaging' the young person prior to formal sessions commencing. Additionally, this could be shown by professionals not expecting young people to instantly make disclosures, but allowing a positive working relationship to develop first. Self-disclosures where practitioners 'trade' personal information were perceived to be beneficial to developing a trusting relationship, whereby the process of sharing information was not completely one sided. Some, examples that young people provided for this were discussing a hobby that the practitioner enjoyed doing or talking about a pet they had. This level of disclosure enable a small 'trade' of personal information to be made without divulging any sensitive personal information. LAC reported that such disclosure enhanced their sense of connection to the practitioner as well as their own safety to disclose information.				Only one study contributed to this theme		
Genuine not contractual care: A further quality that LAC sought but did not always feel that they received was that of 'genuine care'. LAC described having multiple contacts with professionals, with much of the care a child usually receives from a loving family being provided by a professional who is employed to provide such care. The corporate parenting role dictates that safeguarding and risk management take precedent over the provision of emotional support. However, many social workers described going 'above and beyond' their role and being available outside of their contracted working hours in an attempt to show they care for the young people in their care. LAC were acutely aware of the corporate parenting role fulfilled by the professionals	1	**No concerns** Study was low risk of bias	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
and highlighted the importance of practitioners (professionals and foster carers) whom made them feel like they 'genuinely' cared about their welfare. Despite being in a paid position to provide care for young people, foster carers reinforced their attempts to provide the same level of care and support to the children and young people they foster/care for in the same way they would treat their own biological children. For LAC, Genuine care involves professionals 'being available' when needed, showing empathy, perseverance and providing support (emotional and practical) which feels unconditional. For the young people, genuine care was described as stemming from personal investment rather than a professional obligation or remuneration.						
Sensitive and non-judgmental response: From the perspective of LAC, a further way of professionals showing that they cared for a young person was to take a non-judgemental approach and to show unconditional positive regard to the young people under their care regardless of the information they were disclosing. This was reinforced by professionals and foster carers, whom reported LAC disclosing information to them regarding historical experiences. Foster carers described having to respond in a sensitive and non-judgemental way.	1	**No concerns** Study was low risk of bias	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
Traditional one-to-one counselling style interactions are often unproductive for LACYP: Typically this was experienced as overly formal for LAC who might find this type of interaction difficult to engage with. Young people commented on how they found it harder to participate in 'traditional' formally structured sessions.	1	**No concerns** Study was low risk of bias	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Need for therapeutic practitioners to work creatively and use visual strategies. The ability for practitioners to work creatively and use visual strategies such as the 'node-link mapping' used in the International Treatment Effectiveness Project (ITEP) and mood cards whilst staying true to the intervention delivery was deemed a successful strategy to engage LAC. Many LAC wanted other strategies and approaches to be used to help them connect with professionals, maintain concentration and become more involved in sessions.	1	**No concerns** Study was low risk of bias	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
Explicit upfront acknowledgement of the complexities of life in the care system when addressing drug and alcohol addiction (bespoke and holistic care): A further approach deemed necessary when working with LAC was to explicitly acknowledge the complexities of their life due to them being in the care system. This enables a holistic approach to be taken within sessions. LAC identified it was important that goals did not focus solely around substance use. They valued discussions that recognised the difficulties occurring within their lives and facilitated a personalised approach to be taken to meet their needs. Professionals also clearly identified that a bespoke approach has to be taken.	1	**No concerns** Study was low risk of bias	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
Frequent placement changes resulting in inconsistent and fragmented (Gaps) support networks and unhealthy or unconventional support networks e.g. in interventions for substance abuse there is a need for treatment goals to be wider than substance use alone Frequent placement changes resulted in inconsistent and fragmented support networks for LAC. The transient nature of the	1	**No concerns** Study was low risk of bias	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
LAC population can result in young people being eager to find friends even if that results in becoming involved in unhealthy friendships. The central part that social interaction and support for change plays in any resolution of substance misuse problems. The challenges of finding appropriate network members was explored, in many interviews LAC struggled to identify someone they felt they could turn to, feelings of not having support or the need to be self-sufficient was verbalised. When young people did identify positive support, it was often people outside of the traditional family support network as would be expected within the LAC population. This in itself could be challenging due to the identified sources of support often being professionals whose ability to provide ongoing or out of hours support is not always practical as would be possible from a more traditional family member.						
Looked after children's inability, at times, to recognize support	1	**No concerns** Study was low risk of bias	**Minor concerns** The theme did not provide a convincing theoretical explanation (too brief)	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
In interventions the need to include criteria for a ‘network member’ was made more flexible to enable less traditional members to engage with sessions and act as a support	1	**No concerns** Study was low risk of bias	**Minor concerns** The theme did not provide a convincing theoretical explanation (too brief)	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low

Experience of residential social workers and youth in residential care using a computer game-based therapeutic intervention (Aventin 2014)

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Acceptable but "not like therapy" Although one young person said that he "hated" the game (Youth 3), the remainder of staff and young people at Long-term I who used the intervention expressed positive views regarding its acceptability, noting only minor dissatisfaction with issues such as the length of time needed for preparation. At Long-term I, the intervention as a whole was viewed as: "good" (Youth 1) "really good" (Youth 2); "something different", "interesting" (RSW 1); and "fun" (RSW 3). One RSW suggested that one of its major strengths was that it did not appear overtly therapeutic.	1	**Moderate concerns** One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** Some contradiction and lack of clarity about what users found to be useful about the intervention.	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
Not suitable for those who are recently feeling unsettled or those with learning disabilities Shortly after implementation had begun, the Team Leader of the Intensive Support Unit withdrew participation stating that she felt it was not an appropriate time to continue with the study due to an unsettled period relating to a change of young people in the home. She also stated that the intervention was not suitable for the young people who had learning disabilities, with the two RSWs who engaged in one session with these young people saying that the youth had difficulties operating the controls or focusing on the goals of the game.	1	**Moderate concerns** One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
Lack of effectiveness of the skills training portion At Long-term II, the participating staff indicated dissatisfaction with the skill coaching component, a perceived lack of fit with the	1	**Moderate concerns** One study at high risk of bias. Interview	**Minor concerns**	**Serious concerns**	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
adolescents' needs, and the general lack of motivation to engage on the part of adolescents. The RSW who took part in a post-intervention interview said that while he thought the intervention was novel, he did not find it appropriate for use at the home because he felt the game was not street-wise enough for 'high risk' adolescents and more suitable for younger children. Additionally, he did not consider it to be consistent with the participating young person's (Youth 4) needs.		methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	Unclear what is meant by the intervention not being "street wise" enough. Unclear why the intervention did not fit needs.	Only one study contributed to this theme	Study was UK-based	
Variability of individual engagement Some RSWs at Long-term II felt that the characteristics of the individual adolescents would impact on their engagement. During the training many stated that they did not think their young person would engage easily due to a lack of motivation, lack of interest in computer games or because they would simply not commit to any kind of therapeutic work. They indicated that, even if they did engage, it would not be for an extended period.	1	**Moderate concerns** One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
Engagement only with playing the video game For the adolescents at Long-term I, the game was the intervention and none of them seemed to attach much significance to the social worker's presence or attempts at skill coaching. Two of the three young people expressed generally positive attitudes and said they had found the game educational.	1	**Moderate concerns** One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Difficulty trying to encorporate the skills component Unlike the staff and young people at Long-term I, neither the RSW nor youth at Long-term II found the skill coaching acceptable. RSW 4 said he had to withdraw attempts at communicating with Youth 4 when he became angry. Youth 4 expressed a similar view, suggesting that it was "annoying" to have "someone looking over [his] shoulder" and asking "stupid questions". However, The skill coaching component was deemed acceptable by all staff and young people at Long-term I. One of the pairs (RSW 1 and Youth 2) said they were both comfortable sitting down together and RSW 1 said there was "nothing" hewould change about this aspect of the intervention because it was something they would do together quite often. Youth 2 said RSW 1's presence kept his "mind focused" while Youth 3 indicated satisfaction with his key-workers presence by saying it was a "sound auld job". One RSW thought skill coaching was very much in line with his usual way of working:	1	**Moderate concerns** One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** Some contradictions	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
Other potential uses of the game - diversion and shared activity – An unexpected finding was that, in the long-term units, participants saw the value of the game beyond coaching emotion regulation skills. More specifically, staff saw it as a tool for engaging in one-to-one work with a variety of different goals linked to their perceptions of the current needs of the adolescents and the core function of the units: preparation for life after care through independent living skill coaching and diversion from risk-taking behaviour. Although intended to be used for coaching emotion regulation skills, none of the participants at Long-term I saw this as the game's primary use. Rather, adolescents considered it an enjoyable way of passing the	1	**Moderate concerns** One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** The primary impact of this intervention seemed to be disparate. Some lack of consistency in terms of how the game was beneficial.	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
time, a means of spending quality, one-to-one time with their key-worker and (given the 'practical' everyday life tasks involved in the game) as a valuable tool for learning independent living skills. RSWs talked about the intervention as a fun-based, engaging tool for getting to know adolescents; identifying deficits in emotion regulation skills; discussing 'real life' difficulties in a less threatening way; spending quality time with the young person; and engaging them more generally in therapeutic work. One RSW thought that it offered a different tool for engaging in one-to-one work the young person. One RSW thought that the game would be useful for getting to know her key-child who had just recently moved into the unit.						
Uses for diverting from risk-taking behaviour – At Long-term II, RSW 4 felt the game alone was a useful tool for diverting Youth 4 from risk-taking behaviour. While, on the one hand, the RSW at Long-term II said that he did not think the intervention was appropriate for older teenagers, he conceded on the other hand that the game was useful for diverting Youth 4 from risk taking behaviour and that it had served to help him modulate his anger.	1	**Moderate concerns** One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** The primary impact of this intervention seemed to be disparate. Some lack of consistency in terms of how the game was beneficial.	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
Preparation for independent living? Similarly, another felt it would be useful for teaching his key-child about independent living skills, as he was going to be leaving the unit within the next couple of months. A third RSW thought the game would be useful for learning about the young person's priorities and seeing how patient they were. The four adolescents	1	**Moderate concerns** One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation,	**Minor concerns** The primary impact of this intervention seemed to be disparate. Some lack of	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
who took part in post-intervention interviews had different perceptions of the value of the intervention. Unlike the RSWs at Long-term I, both Youth 1 and Youth 2 saw its primary use for getting them to think about independent living skills. Youth 2 felt it gave him insight into what life would be like when he was living independently.		respondent validation, or the use of more than one analyst.	consistency in terms of how the game was beneficial.			
Therapeutic impact was through improved relationships – While little therapeutic impact would be expected given the limited exposure to the intervention, and lack of fidelity to the implementation protocol, the RSWs noted its potential for engaging adolescents in therapeutic work and building relationships. Some of the participants felt the intervention had had an impact on the relationship between the social worker and the young person.	1	**Moderate concerns** One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
Barriers - Lack of time, inappropriate timing, the volatility of the life space, and the changing needs of the adolescents emerged as core findings Additionally, the characteristics of individual adolescents and RSWs were implicated as barriers to engagement, central amongst which was lack of interest and motivation to engage in therapeutic work. RSW 1 noted that Youth 2 had “a lot going on” in his life at the time of implementation and although they seized opportunities whenever possible, other priorities relating to the youth's imminent move to independent living took precedence. The characteristics of RSWs themselves were mentioned as potential barriers to successful implementation. In particular, RSW 1 noted the importance of	1	**Moderate concerns** One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** Several barriers worked together leading to the ineffectiveness of this intervention	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
whether or not the staff member had a preference for the practical aspects of their work rather than the therapeutic. Additionally, however, RSW 1 indicated that implementation might conflict with the RSW's role of disciplinarian and parent figure. At Long-term II, RSW4 also talked about the disjuncture between the focus and structure of the intervention and current ways of working with Youth 4. At Long-term II, RSW 4 thought the overtly therapeutic focus of the intervention, plus past negative experiences with professionals, were barriers for Youth 4.						
Facilitators – RSW3 suggested that supervision, and the inclusion of the intervention as part of the work plan were essential for successful implementation. She said the researcher's input had kept her focused on the task. At Long-term I, RSW 1 said that successful implementation would depend on the characteristics of the individual young person and their relationship with the key-worker and indicated that the work that could be achieved depended to large degree on Youth 2's mood.	1	**Moderate concerns** One study at high risk of bias. Interview methods were not made explicit; no clear description of thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low

Experience of foster carers, social workers, and trainers regarding Fostering Changes

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Quality of the training – The majority of foster carer and social worker comments on the trainers were positive, describing their warmth, responsiveness, humour, expertise, knowledge and experience. They valued the quality of the trainers' working relationship with each other and with	1	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
the group {R4}. Two of the foster carers however felt that at least one of their trainers did not listen to the group and a social worker described how one of their trainers tended to dominate rather than listen. The trainers delivering Fostering Changes (who all had a social work background) felt well prepared by their five-day training in the program but also recognised the necessity of previous experience in group work to maintain the quality of the program.						
Training environment The courses were held in a variety of settings such as community centres, local authority or fostering agency offices. Many of the foster carers commented on problems with the venue including access, having to keep the noise down because of other activities in the venue, equipment not being available, last minute changes of room or venue and having a room too small for the group.	1	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	Very Low
Composition of the group – The carer diversity featured regularly in the trainers' reflections, both in terms of promoting implementation but also as a potential barrier. Generally, the trainers and social workers felt that having a mix of levels of experience of fostering was helpful as each carer brought something different to the group. Trainers specifically identified the benefits of attending for kinship carers because they had not had a lot of training or exposure to other foster carers. However, in some instances, that meant the training had to be pitched differently due to a lack of background knowledge e.g. kinship carers often having had less training on attachment or raising different issues e.g. kinship family dynamics. Mixing kin carers with other foster carers meant overcoming some barriers of perception at the start but it offered opportunities for reciprocal	11	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
learning for all foster carers. There were some hesitations expressed by foster carers about the presence of a social worker in the group as they felt it might restrict the discussions. However, it seemed that generally this was positively received by social workers and foster carers as a way of breaking down barriers and moving away from a "them and us" situation, with some wishing social workers from their agency could attend.						
Group support The group support was a key positive from the foster carers' reports. The length of the course, giving the group time to get to know each other made a big difference to this sense of community. The mutual understanding and commonalities of experience brought the group together and supported each other through some challenging times, including when the strategies taught do not work.	1	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	Very Low
A place of safety Several foster carers referred to the group as a place of safety where they felt they could talk openly without concerns about sharing information and also being judged, a theme that was also reflected in the social worker feedback.	1	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	Very Low
Feeling valued by the trainers and the group Foster carers' description of a feeling of recognition from the trainers and the group that they were important as individuals and valued in their role as a foster carer. The experienced foster carers also felt they had something to offer the newer foster carers.	1	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	Very Low
Consolidating and refreshing knowledge – giving a name to it – For many of the foster carers much of the information in the course was not new but it gave them an opportunity to consolidate what they knew, to give it structure, to provide some evidence and to	1	**No concerns**	**No concerns**	**Serious concerns**	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
formalise their knowledge in a way that was helpful. The trainers identified that some foster carers, who already felt that they knew the program content, realised that they had not grasped the concepts properly previously and this course helped them improve and extend their practice:				Only 1 study contributed to this theme.		
Home practice - The logic model includes specific activities e.g. giving effective praise, but not the methods by which those activities are achieved. One of the key approaches was that the group were asked to practise implementation between the weekly sessions. The foster carers really valued this continuity from the work in the group to the home practice, then the feedback at the following week's session. This model motivated foster carers to try something different e.g. reducing confrontation, increasing praise, and at times experiencing progress. One foster carer also suggested the practice helped people engage in a more active, personal way, making the course work for them.	1	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	Very Low
Confidence building and advocacy Foster carers referred to the positive impact of the course on their confidence in their actions, affirming that what they themselves thought was good practice was also viewed that way by others. This was not just in relation to behaviour management but also confidence to deal with the wider system, including being more confident taking on an advocacy role for their foster child. The confidence-building impact of the course was also identified by the social workers.	1	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	Very Low
Change in approach - The content of the course encouraged taking a more	1	**No concerns**	**No concerns**	**Serious concerns**	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
understanding, less confrontational approach and many of the foster carers described having learned new ways of dealing with behaviours and situations, including praise and distraction.				Only 1 study contributed to this theme.		
Barriers to positive impact There were two themes in the foster carers' experience of the course that could be barriers to the effectiveness of the training in bringing about change. Both related to a perceived poor fit between the foster carers' needs and what the course offered: One in terms of the pitch of the information and the other to what foster carers experienced as an inadequate response from trainers to foster carers trying to manage particularly challenging behaviour. Pitch - simplicity of information - Some of the foster carers and social workers felt that the information provided was too basic, reflecting things foster carers already know and not always adequate in the face of the challenges they were experiencing. One foster carer reflected this in suggesting that there needed to be two levels of course, for the new and for the more experienced foster carers. One social worker identified that the simplicity could potentially be helpful. The trainers were concerned when those who have been fostering for a while might identify the content as simple and feel they have nothing to learn. As well as describing the information as basic, many felt that the strategies were suited to younger children and that by having foster carers of mixed age groups, the pitch was inevitably too simplistic to cover everyone's situation. However, it was also acknowledged that most foster carers will be caring for children of different ages so the mix might be appropriate in that context and also, as identified by a social	1	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
worker attendee, there is often a difference between the child's chronological and developmental age so their functioning also needs to be taken into account. Glossing over - One foster carer spoke very passionately about the fact that the course was not meeting the needs of those dealing with very challenging behaviours at home: As well as the information being too basic, the extent of the challenge was not acknowledged by the trainers and their difficulties glossed over:						
Relationships between foster carers and the agency – The descriptions of the foster carers' relationships with the fostering agency really varied. A few described an excellent working relationship. Many reported that the social workers were often overstretched, lacking experience and cutbacks had meant the service was stretched to the limit, including inadequate levels of support and supervision for foster carers. One foster carer felt blamed by the agency, that there was an imbalance of power and lack of mutuality.	1	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	Very Low
Perceived value of training - Training is a key point of contact between the foster carers and the agency. The foster carer reports of training act as a touchstone for their view of their role and how they feel the agency treats them. For those who want to be regarded as part of the professional team, there is a sense of frustration at the lack of emphasis on training and a lack of accountability for those who are not attending even for mandatory training. For others they feel their natural parenting skills were good enough so training is not necessary. The way some agencies managed training generally (not Fostering Changes) made it seem to foster carers that their training was not valued e.g.	1	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
trainers not turning up, inexperienced trainers, sessions being cancelled at the last minute, lack of information and practical things like no venue or refreshments leaves foster carers who have made the effort, feel unappreciated. Social workers were aware of the amount of work that often had to go into engaging carers with training: The trainers talked about the complexity of recruiting foster carers for group work like Fostering Changes with a specific target number and eligibility criteria. The challenges included competing demands within the Local Authority/Fostering agency team but also misinformation from the agency to the foster carers about Fostering Changes, including practical things like start times, number of sessions and the reason for them to go, ranging from a punitive re-education to a much more positive celebration of their skills.						

Experience of looked after adolescents in a secure accommodation facility using a Group-Based Psychosocial Trauma Recovery Program (Barron 2017)

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
What adolescents liked about the intervention: Relaxing (n = 7); All activities (n = 6); Safe place (n = 4); Drawing (n = 2); Tapping (n = 1) Smelling (n = 1) Bad picture to good picture (n = 1) Being in a group (n = 1) Talking about things (n = 1) Comparing feelings then and now (n = 1).	1	**Minor concerns** One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
What adolescents learned from the intervention: Talking about feelings (n = 2) How to cope (n = 2) If annoyed, breathe and think about something else (n = 2) How to deal with difficult images, to keep them in the past (n = 2) How to put thoughts to the side (n = 2) Hear different points of view (n = 1) Beneficial to talk/not talk about (n = 1)	1	**Minor concerns** One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
What adolescents found challenging in the intervention: Not like groups (n = 6) Breathing, drawing and safe place (n = 3) Visual imagery (n = 2) Other adolescents' behavior (n = 1)	1	**Minor concerns** One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
Future direction the adolescents felt the intervention could take: One to one TRT (n = 3) Individual work after group work (n = 1) More sessions (n = 1) Others need to open up more (n = 1) Not so much visualization (n = 1)	1	**Minor concerns** One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for the patterns	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
			found was not provided.			
What the workers liked about the intervention: Valuable contributions from adolescents (n = 27) Individual and group activities (n = 12) Imagery, graded exposure, fear thermometer, safe place, fun (n = 5) Emphasize purpose of the activity (n = 4) Visual materials to aid imagination (n = 4) Small groups & short sessions (n = 3)	1	**Minor concerns** One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
What the workers felt adolescents learned about through the intervention: Normalization through shared experience (n = 9); Increased sense of control (n = 8); Re-visit learning in units (n = 7); Better understanding of trauma and symptoms (n = 6); Symptoms reduced (n = 4); Range of tools to apply in life (n = 4)	1	**Minor concerns** One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
What the workers themselves learned about through the intervention: Extent of trauma (n = 10); Recognizing trauma events and symptoms including in reports (n = 9); Trauma lens report writing (n = 6); Trauma recovery strategies (n = 4); Helping agencies recognize trauma (n = 4); Revisiting learning for adolescents (n = 4); Cautious re asking about trauma (n = 3) Embed TRT into practice (n = 3); Trauma not recognized or met (n	1	**Minor concerns** One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation,	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
= 3); Change is not linear (n = 1)		or the use of more than one analyst.	the patterns found was not provided.			
What the workers found challenging in delivering the intervention: Adolescent behavior (n = 17); Limited verbal contributions (n = 11); Liaison with care staff (n = 9); Uncertainty of adolescent response (n = 8); Need for follow-up to apply skills (n = 6); TRT delivery needed adapted (n = 5) Adolescents could respond to different activities on different days (n = 4)	1	**Minor concerns** One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low
The future direction the workers felt the intervention could take: Liaising with care staff essential (n = 14); Encourage peer support (n = 10) Fun activites; visual aids and attractive workbook (n = 7) Selection and grouping important (n = 3) Shorter and more frequent sessions (n = 3)	1	**Minor concerns** One study at moderate risk of bias: unclear description of approach to thematic analysis; No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.	**Serious concerns** Only one study contributed to this theme	**No concerns** Study was UK-based	Very Low

Experience of foster parents and facilitators regarding Incredible Years (Conn 2018, Bywater 2011)

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Overall satisfaction with Incredible Years Foster carers were generally satisfied with the programme, enjoyed	2	**No concerns**	**No concerns**	**Moderate concerns**	**Minor concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
the experience and gave positive comments about the programme supporting their management and improvement of child behaviour. Particular aspects that were found to be useful included peer support, understanding trauma, the value of play, and skills to encourage positive behaviours.		Studies contributing to this theme were low and high risk of bias. The high risk study did not clearly describe the how participants were selected, how interviews were conducted, or how thematic analysis was performed. No triangulation, or respondent validation was used. Unclear if more than one analyst used.		Only 2 studies contributed to this theme.	One study was from outside of the UK	
Lengthening the programme to include more content Suggestions to lengthen the programme to 14 weeks to include more on 'play' and 'problem-solving' sessions given that some children were perceived as missing basic 'building blocks' from their early social and emotional development because of a lack of personal interactions in their earlier years. Facilitators echoed the carers' recommendations in lengthening the programme to spend more time on play and problem solving.	1	**Serious concerns** This high-risk study did not clearly describe the how participants were selected, how interviews were conducted, or how thematic analysis was performed. No triangulation, or respondent validation was used. Unclear if more than one analyst used.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns**	Very Low
An intervention tailored to foster carers as a unique population Foster carers welcomed the opportunity to attend a parenting	1	**Serious concerns**	**No concerns**	**Serious concerns**	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
programme run specifically for them as a unique population. They felt more able to share their experiences, difficulties and concerns regarding their role, and their relationship with the child they were looking after, in this confidential environment. Facilitators found the programme more challenging to deliver than usual because of the large age range of children under consideration (2–17 years), more tailoring by age may be neccesary.		This high-risk study did not clearly describe the how participants were selected, how interviews were conducted, or how thematic analysis was performed. No triangulation, or respondent validation was used. Unclear if more than one analyst used.		Only one study contributed to this theme		
The need for facilitators to have a greater knowledge of the complex issues and legislation surrounding the care of looked after children Carers suggested programme delivery would benefit from facilitators possessing more knowledge and understanding of the complex issues and legislation governing the care of looked after children, especially when discussing appropriate reward systems for looked after children, for example, hugs or financial incentives, may be inappropriate for some children. Facilitators were from a variety of backgrounds with varying degrees of experience of delivering the programme, but all agreed that knowledge of foster caring procedures would be advantageous to delivering the programme to this sample to fully understand arising issues, for example, what is and is not considered acceptable as 'rewards' for looked after children. Facilitators also found the programme more challenging to deliver than usual because the fact	1	**Serious concerns** This high-risk study did not clearly describe the how participants were selected, how interviews were conducted, or how thematic analysis was performed. No triangulation, or respondent validation was used. Unclear if more than one analyst used.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
that foster carers viewed the programme as additional training for their profession and therefore were more vocal and questioning than parents in general.						
Need for validation - the value of peer support Unique peer support from other foster parents. One general theme that emerged repeatedly within each of the three focus groups was the value of peer support. In fact, this theme emerged so strongly, it may be the most important contributor to foster parents' satisfaction with the intervention, and renewed satisfaction with their role. Foster parenting is a unique and at times difficult role that only other foster parents may truly understand. Several of these foster parents' reported an actual change in their desire to foster as a result of the intervention. In addition to the many benefits from peer support, something deeper seemed to occur that could have a long-term impact on not only the children in their care, but their future as a foster parent.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Study was from a non-UK country	Very Low
New perspectives understanding trauma Parents noted changes in the way they viewed the children they cared for. For example, many parents reported a clearer understanding of the impact of trauma on child development. Parents believed this new understanding of trauma enabled them to view the needs of the child differently, leading them to value more the importance of just “being a child.”	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Study was from a non-UK country	Very Low
Parents as playmates: new perspectives on the value of play As a result, parents prioritized the Incredible Years skill of “child directed play” and saw great value in implementing the prescribed daily play time. Foster parents' style of play has been permanently altered. Parents typically allow the children to do more of the	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Study was from a non-UK country	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
leading while playing, and direct the child only when they feel it is absolutely necessary. This crucial aspect of the program, while difficult to implement at first, is an aspect that most parents incorporated as a key parenting value that has sustained over time.						
Parents as mechanics - tools for positive parenting Foster parents learned many different skills to build positive behaviors so they would have a toolbox to draw from in any given situation. Foster parents told us they found most of these skills effective, and seeing tangible changes in child behavior is not only a benefit, but also a motivator to continue utilizing the newly learned skills. The foster parenting program impacted foster parents attitudes toward implementing rules, and the skills learned regarding clear rules and limit setting can generally be maintained on a daily basis, over a long period of time. The foster parenting program has helped foster parents effectively ignore their children's' unwanted behaviors, and the use of this technique has led to a decrease in negative behavior in the children that has lasted for a long period of time.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Study was from a non-UK country	Very Low

Experience of carers and HEAL co-ordinators using the HEAL programme (Health and Wellbeing Co-ordinators) (Cox 2018)

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Necessity of the HEAL programme - low levels of awareness/knowledge about healthy lifestyle choices - When asked specifically about the young people's lifestyle habits prior to implementation of the HEAL programme, all carers commented that	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
the eating and physical activity habits of the young people could be improved. Carers frequently commented that young people generally lacked awareness, knowledge and understanding of the importance of leading a healthy lifestyle, especially eating well and being physically active.		and selection of participants.				
Necessity of the HEAL programme - Background of disadvantage – The carers emphasised the young people's vulnerable backgrounds and home environments prior to entering out of home care as a means of explaining their poor health literacy. Common explanations offered by carers included poor parental modelling, parental substance use, disruptive home environments and food being associated with the trauma of abuse and/or disturbed attachment. Additionally, coordinators noted that many young people enter OOHC with pre-existing, food-related issues, and these were often linked with their past experiences. Common examples included hoarding, bingeing, stealing or hiding food, and a tendency to overeat. It was also apparent that the majority of young people have a preference for 'junk' food, and this was often associated with lifetime exposure to an 'unhealthy' food environment.	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low
Necessity of the HEAL programme - Leading a Healthy Lifestyle is not a Priority – A number of carers suggested that, prior to the HEAL programme, establishing healthy lifestyle habits for the young people in out of home care residences was not always a priority. Carers described how managing everyday routines in out of home care residences was their highest priority, especially crisis management, and often	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
there was little time or energy left to encourage the young people to build and maintain healthy behaviours. Not surprisingly, the management of critical incidents also impacted implementation of HEAL. Coordinators talked about carers having to contend with aggression, substance abuse and criminal behaviour, and that a large percentage of their time is consumed managing these types of behaviours. HEAL activities, such as planning a healthy meal or going outside to be active, were sidelined when these crises occurred. One coordinator had concerns about carers in her units often using food to help manage difficult behaviours. For example, using junk food to diffuse a situation:						
Any Healthy Change is a Good Change – What Worked in Implementation – Residential carers and coordinators talked optimistically about the programme's impact, and unanimously agreed that any healthy shift in a young person's lifestyle habits, as a result of participating in the HEAL programme, was highly valued. While not all changes were maintained for the duration of the programme, both groups noticed a shift in previously ingrained behaviours (of both young people and carers). Five sub-themes also emerged.	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low
Any Healthy Change is a Good Change - Raising Awareness Carers frequently commented that even if behavioural changes were not achieved, implementation of the HEAL programme resulted in a general shift in awareness around the importance of leading a healthy lifestyle. This was viewed as a valuable, initial step along the change continuum. For coordinators, the most significant change reported was increased staff awareness, with carers becoming more conscious of the types of food/drinks that	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
they were providing to young people. Increased awareness led to changes in the OOHC environment including: provision of healthier food and/or beverages, an increase in the type and/or frequency of activities being offered to young people and improved role modelling by the residential carers.						
Any Healthy Change is a Good Change - Healthier Habits - Carers were asked to describe any changes that they had observed in the young people's eating habits since the beginning of the programme. Carers described both a reduction in 'unhealthy' habits, as well as an uptake of 'healthier' ones. The carers themselves mostly initiated and enacted these changes. For example, staff eliminated or reduced the availability of 'unhealthy' snacks (e.g. lollies, chocolates, chips), encouraged smaller serving sizes, restricted the availability of highly processed, convenience foods (e.g. frozen meals and snacks), offered less sugary drinks (e.g. soft drinks or juices) and used leaner cuts of meats in the main meals. A number of carers observed that these changes were not isolated to the young people; their units had also made changes regarding the types of foods that they and other staff would eat whilst on shift. Coordinators focused their discussion on improved physical activity, noting that many young people were eager to get involved in the activities that were presented to them through the HEAL programme. Novel activities and purchasing equipment for the unit(s) were used to increase physical activity levels, while simultaneously building rapport and engaging the young people in the programme content more broadly. Over the course of the programme, many units began to incorporate physical activity into their weekly routines, with a number of young people engaging in	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
regular exercise programmes. Coordinators also indicated that the programme contributed to the development of skills that are likely to support independent living post-care, as well as knowledge about leading a healthy lifestyle. For example, an increased number of young people demonstrated initiative by contributing to weekly menu plans and meal preparation.						
Any Healthy Change is a Good Change - Modelling is Key - Carers and coordinators talked about a positive flow-on effect from role modelling of physical activity, with the young people more inclined to engage in exercise when invited to join in with the carers or coordinators. Both groups highlighted the social benefits of co-participation, commenting that doing physical activity together provides an opportunity to spend quality time with the young people. A variety of physical activities that they and the young people had engaged in as a result of the HEAL programme were discussed, including: organised sports (i.e. football and rugby), attending the gym together, personal training, swimming, walking, bike riding, dodge ball and trampolining. Two carers felt that the HEAL programme gave them leverage to start a conversation with a young person about eating healthily or being more active,	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low
Any Healthy Change is a Good Change - Importance of Relationships – Another key theme that emerged was the importance of a strong relationship between carers and the young people, as a means to initiate and encourage change. In particular, carers discussed how a strong relationship helped them engage young people in conversations and/or activities, increased the likelihood that they would feel motivated to model staff behaviours and made it easier	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
to broach issues that the young person may be facing. One carer talked about young people in OOHC often being mistrustful of adults, and therefore building a strong relationship increases the likelihood that they will respond positively to suggestions around improving their health. Similarly, if the coordinator was able to establish good rapport with a young person, he/she were more likely to be receptive to the programme. Conversely, weaker relationships reduced the likelihood of the young person engaging. HEAL coordinators felt that when they did engage, the young people enjoyed the specialised attention, without record keeping:						
Any Healthy Change is a Good Change - Connection to Community – Carers and coordinators capitalised on opportunities presented by HEAL to connect the young people with the wider community. Each described how the programme helped the young people become more engaged in the community, either through activities run across different OOHC residences or by connecting them with external organisations/services – each young person participating in the programme was offered a free six-month Young Men's Christian Association (YMCA) gym membership. Building these connections facilitated positive social interaction and improved their confidence.	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low
Room for improvement - Challenges faced in implimentation - Building Key Players "Buy-in" – Carers highlighted the need for better programme ‘buy-in’ from key stakeholders both within their unit and the broader organisation. They generally felt that not all carers, team leaders and/or managers actively endorsed the programme. This was perceived as a barrier to successful uptake and maintenance of the programme.	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Carers also talked about difficulties implementing HEAL when there were no formal consequences for not participating or actively engaging in the programme. This often resulted in varied staff engagement within the unit, that is, some people were inconsistent in their reinforcement of programme objectives with the young people, and impacted others' ability to initiate and sustain changes. Carers also highlighted that young person 'buy-in' is important for longterm maintenance of the programme objectives. In particular, carers spoke about two main issues in relation to engaging the young people in the programme content: (1) although the HEAL programme is intended to be implemented using positive encouragement, incentives and reinforcement, not as a command and control approach with consequences for not complying, carers found it difficult because there were no repercussions for a young person not wanting to comply with their suggestions around changing their eating and/or physical activity habits; and (2) staff were discouraged from persisting with programme messages if it was perceived that doing so would be detrimental to their relationship with the young person. This is not dissimilar to coordinators who were unable to engage all young people in the programme content for a range of complex reasons, including social withdrawal (i.e. young person isolating him/herself from carers and other young people in the unit), frequent absconding, engaging in criminal behaviour, heavy substance use or a combination of each. The high turnover of young people (and carers) across different units also impacted the coordinators' ability to initiate and maintain relationships, and encourage programme participation: For young people, other programme implementation challenges noted by						

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
coordinators included: (1) a lack of practical skills to translate their intentions into action (e.g. young people in OOHC have often missed typical opportunities in childhood for skill development, e.g. learning to swim or ride a bike); (2) difficulties forming relevant/realistic goals and sticking to them over a period of time; and (3) in some cases difficulties accepting authority and following rules, with the programme being perceived as a means of 'rebelling' and resisting rules (a trait that is characteristic of the teenage years).						
Room for improvement - Carers are Role Models – Carers and coordinators observed differences among carers' ability to be role models for young people. Carers who had an interest in their own health and wellbeing embraced being a role model and tended to show more initiative in terms of engaging the young people. However, carers could also work against the aims of HEAL by modelling 'unhealthy' habits. This was mostly attributed to some carers having low levels of health literacy, failing to recognise why it is important to focus on improving the young people's health (in the face of other challenging behaviours), misperceptions about what would be considered 'healthy' (e.g. carers mistakenly believed that their unit was already healthy) and lacking the necessary skills to model a healthy lifestyle. Greater engagement was observed among carers who would actively seek out opportunities to get the young people exercising, and were constantly encouraging them to 'get moving'. Carers in these units were also more likely to access programme resources, to ask coordinators for advice and to work collaboratively to improve their unit's healthiness. Similarly, carers who provided consistent support to the young person to participate	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
in activities (i.e. ensuring transportation to the venue, staff availability and continually providing encouragement) had the most success. Conversely, if carers were not committed to the programme, were hesitant to participate or were inconsistent, this was also reflected in the young people's attitudes and behaviours towards the programme, and long-term change was not established.						
Building Organisational Capacity - Ensuring sustainability - Creating a Health Champion – Carers' opinions were sought on which was the best delivery model for HEAL: a dedicated or specialist HEAL role (external model) or a carer (internal model). All but two carers believed that having an external HEAL coordinator, who embodied and promoted key programme messages, and worked alongside unit staff to embed the HEAL programme into standard practice, would be the best way to achieve the programme objectives. Suggested reasons for this included: (1) an external person is more able to focus on changes that could be made in a particular unit (given that it was his/her primary role); (2) carers are already overextended and therefore have limited time to implement an additional programme, for example, carers are often occupied with the daily routines of the residential care units (i.e. transportation, maintaining the cleanliness and order of the unit, following up young people who have absconded); (3) high staff turnover impacts consistency; (4) carers often have more immediate priorities (i.e. managing crisis and keeping the young people safe); and (5) an external coordinator was viewed as having more 'authority' to implement changes. Despite most advocating for a dedicated HEAL role,	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
having a staff member within the unit take on the programme as an additional portfolio was still valued. Suggested benefits of this approach included having greater knowledge about the young people, the residential units and the organisation. Coordinators agreed that the programme had the greatest impact when they were able to identify a HEAL 'champion' in their unit(s). These carers were described as being passionate about the programme's objectives and proactive and they promoted the programme when the HEAL coordinator was away from the unit.						
Building Organisational Capacity - Making the HEAL Programme Sustainable – Although the carers were able to recognise a number of positive programme outcomes, there were mixed responses in regards to whether the changes were sustained throughout the duration of the programme or would be maintained post-intervention. Some carers were confident that any changes made were still in place. Others indicated that they were unable to achieve lasting changes. This was mostly explained by the young people's variable engagement (i.e. what is currently going on in their lives, and individual client complexities). It was clearly evident, however, that carers saw great value in the programme content. A number of carers made suggestions for improving the programme. These were mostly around tailoring the programme to fit the unique context of residential care. Specific examples provided by the carers included: fresh fruit/vegetable boxes, cookbooks, meal plans, vouchers for sporting organisations/activities and access to gyms. Other suggestions included having male and female HEAL coordinators, and increasing the number of people trained to deliver the	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
programme content (to facilitate increased one-on-one engagement with the young people and positive role modelling). For coordinators, they generally felt that for all carers to be able to deliver the programme effectively, they too needed training in the programme content. Although this varied across staff groups, there was a sense that carers' health literacy could be quite poor, and therefore carers would benefit from developing their understanding of why it is important to lead a healthy lifestyle, both for the young people and themselves. Coordinators stressed that education alone is not sufficient. Additional training needs to: (1) be interactive; (2) include strategies on how to engage the young people in health activities and empower them to make positive behaviour changes; (3) include strategies for broaching sensitive topics; and (4) focus on their power as a role model. Additional suggestions to help prioritise health outcomes included: (1) formalising the expectation that young people are regularly involved in activities that promote their health and/or wellbeing; (2) incorporating HEAL into each young person's care plan; and (3) building a 'healthy eating, active living' philosophy into carers' position descriptions.						

Experience of CAMHS clinicians in a Psychological Consultation for Social Workers programme

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Provide something valuable – All clinicians saw consultation as a useful provision for social workers. In particular, they highlighted how they aim to provide a protected space to think about complex cases and gain different perspectives. They also reflected on the containing nature of	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
consultation, how they hope to develop professionals' understanding of a child or young person's difficulties, manage risk and provide practical support with future planning, mirroring the most popular goals on the questionnaire data.						
Consultation process - the importance of explicitness – The importance of explicitness was discussed as a critical factor throughout all stages of the consultation, including having well-defined service responsibilities at the time of referral, clear roles and specific goals outlined early on and mutually agreed distinct actions at the end of sessions. Explicitness was also identified as a potential area for improvement. Most clinicians were surprised by the low percentage of respondents who wanted help with considering effective ways to parent and/or form a relationship with a child. One interpretation was that despite this being a common thread throughout consultation, it was not made sufficiently explicit to social workers.	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low
Being flexible and guided by the client – Being flexible and guided by the client was also identified as a sub-theme, particularly early on in the process. Moreover, this was suggested to influence the questionnaire data.	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low
Clinician-social worker relationship – Clinician-social worker relationships were something that clinicians recognised as influencing the consultation process but that was not addressed in the questionnaire and may have also affected the results.	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low
Impact of factors beyond the consultation room –	1	**Minor concerns**	**No concerns**	**Serious concerns**	**Moderate concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Wider systemic issues were directly referred to throughout the focus group. These were categorised into two sub-themes. Other agencies, such as independent reviewing officers, social work managers and the courts, were all recognised as influencing whether consultation makes a difference. Working effectively with staff/agencies and links with local services was also identified by both groups as a goal, social workers wanted help with but that the service could improve on. Social workers' motivation and expectations were also seen to influence what they would want from consultation and how satisfied they might be. In particular, one group speculated that the lower score on contact may be the result of social workers expecting court reports:		One study at moderate risk of bias: unclear recruitment strategy and selection of participants.		Only one study contributed to this theme	Australian study	
Challenges of evaluating social worker consultation – All clinicians acknowledged challenges with evaluating consultation. They were especially conscious of adding to social workers' already high workloads. One solution to this was administering the questionnaire early alongside other routine measures, but clinicians recognised that early evaluation was not ideal for capturing impact, which they perceived to occur over a longer period of time. There was some criticism of the items on the questionnaire itself, above all, on those asking about a difference. Clinicians spoke about gauging the value of the service using other methods such as informally receiving positive feedback, good attendance and continued referrals. It was also noted that consultees are often given other feedback forms issued by the local health trust, subsequently raising questions about how to ensure quality of responses on questionnaires.	1	**Minor concerns** One study at moderate risk of bias: unclear recruitment strategy and selection of participants.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** Australian study	Very Low

Experience of carers undertaking Treatment Foster Care

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Parent vs. Treatment Provider Several experts commented on the challenges TFC parents face in balancing their role as a caregiver with the expectation to be a professional. In treatment foster care, the experts emphasized how the TFC parent is responsible for creating an environment that provides a therapeutic experience for youth. Although the TFC parent may not have a clinical education or license, several experts expressed that "TFC parents are the ones who create the change." Youth in a treatment foster care placement may also be receiving therapy outside the home, but "the foster family is the agent of treatment, not therapy from the outside." The home setting itself is intended to be transformative. Although many TFC parents have experience and competence with parenting, this is no guarantee that they will be effective as a TFC parent. This tension between being a caregiver and being a treatment provider is not just about different competencies but also about embracing this expanded role.	1	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**Minor concerns** Study was from the USA	Very Low
Teamwork - Parent Expertise vs Worker Expertise As TFC parents are empowered to have larger roles as experts of the youth in their home, they may struggle to collaborate effectively with their TFC social worker. One of the workforce dynamics commonly found in TFC agencies is that TFC parents may have more life and parenting experience while TFC social workers may have more formal training and education in treatment approaches.	2	**No concerns** One study was low risk of bias, another was moderate risk of bias.	**No concerns**	**Moderate concerns** Only 2 studies contributed to this theme.	**Minor concerns** Studies were from the USA	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
The different types of expertise is not just a problem for the TFC parents. For TFC social workers, playing a supervisory or coaching role with experienced TFC parents can be intimidating. This tension may inhibit the social worker from providing validation to the TFC parent's role as a treatment provider. To manage this tension, the experts offered several ideas. Operating from the perspective of a strengths-based partnership was one suggestion. Recognizing that each type of expertise can have value and contribute towards the family's success is key. TFC foster parents across groups repeatedly emphasized the importance of developing strong care teams founded on relationships built of mutual respect and characterized by consistent, clear communication. Participants who expressed satisfaction with their care team were positive about their roles. They felt included in decision-making around their child and were routinely kept abreast of important information. The importance of respect, engagement, and clear communication was also evident in TFC foster parents' relationships with clinicians, and their belief in the efficacy in mental health treatment overall.						
Treatment foster carers need to know how to: • Be advocates – including in education, medical, and behavioral health services. Bringing their unique perspectives. • Have systems knowledge – of both the child wefare system and behavioural health system so as to know how to navigate this care. • Managing challenging behaviours Parenting youth with emotional and behavioural issues requires	2	**No concerns** One study was low risk of bias, another was moderate risk of bias.	**No concerns**	**Moderate concerns** Only 2 studies contributed to this theme.	**Minor concerns** Studies were from the USA	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
specialized skills. The experts noted that TFC parents should have the capacity to identify when a youth may require clinical care						
Preferences for training for TFC Experiential Training - Universally, the experts encouraged hands-on learning opportunities during training for TFC parents. One TFC expert recommended to “do a lot of experiential pieces in the training: practicing and role play. Keep it very behavioural.” Another expert suggested, “giving them a skill, having them practice in class, and then work with the kids at home.” As summarized by one expert: “the more interactive, the better.” The experts seemed to agree that a single training event without follow-up would have little impact. This ongoing skill building could be in the form of a coach that could provide follow-up consultation and refining of skill development.	2	**No concerns** One study was low risk of bias, another was moderate risk of bias.	**No concerns**	**Moderate concerns** Only 2 studies contributed to this theme.	**Minor concerns** Studies were from the USA	Very Low
Peer Support The experts emphasized the value of engaging other TFC parents in training and supporting TFC parents who are newer to the role or struggling. Learning from other parents was viewed as both credible and encouraging for TFC parents. The benefits were attributed to not just the recipient, but also for the experienced TFC parent who is able to exercise this leadership and service.	2	**No concerns** One study was low risk of bias, another was moderate risk of bias.	**No concerns**	**Moderate concerns** Only 2 studies contributed to this theme.	**Minor concerns** Studies were from the USA	Very Low
Destabilising staff turnover Consistent across all groups were reports of frequent and, sometimes, destabilizing transitions in the form of staff turnover or staff changing positions within their agency. As a result, participants widely agreed that strategies for managing transitions should be included as part of staff and foster parent training, and that additional resources—	1	**Minor concerns** Theme was derived from a study at moderate risk of bias	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**Minor concerns** Study was from the USA	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
both for children and for treatment foster carers —were needed during periods of change. Concerns about staff transitions focused primarily on the impact of transitions on the mental health of children; “every time you turn around they are changing caseworkers on them … and then they feel like they just tired of them.” Participants emphasized the toll repeated transitions could take their children, but most said agencies did not prepare them adequately for changes. More than one participant reported addressing transitions by telling their child to focus more on the stability of their (parent-child) relationship than the one with his/her caseworker. Participants agreed that more structured, consistent communication and support was needed around caseworker transitions—for everyone involved. At the very least, participants wanted to be informed in advance of impending departures, and, if possible, given the opportunity to meet with both workers, to facilitate transitions						
Need for emotional support in times of conflict In most of the groups, TFC foster parents described situations in which they felt staff members did not support them when there was conflict with a child in their care; at times staff were described as siding with the child during such conflicts, and at other times they were described as being absent and unsupportive. TFC foster parents who felt supported by their agency during periods of conflict described the things their agency did to make it easier for them to maintain difficult placements. One TFC foster parent said her agency did “everything” from setting up needed appointments with therapists “right away for the child” to picking up things at school. She reflected: “I feel	1	**Minor concerns** Theme was derived from a study at moderate risk of bias	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**Minor concerns** Study was from the USA	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
like they are there for me … it's really important because sometimes you feel overwhelming … some kids, you feel like, 'what am I going to do?' – but you have phone numbers for everything."						
Trial period, importance of suitability of placements: Getting acquainted - visits to ensure suitability - Opportunities to become acquainted and begin building a relationship were often valued by TFC parents. The visits were helpful not just to assess the match between the youth and foster parents, but also to observe other family dynamics the youth would be joining. Some TFC parents had to consider how a new foster youth would adjust with other youth in the home. Incorporating the foster youth into the family was mentioned by various TFC parents as being an important consideration when deciding whether to accept a youth into their care.	2	**No concerns**	**No concerns**	**Moderate concerns** Only two studies contributed to this theme	**Minor concerns** Studies took place in the USA	Very Low
Feeling rushed to make a decision, the transition process into the home - Timing. Some TFC parents expressed feeling rushed by the transition process of a youth being placed in their home. There seemed to be a push/pull between child welfare policies that emphasize youth living in family settings and the desire for TFC parents to feel adequately informed and prepared to receive the child. TFC parents recognize the pressures within the system even when there is some lead time for placements. Indeed, there was not a clear relationship between the amount of time involved in the transition and the experience of feeling rushed. Some TFC parents who received youth within hours of first being notified about the youth did not express any concerns about the timing, while other TFC parents who had a week or more to weigh the decision mentioned that the process seemed	1	**No concerns**	**Minor concerns** There was not a clear relationship between the amount of time on the run up to the placement and how "rushed" the foster parent felt. Therefore, it was unclear what exactly leads to this feeling of being rushed.	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Study took place in the USA	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
"real quick." This finding suggests that TFC parents differ on the amount of time they feel is needed to prepare for the transition.						
The need for information prior to placement. information gathering – feeling that information may be withheld. TFC parents used a variety of methods to gather information for making a decision about whether or not to accept a youth into their home. Some TFC parents reported asking the caseworker many questions about the youth or reading the youth's records, in addition to meeting and visiting. Other respondents seemed to require little information to make the decision to accept a youth. TFC parents also recognized the pitfalls of over-reliance on a youth's records or previous history. When TFC parents were asked what types of information they wanted about a youth they were considering accepting into their home, they mentioned characteristics related to the youth's behaviours, their background, and family experiences. Certain problem behaviours were frequently mentioned as important factors in assessing their willingness to foster a youth. Several TFC parents specifically mentioned they wanted to know whether the child had been a "firesetter," was "violent," and if they acted out sexually. Other less commonly reported issues that were mentioned as important to consider included being pregnant, lying, stealing, running away, and anger management issues. At times, TFC parents reported not receiving information they wanted about the youth. For example, 1 TFC parent reported learning that a child had a bedwetting problem that was not disclosed prior to placement. Another TFC parent said of a youth with	3	**No concerns** Two studies were low risk of bias and one moderate risk of bias	**Minor concerns** There was a distinction between the idea that foster carers would have preferred more information and the suspicion that information was deliberately being withheld.	**Minor concerns** Only three studies contributed to this theme	**Minor concerns** Study took place in the USA	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
attention deficit issues: "I didn't know that he had it or anything about it." Other types of information not received were explanations of why previous placements had disrupted or a youth's involvement in sexual activities. TFC parents had different explanations for why information they wanted was not received. In some situations, the information may not have been available in a youth's record or may not have ever been reported previously. Other TFC parents suspected that the placement social worker purposely withheld information from them because they wanted the child placed.						
Resource needs of youngsters arriving for TFC. clothing and personal items - TFC parents seemed prepared to provide personal care items for youth as needed, but often found that youth also needed new clothes. Suggestions for improving the adequacy of clothing included receiving a clothing grant when a child is placed (N = 5). Several TFC parents commented on how they took ownership of their youth's appearance. Providing for the youth's clothing needs seemed to make a positive impression on the youth. However, TFC parents were sometimes reluctant to invest so substantially in a youth newly-placed in their home.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Study took place in the USA	Very Low
Issues transitioning youth to school - Some TFC parents reported issues transitioning youth from their previous school to their new school e.g. difficulties getting registered. Others reported no problems in that transition.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Study took place in the USA	Very Low
Straightforward transition to new mental health, dental, and medical providers - mental health services	2	**No concerns**	**No concerns**	**Moderate concerns**	**Minor concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
transitions - In this TFC program, all youth were expected to receive weekly outpatient therapy. Transitioning youth to new mental health providers was made easier for most TFC parents because this agency's workers provide referrals to providers near the TFC home. The TFC parents also appreciated being able to choose the therapist they wanted to work with. Medical and dental services seemed equally straightforward. A TFC parent could have their caseworker transfer a youth's files to a provider of the parent's choice or the caseworker would help identify possible local providers. TFC parents reported few difficulties in logistics regarding securing services for youth in their home. TFC parents who were less experienced reported greater reliance on their caseworkers for help in navigating the process of getting settled, whereas more senior TFC parents knew the ropes well. Overall, TFC parents seemed satisfied with the quality of auxiliary services their youth received.		One study was low risk of bias, one was moderate risk of bias.		Only two studies contributed to this theme	Study took place in the USA	
Agency support in getting settled – good supportive relationships, training, respite, and referrals. The strengths of the program identified by TFC parents may have facilitated the getting acquainted stage of the transition process. These strengths highlighted various supports that were mentioned as being helpful to TFC parents. Eight TFC parents mentioned they had a good relationship with their TFC worker. Training was mentioned by 5 TFC parents as being a beneficial source of support. Respite was mentioned twice and referrals were mentioned by 1 TFC parent. Six mentioned the staff, counselors, or social workers at this agency were strengths.	2	**No concerns** One study was low risk of bias, one was moderate risk of bias.	**Minor concerns** Several distinct aspects of the support that foster carers found to be helpful was outlined here.	**Moderate concerns** Only two studies contributed to this theme	**Minor concerns** Study took place in the USA	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Adjustment to the idea of family life. Youth transitioning from group care settings are adjusting not only to their foster family, but also sometimes to family life in general. Some youth seemed to lack experiences that are common in most families. For example, 1 TFC parent recalled having a youth in her home who admitted never before having a set bedtime. Another TFC parent was surprised by a youth's dietary habits. A TFC mother described her efforts to treat her foster youth similarly to how she treated her biological children as a "mainstreaming" process.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Study took place in the USA	Very Low
Reasons for breakdown. When youth coming from group care or other settings transition to TFC, struggles in the transition can lead to placement disruptions. More than half of the respondents had experienced at least one disruption of a child leaving their home. Reasons cited for disruptions included lying, running away, skipping school, stealing, and sexual behaviors. From the descriptions provided by TFC parents, disruptions often occurred after an increasing build-up of problems over time. For example, being thrown out of school, or stealing. As youth problems escalated or maintained at high levels of intensity, TFC parents seemed to reach a breaking point.	1	**No concerns**	**Minor concerns** Several aspects that could lead to placement breakdown were described here. Some of which may require very different responses.	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Study took place in the USA	Very Low
Evidence of positive transition. Although not specifically asked about, many TFC parents shared evidence of a positive transition for youth they fostered, and they were proud and happy to share their success stories. E.g. success at school. Stakeholders perceived qualified clinical successes. One example is from a caseworker who thought that the youth's participation was beneficial even though her stay in an initial foster home placement lasted only a few months. Another qualified success was	2	**Minor concerns** One study had low risk of bias. One study did not make its methods of coding and thematic analysis explicit.	**Minor concerns** Specific aspects of a positive transition were described here. For example, clinical improvement vs success at school.	**Serious concerns** Only two studies contributed to this theme.	**Minor concerns** Studies took place in the USA	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
described by this foster parent, who saw substantial improvements in functioning in a youth she served.						
Creating relationships with birth families. The Circle Program was felt to be more likely to promote reunification with family or enter kinship care than among children in a generalist foster care placement. Factors contributing to the child's relationship with their family of origin included: valuing the unique knowledge brought by the parents, encouraging the attendance of family, and the usefulness of care team meetings.	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*	**No concerns** However, participation of birth families could be encouraged in one of several ways.	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low
Support that was helpful for retaining foster carers - Focus group data highlighted factors deemed to be influential to carer retention such as support, training, ongoing education and access to flexible funds to obtain services. Comments highlighted the value of participation in regular care team meetings. Carers spoke of their commitment to their role as a Circle carer, highlighting the experience of support, training, and ongoing education.	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some	**Minor concerns** Theme covered several distinct aspects of support that could help to retain foster carers.	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
		chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*				
Access to flexible brokerage funds - These funds were described by carers as supporting children to participate in normative community activities, for example a dance class or organized sport. Where a child required a specialist assessment (e.g. speech therapy) that was not available through public funding within a reasonable time frame, brokerage funding could be used. A key message from carers was the importance of accessing such discretionary funds to meet a child's needs in a timely way.	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low
Carers valued and treated as professional equals. The Circle Program was described by some carers as elevating the role of the foster carer to one that is 'equal' to the other professionals on the care team. This, combined with the Circle Program training, professionalized the role of the foster carer, and some carers reported increased levels of confidence in their competence. Carers also commented that the success of	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
the Circle Program was linked to the professional support provided: feeling 'listened to', having their opinions 'valued' and being 'supported' in their role as foster carer. In the focus groups, carers discussed their role and participation in the Circle Program with passion and enthusiasm. The wellbeing of the carer was also a focus of care team meetings with one carer commenting that someone always asked her how she was at care meetings and 'They really want to know how I am'!		participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*				
The common purpose of the care team with an equal system of carers - The egalitarian nature and common purpose of the care team were features mentioned by a number of focus group participants as having significance in their experience of TFC.	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low
Training essential particularly in trauma theory, attachment and self-knowledge. Contents of training - Training in trauma theory, attachment and selfknowledge	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of	**No concerns**	**Serious concerns** Only one study	**Minor concerns** Study took place in Australia	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
were also identified as essential components by foster carers and foster care workers alike.		the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*		contributed to this theme.		
Key role of the therapeutic specialist (Circle programme). The key role of the therapeutic specialist - Therapeutic specialists were identified by all stakeholders as core to the Circle Program's success. Circle carers and foster care workers highlighted the value of this role in guiding assessment and the care of the child. The availability of the therapeutic specialist was considered a particular strength given their knowledge; and ability to assist carers in understanding the child and their needs. Their role was active in guiding the foster carer in their day to day response to the child and this was experienced as very supportive and was seen to facilitate a more immediate and appropriate response in meeting the child's needs. The therapeutic specialist could also extend their focus to include the child's family of origin as from the commencement of placement the aim is for the child to reunify with their family if the family can meet their needs. As many of the families of origin had themselves	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
experienced trauma, it is important that they be assisted to heal and change to be available for the care of their child/young person.						
Building a support network for the child. Feedback from focus groups and the survey highlighted the importance of building a support network for the child/young person. This network included teachers, extended family and others in addition to members of the care team.	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low
The hard and stressful work of fostering. How would foster parents and staff tolerate the intervention? - a feasibility worry was that the TFC-OY intervention would be difficult for foster parents to tolerate. This was confirmed. In addition, some staff found the work stressful. In weekly meetings and in the qualitative research interviews, foster parents reported that the youth were extremely difficult to parent. Despite training that focused on the needs of youth with psychiatric problems, the foster parents reported being surprised by the amount of emotional volatility in the young people they served, the	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
low levels of what they perceived as emotional maturity, and high needs for monitoring and supervision. No parent or youth described an extended period of time when life settled into a comfortable routine. It always felt like stressful work to the foster parents. The experience was not easy for the TFC-OY staff either. One Life Coach was surprised by the low level of emotional functioning of youth in an office setting.		appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*				
Key role of the skills coach (Circle programme). The skills coach component was uniformly appreciated by foster parents, the program supervisor and the youth. When asked about the skills coach component, the youth tended to report things the coach had done for and with them that were related to positive youth development. E.g. helping to find a job, getting a drivers liscence, going to find a place to eat. Multiple stakeholders commented on the positive relationships that youth developed with their skills coaches.	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low
Key role of the psychiatric nurse (Circle programme). A second component that drew positive comments from stakeholders was that of the psychiatric nurse. Care managers appreciated the medication and diagnostic review provided by the nurse. They provided numerous examples of how they used this review and knowledge in	1	**Minor concerns** This study did not make its methods regarding coding and thematic analysis explicit.	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in USA	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
their interactions with mental health providers. While some youth did not understand why they were receiving psychoeducation about their mental health problems from a nurse, others greatly appreciated it, explaining that it changed how they monitored their symptoms and how they approached their psychiatric providers.						
Role of the life coach (Circle programme). The role of the life coach was a difficult one to execute. Initially, the role was focused on interpersonal skills the youth needed to succeed in the foster home, but was later supposed to involve life planning and psychoeducation. Two life coaches worked in the program and both found their role frustrating in terms of completing what they felt they were being asked to do.	1	**Minor concerns** This study did not make its methods regarding coding and thematic analysis explicit.	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in USA	Very Low
The family consultant role (Circle programme). The family consultant role was less well received. The family consultant made many unsuccessful efforts to re-engage biological relatives and other nominated individuals into the lives of youth in TFC-OY and executed one successful effort, involving an older sibling. The role was also expensive (using a master's level mental health professional). In the end, the principal investigator concluded that the family consultant role would be eliminated going forward and that needed family work would be conducted by the program supervisor.	1	**Minor concerns** This study did not make its methods regarding coding and thematic analysis explicit.	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in USA	Very Low
Changes suggested for the circle programme. Program changes needed? - Since it was decided that it was permissible to alter the intervention mid-pilot in order to have an intervention worthy of testing at the end of pilot period, two modifications to the protocols were made several months into the intervention: 1) redefined roles for team members; and 2) efforts to address emotional	1	**Minor concerns** This study did not make its methods regarding coding and thematic analysis explicit.	**Moderate concerns** Several changes to the intervention were described however it was unclear where qualitative data were coming from for	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in USA	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
dysregulation. Some of the life coach's responsibilities were offloaded to other team members. The skills coaches became responsible for helping youth plan for more independent living and the psychiatric nurse became responsible for providing psychoeducation about mental health problems. These modifications were considered successful, as viewed by stakeholders in qualitative interviews at the end of the project. Most glaring was the need to develop intervention components to address youth emotion regulation problems. Six of the foster parents interviewed qualitatively reported that the young people served in their homes experienced severe emotional outbursts; typically youth were seen as quick to become emotional and remaining emotionally volatile for substantial periods of time. During the last six months of the pilot, TFC-OY staff explored the potential of using processes and materials from Dialectical Behaviour Therapy in TFC-OY to address youth emotion regulation problems. Staff received initial DBT training from a certified trainer and a DBT skills group was mounted with the foster youth to teach interpersonal effectiveness and mindfulness skills. The groups were well received by youth who attended them, but attendance was a problem, mostly due to logistics, such as distance from youth placements to the group site, work schedules, and transportation issues. By the end of the pilot, the intervention team concluded that any future trials or implementation of TFC-OY should be delayed until new intervention components were developed to address emotion regulation problems.			these changes and if themes were all in agreement.			

Experience of carers, youth, and practitioners undertaking Multidimensional Treatment Foster Care

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
A common language and focus and the multidimentional treatment foster care team: One of the main strengths offered by the OSLC model was a degree of focus or 'common language' (seen as crucial in a multi-disciplinary team) and clarity of expectations for young people: "We're all very clear about what we're working towards and it helps in not splitting that group around the child. (Team member)"	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low
Crucial emphasis on rewards and punishments: The emphasis on rewards and punishments was generally regarded as crucial, both for its transparency and potential for setting and maintaining boundaries: "If they don't earn it, they can see it, there's something there that they can see, you can hold up in front of them and show them. (Foster carer)"	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low
The model takes the emotion out of the situation: Another strength was the perceived capacity for the model, with its relatively neutral and technical language, to 'take the emotion out of the situation' and to avoid escalation in the face of anger and outbursts: "In a way it stops people really feeling too criticised because it's like ... if someone says to you 'off model'that's like, 'Oh well, I	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
can get back on the model.' (Team member)" "You need to be quite calm and not easily fired up, to be able to just walk away when they're ranting and raving and they're in your face and they're shouting at you, and just walk away and let them calm down. (Foster carer)"		to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.				
Limitations of the MTFC model: Limitation 1) certain aspects of it needed to be 'Anglicised': Where they occurred, flexibilities tended to reflect either cultural differences or acquired practice wisdom. Within its UK context, some team members saw the programme being more holistic and less focused on 'breaking the cycle of offending', an emphasis sometimes couched in the language of 'leniency': "Helping that child develop ... in whatever way they need and meeting their needs to enable them to move to independence or whatever goes next to it. (Team member)". Limitation 2) it would work for some young people but not others; Limitation 3) the longer-term benefits of the programme were uncertain.	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** The limitations covered three distinct areas, but there was no contradiction in themes.	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low
Sticking to the model as a team – adaptions of MDTFC's logic and philosophy. Following the spirit rather than to the letter: A clear majority of interviewees saw themselves and the programme sticking closely to what they understood as 'the model', while often disclaiming any detailed knowledge of it. This partly reflected the routinisation of practice and perhaps the strength of team ethos: I know ... as a team we work towards the model and it's the Oregon model that we follow but it feels much more like we're working to our team model. (Team member) Broad adherence reflected a number of factors. First, the model appeared to 'make sense' to most of those involved, with	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** Variability in how the model was applied could lead to inconsistent application and standards. However, there was the idea of the model as a philosophy rather than a detailed set of statutes, which could aid adaptability.	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
several foster carers claiming (though with perhaps some oversimplification) that this had been the basis of their own childrearing: It's basically the way I brought my own children up, which is good children get lots of nice things and naughty children get nothing, but I do it with points. Second, the consensus was that, albeit with some flexibility (see below), the model 'worked' but that this required fairly strict adherence: We're very close to the model on most things and whenever we stray I have to say that it kicks us in the teeth. (Team member) A third factor was that of external monitoring and reporting mechanisms, whether from the NIT or OSLC itself. While this sometimes involved elements of 'presentation' to outside audiences that differed from day-to-day realities, it also served to reinforce the programme's logic and philosophy. Much of course, depended on how far the model and its weighty manuals were to be followed 'in spirit' or 'to the letter'. For example, one team member argued that expectations of young people in terms of healthy eating and eschewing of hip hop or rap music were unnecessarily restrictive and perhaps 'unrealistic'. While most foster carers came to find the award and deduction of points reasonably straightforward, the challenges, such as balancing consistency and individualisation and handling value judgements, should not be underestimated: "My lifestyle to somebody else's might be totally different and what I accept in my house is different to what somebody else accepts in theirs. (Foster carer)" Additional challenges included what constituted 'normal teenage behaviour' and how far the focus for change should rest with 'large' and 'small' behavioural problems respectively. These issues were, however,						

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
usually resolved fairly easily, with foster carers happy with their degree of discretion.						
Usefulness of the parental daily report: Parental Daily Reports were sometimes seen as 'a chore' (Westermark et al, 2007), but almost universally valued for their capacity to concentrate minds on behaviours, to ensure daily contact between foster carers and the programme and help 'nip problems in the bud'. "It makes me think about if things have happened, how I can do them better or how we can both do it better. So it's reflection for me. (Foster carer)" The data yielded were seen as useful for identifying trends and one-off or recurrent 'spikes' that might reveal behavioural triggers, such as contact visits or school events and as having a potential 'predictive' value for disruptions and optimal transition timing (Chamberlain et al, 2006). There were concerns that the prescribed list of behaviours was in places too 'Americanised' (eg 'mean talk') and that self-harm (not infrequent within the programme) was not listed separately but under destructiveness, requiring annotation to distinguish it from instances of 'kicking the door in'. Similarly, there was no reference to eating disorders other than 'skipping meals'. The question of whether behaviours were 'stressful' was clearly dependent to a degree on foster carers' tolerance and time of completion: "The next morning or the night time everything's died down and it probably isn't such a big deal ... [do] you give yourself that time just to calm down before you put it in the behaviour or should you do it when it happens? (Foster carer)" Concern was also expressed that the Parental Daily Report's focus on negative behaviours was not entirely congruent with the programme's aims of accentuating the	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** Theme covered several issues with the parental daily report including the burden on caregivers, the overly negative focus on behaviours, Americanisation of the language, and lack of distinction for medical or severe problems. However, spikes in behaviour could be tracked, which were helpful to identify triggers.	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
positives (see below), a situation that was seen as having a cultural dimension, with one team member commenting, albeit as a generalisation, on how US counterparts in MTFC tended to be 'more upbeat about things' and hence less likely to dwell on negative behaviours.						
Engagement was crucial to outcomes but highly variable and prone to change over time: "She couldn't give a monkey's. It didn't matter what I'd say she was not gonna . . . And she stayed with me for three months and then she decided she'd had enough and went. (Foster carer)" More generally, however, engagement levels were thought to be high, with some respondents indicating surprise at the apparent willingness to accept a restrictive regime with its initial 'boot camp' withdrawal of privileges: "I find it bizarre that they engage with it really quite well ... I kind of think if I was a 13-year-old lad ... would I really want to be negotiating buying my free time, my time out with points? But they do ... and they stick to it. (Team member)"	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low
Need for persistence and finding and tailoring the right rewards: Situations were described where young people would rail against restrictions and thwarted demands but ultimately comply. While the motivational value of an identifiable goal (such as return home) was recognised, sustaining interest day-to-day was equally important and required delicate judgements from foster carers as the following contrasting approaches indicate: "My young man likes to look at his points on a daily basis so we go through them with him and then we sit down and work out how he's gonna use his rewards and what he's aiming for next. I have to say that I don't sit down and discuss points with	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
[young person] every night because she will just rip it up and throw it at me and tell me what a load of bollocks it is" Equally important, however, was finding the right rewards and appropriate means of earning them (although one young person was said to 'just like getting points'), something that might entail individual tailoring: "She needs to score points really, really highly, so whereas one foster carer might give one of the lads ten points for doing what she did, she may need to earn 50 for it to mean something. (Team member)" If this raises questions of 'inconsistency', it was justified in terms of motivation, individual pathways and progression through the programme (Dore and Mullin, 2006). Similar logic had meant 'massaging' points to prevent a drop in levels, where this might provoke running away or placement breakdown: "I think with some young people they ... just wouldn't manage being on level one and therefore it is slightly adapted to sort of manage that. (Team member)"						
Are normal activities privileges? Transfer of placements into the programme also raised questions of how far previously 'normal' activities could be recast as privileges to be earned. Over time, this had reportedly given rise to some variations or changes of practice, for example, on televisions in bedrooms or consumption of fizzy drinks.	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low
Need for redemption and engagement with point and level system:	1	**Serious concerns**	**No concerns**	**Serious concerns**	**Minor concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
A key element of the OSLC philosophy is 'turning it around', allowing loss of points to be redeemed by subsequent good behaviour or positive reaction to the deduction. Although (some) foster carers felt this approach potentially made light of misdemeanours, the overall working of the programme was supportive of it: "Instead of giving her five points that she'd normally have I'll say, 'Well, you did that really well. I'll give you 15 for that today.' (Foster carer) You hear them talking about 'I really turned it around today' ... [or]'I'm working towards my points.' You actually hear the children saying, 'I know I need to be on this programme'. . . they ... have that insight. (Team member)" One young person had reportedly asked his foster carer not to let him out in case he got into trouble and forfeited a much desired holiday, something that was seen as a significant shift in thinking and timescales.		Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.		Only one study contributed to this theme	Data was likely collected prior to 2010	
A behavioural model or an attachment model? Behavioural programmes are sometimes criticised for lacking depth or concentrating on 'symptoms rather than causes', a debate we explored in interviews. Foster carers tended to focus on their own specific role in dealing with behaviours and saw the addressing of any 'underlying' problems as being the responsibility of others, especially the individual therapist, as in 'I'm just trying to break a pattern but it's not actually solving why they do it.' Also emphasised strongly was the temporal focus on present and future, by comparison with attachment models 'looking backwards'. If in some senses, practice remained firmly within a behavioural framework, this was not seen as precluding consideration of attachment issues, whether at the level of understanding – 'I find it quite hard not to	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**No concerns** This theme covers the reconciliation of the behavioural and attachment models in MDTFC	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
think about things in terms of attachment' – or in outcomes: "I think what's been helpful is people have sort of said, 'Oh, it's not an attachment model' and I just have been able to say to them, 'What do you think actually putting a containing and caring environment around a child does?' ... It's not the kind of ... Pavlov's dogs type thing that everyone thinks about when they think about behavioural models. (Team member)"						
Importance of appropriate matching: While in principle, behavioural approaches tend to de-emphasise the importance of relationship, the crucial importance of matching (which tended to involve consideration of several young people for one (or two) foster carer vacancies) was widely recognised and seen as a key area of learning within the programme: "I think we're getting it right more often than not and I think that's reflected in the ... reduction of disruptions. When we do get it wrong we get it wrong very spectacularly! (Team member)"	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**No concerns** However, this theme offered no suggestions as to how matching could be improved	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low
Move on placements and step-down placements: Marrying MTFC's twin aims of providing time-limited 'move on' placements while effecting sustainable behavioural change required complex judgements as to the optimal timing of transitions. Opinion was divided on this (national guidance had suggested a shortening of placements from around 18 to nine months) between those emphasising the time needed to deal with 'long-term damage' or the dangers of 'relapse' and those worried about stagnation, disengagement or young people 'outgrowing the programme'. While practice wisdom and programme data were seen as aiding decision-making,	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** There was a lack of clarity regarding which approach had been most successful for move on or step-down placements.	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
follow-on placements remained a significant problem. In some instances, this had been resolved by the young person remaining with their MTFC (respite) carers, although this usually entailed the latter's loss to the programme. Consideration had also been given to the establishment of 'step-down' placements to provide a more gradual reduction in structure and support (NIT, 2008). However, such provision is challenging in terms of recruitment. Several young people who had left MTFC had subsequently kept in contact, and interestingly this included some early and late leavers as well as graduates.						
Foster carers satisfaction with the level of support and out of hours service: Foster carers were extremely positive about levels of support in MTFC – 'Just absolutely amazing', 'I have to say brilliant. 100 per cent brilliant' – and some commented on how this had prevented disruptions that might otherwise have occurred. 'Enhanced' (relative to 'mainstream' fostering) features included higher levels of contact with supervising (and assistant) social workers and a structured pattern of short breaks or 'respite care'. In addition to their primary role of granting some relief from pressures, these arrangements sometimes evolved into follow-on placements after disruptions, helping to provide important elements of continuity. Another crucial 'enhanced' feature was a dedicated out-of-hours service staffed by members of the team, which, though used fairly modestly (typically one or two calls per day), was highly valued for its provision of a crucial safety net: "There's nothing more reassuring ... that you can ring someone up and actually hear that person on the end of the phone, it's	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** Enhanced support covered several aspects that foster carers found to be helpful, particularly in comparison to usual fostering.	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
not some call centre or someone you've never met before. (Foster carer)" Use of the out-of-hours service ranged from serious incidents involving offending, (alleged) sexual assaults, suicide concerns and violence or damage in the foster home, to reassurance on medical issues and dealing with difficult behaviours.						
Value of therapists and skills workers While the roles of therapists and skills workers sometimes raised issues of co-ordination with foster carers, their capacity to ease pressures at times of difficulty was valued by carers.	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** It is unclear what was meant by "issues of co-ordination"	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low
Usefulness of the foster carers' weekly meetings the foster carers' weekly meetings. These served both to ensure fairly prompt attention to issues, but also afforded the opportunity for mutual support and problem-solving	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	No concerns	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low
Success of co-ordinated working	1	**Serious concerns**	**Minor concerns**	**Serious concerns**	**Minor concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
There has been little research on the operation of teamwork within MTFC or its external relations. Despite significant staff turnover and some reworking of roles, the programme had also benefited from continuity in some key positions and a capacity to fill vacancies relatively quickly. From interviews and observation, internal roles appeared to be fairly clear and well co-ordinated, although the team's relatively small size had inevitably given rise on occasion to questions of flexibility, with tensions between willingness to help out and the maintenance of role boundaries (eg on provision of transport or supervision of contact): "On the whole, given that we have got a bunch of quite disparate professions ... we've got a conjoined CAMHS, education and social care team, there's a lot less conflict than I thought there might be. (Team member)" The workings of MTFC both facilitate and require high levels of communication, combining multifarious opportunities for contact with a need to pass on information regarding 'eventful' lives and high levels of activity on the programme. With occasional, and usually fairly specific exceptions, team members regarded communication as very effective, while foster carers were generally positive about their participation: 'They do value your input and they value your knowledge and your sort of past experience.'		Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	Some sense of difficulty co-ordinating the team and role boundaries despite the overall positive findings.	Only one study contributed to this theme	Data was likely collected prior to 2010	
Leadership of programme supervisors The role of Programme Supervisor (PS) as key decision-maker – variously referred to as 'Programme God' or 'the final word'– was crucial within the team. While some team members reported taking time to adapt to this, it was widely acknowledged that the PS and indeed 'the programme' could act as a lightning rod to defuse conflicts	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
involving young people and their foster carers: "Always it's'[PS], says' ... in answer, so my [young person] wishes that [PS] would drop dead at any moment. But that takes a huge amount off of me because it's not me who's saying it. That's absolutely been brilliant. (Foster carer)"		to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.				
Clash with the children's social worker Like any specialist programme, MTFC has faced challenges in its relationships with Children's Social Workers (often exacerbated by turnover among them) regarding the balance between a necessary transfer of responsibility on the part of Children's Social Workers while they continue to hold case accountability. Despite routinely sent information and discussions with the programme supervisors, almost all CSWs interviewed expressed some concerns, usually involving either not knowing of specific incidents (e.g. entry to hospital) or more ongoing matters, such as the content of counselling. For some, the concern was simply about being 'out of the loop', while for others it was the potential for exclusion from decision making and conflict with statutory duties: "It seemed to me that the treatment fostering team pretty much took on responsibility for the case, which is fine, but if anything goes wrong then don't make me accountable." From a programme perspective, there were occasional references to Childrens Social Workers who 'found it hard to let go', or whose misunderstanding caused confusion. As one foster carer put it, 'they start telling these kids all sorts of things and you're thinking "no actually, they can't"', although it should be noted that some Social Workers were viewed very positively. A more common concern, however, was that some Social workers 'opted out' once the young person entered MTFC, although this	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**Minor Concerns** Theme encompassed several aspects of difficulty in working with Children's Social Workers. Both in relinquishing control and stepping back too much.	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
was often acknowledged (on both sides) as understandable given the workload pressures facing children's social workers: "[. . .] was the sort of child I used to literally wake up worrying about and I don't now because somebody else is doing that worrying. (CSW)" Encouragingly, CSWs also referred to improving communication, with some plaudits for MTFC being approachable and responsive. The programme had attempted to improve liaison by visiting teams and by inviting children's social workers to attend meetings, although these offers had not been taken up, with CSWs reporting diary clashes and imprecise timings to discuss 'their' charges. It was also noted that the very specific workings and language of MTFC were not always well-integrated into Looked After Children (LAC) review processes.						
Social workers were positive about the programme even where placements broke down "He was a really, really difficult young man and they've really supported him and provided him with a stable home environment, really, really firm boundaries which he's really needed . . . I think the placement's been fantastic. She would have met the criteria [for secure accommodation] in terms of running off ... self-harming ... And now the self-harming is very ... very limited. It changed his life around to be perfectly honest. Yeah, I'd go that far." This is not, of course, to say that time in MTFC represents any form of panacea, but recognition of its impact in often difficult circumstances: "He's only absconded three times in six months or so and it's only ever been running off from school and he's back by nine o'clock ... whereas before he was missing for days on	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** Data was likely collected prior to 2010	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
end. (Team member) There are obviously still concerns about her emotional welfare and there will be, but she was a very, very damaged girl for lots and lots of reasons, but there was a time where I thought she just might ... not survive. (CSW)" The idea that even 'failed' placements might nonetheless carry some residual benefit for young people – particularly those in 'multiple disruption mode' was also expressed by some.						
Creating relationships with birth families. The Circle Program was felt to be more likely to promote reunification with family or enter kinship care than among children in a generalist foster care placement. Factors contributing to the child's relationship with their family of origin included: valuing the unique knowledge brought by the parents, encouraging the attendance of family, and the usefulness of care team meetings.	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*	**No concerns** However, participation of birth families could be encouraged in one of several ways.	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low
Support that was helpful for retaining foster carers - Focus group data highlighted factors deemed to be influential to carer retention such as support, training, ongoing education and access to flexible funds to obtain services. Comments highlighted the value of participation in regular care team meetings. Carers spoke of their	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of	**Minor concerns** Theme covered several distinct aspects of support that could help to retain foster carers.	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
commitment to their role as a Circle carer, highlighting the experience of support, training, and ongoing education.		reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*				
Access to flexible brokerage funds - These funds were described by carers as supporting children to participate in normative community activities, for example a dance class or organized sport. Where a child required a specialist assessment (e.g. speech therapy) that was not available through public funding within a reasonable time frame, brokerage funding could be used. A key message from carers was the importance of accessing such discretionary funds to meet a child's needs in a timely way.	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low
Carers valued and treated as professional equals. The Circle Program was described by some carers as	1	**Serious concerns**	**No concerns**	**Serious concerns**	**Minor concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
elevating the role of the foster carer to one that is 'equal' to the other professionals on the care team. This, combined with the Circle Program training, professionalized the role of the foster carer, and some carers reported increased levels of confidence in their competence. Carers also commented that the success of the Circle Program was linked to the professional support provided: feeling 'listened to', having their opinions 'valued' and being 'supported' in their role as foster carer. In the focus groups, carers discussed their role and participation in the Circle Program with passion and enthusiasm. The wellbeing of the carer was also a focus of care team meetings with one carer commenting that someone always asked her how she was at care meetings and 'They really want to know how I am'!		Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*		Only one study contributed to this theme.	Study took place in Australia	
The common purpose of the care team with an equal system of carers - The egalitarian nature and common purpose of the care team were features mentioned by a number of focus group participants as having significance in their experience of TFC.	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit.	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
		Thematic analysis process was not described explicitly.				
Training essential particularly in trauma theory, attachment and self-knowledge. Contents of training - Training in trauma theory, attachment and selfknowledge were also identified as essential components by foster carers and foster care workers alike.	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low
Key role of the therapeutic specialist (Circle programme). The key role of the therapeutic specialist - Therapeutic specialists were identified by all stakeholders as core to the Circle Program's success. Circle carers and foster care workers highlighted the value of this role in guiding assessment and the care of the child. The availability of the therapeutic specialist was considered a particular strength given their knowledge; and ability to assist carers in understanding the child and their needs. Their role was active in guiding the foster carer in their day to day response to the child and this was	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
experienced as very supportive and was seen to facilitate a more immediate and appropriate response in meeting the child's needs. The therapeutic specialist could also extend their focus to include the child's family of origin as from the commencement of placement the aim is for the child to reunify with their family if the family can meet their needs. As many of the families of origin had themselves experienced trauma, it is important that they be assisted to heal and change to be available for the care of their child/young person.		appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*				
Building a support network for the child. Feedback from focus groups and the survey highlighted the importance of building a support network for the child/young person. This network included teachers, extended family and others in addition to members of the care team.	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low
The hard and stressful work of fostering. How would foster parents and staff tolerate the intervention? - a feasibility worry was that the TFC-OY intervention would be difficult for foster parents to tolerate. This was	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of	**No concerns**	**Serious concerns** Only one study	**Minor concerns** Study took place in Australia	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
confirmed. In addition, some staff found the work stressful. In weekly meetings and in the qualitative research interviews, foster parents reported that the youth were extremely difficult to parent. Despite training that focused on the needs of youth with psychiatric problems, the foster parents reported being surprised by the amount of emotional volatility in the young people they served, the low levels of what they perceived as emotional maturity, and high needs for monitoring and supervision. No parent or youth described an extended period of time when life settled into a comfortable routine. It always felt like stressful work to the foster parents. The experience was not easy for the TFC-OY staff either. One Life Coach was surprised by the low level of emotional functioning of youth in an office setting.		the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*		contributed to this theme.		
Key role of the skills coach (Circle programme). The skills coach component was uniformly appreciated by foster parents, the program supervisor and the youth. When asked about the skills coach component, the youth tended to report things the coach had done for and with them that were related to positive youth development. E.g. helping to find a job, getting a drivers liscence, going to find a place to eat. Multiple stakeholders commented on the positive relationships that youth developed with their skills coaches.	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of reunification. Researchers do not discuss how participants were selected for the study, and why these were the most appropriate or why some chose not to take part. Focus group methods were not made explicit. *Thematic analysis*	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
		process was not described explicitly.				
Key role of the psychiatric nurse (Circle programme). A second component that drew positive comments from stakeholders was that of the psychiatric nurse. Care managers appreciated the medication and diagnostic review provided by the nurse. They provided numerous examples of how they used this review and knowledge in their interactions with mental health providers. While some youth did not understand why they were receiving psychoeducation about their mental health problems from a nurse, others greatly appreciated it, explaining that it changed how they monitored their symptoms and how they approached their psychiatric providers.	1	**Minor concerns** This study did not make its methods regarding coding and thematic analysis explicit.	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in USA	Very Low
Role of the life coach (Circle programme). The role of the life coach was a difficult one to execute. Initially, the role was focused on interpersonal skills the youth needed to succeed in the foster home, but was later supposed to involve life planning and psychoeducation. Two life coaches worked in the program and both found their role frustrating in terms of completing what they felt they were being asked to do.	1	**Minor concerns** This study did not make its methods regarding coding and thematic analysis explicit.	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in USA	Very Low
The family consultant role (Circle programme). The family consultant role was less well received. The family consultant made many unsuccessful efforts to re-engage biological relatives and other nominated individuals into the lives of youth in TFC-OY and executed one successful effort, involving an older sibling. The role was also expensive (using a master's level mental health professional). In the end, the principal investigator concluded that the family consultant role would be	1	**Minor concerns** This study did not make its methods regarding coding and thematic analysis explicit.	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in USA	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
eliminated going forward and that needed family work would be conducted by the program supervisor.						
Changes suggested for the circle programme. Program changes needed? - Since it was decided that it was permissible to alter the intervention mid-pilot in order to have an intervention worthy of testing at the end of pilot period, two modifications to the protocols were made several months into the intervention: 1) redefined roles for team members; and 2) efforts to address emotional dysregulation. Some of the life coach's responsibilities were offloaded to other team members. The skills coaches became responsible for helping youth plan for more independent living and the psychiatric nurse became responsible for providing psychoeducation about mental health problems. These modifications were considered successful, as viewed by stakeholders in qualitative interviews at the end of the project. Most glaring was the need to develop intervention components to address youth emotion regulation problems. Six of the foster parents interviewed qualitatively reported that the young people served in their homes experienced severe emotional outbursts; typically youth were seen as quick to become emotional and remaining emotionally volatile for substantial periods of time. During the last six months of the pilot, TFC-OY staff explored the potential of using processes and materials from Dialectical Behaviour Therapy in TFC-OY to address youth emotion regulation problems. Staff received initial DBT training from a certified trainer and a DBT skills group was mounted with the foster youth to teach interpersonal effectiveness and mindfulness skills. The groups were well received by youth who attended them, but attendance was a problem,	1	**Minor concerns** This study did not make its methods regarding coding and thematic analysis explicit.	**Moderate concerns** Several changes to the intervention were described however it was unclear where qualitative data were coming from for these changes and if themes were all in agreement.	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in USA	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
mostly due to logistics, such as distance from youth placements to the group site, work schedules, and transportation issues. By the end of the pilot, the intervention team concluded that any future trials or implementation of TFC-OY should be delayed until new intervention components were developed to address emotion regulation problems.						

Experience of looked after children in the Theraplay programme (Francis 2017)

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Context: Care setting – carers and school staff felt that the child's early life experiences and placement instabilities impacted on the child's learning.	1	**Moderate concerns** One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Context: School systems – staff felt the work was constrained by limited time for sessions, support for teachers and the intervention not being embedded in the school.	1	**Moderate concerns** One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Mechanisms of intervention: Relationship with significant adult – staff appreciated opportunities to build relationships with the	1	**Moderate concerns**	**No concerns**	**Serious concerns**	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
child/children		One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst.		Only one study contributed to this theme	UK-based study	
Mechanisms of intervention: Theraplay® activities – staff felt the individualised nature of Theraplay® activities matched the child/children's needs	1	**Moderate concerns** One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Mechanisms of intervention: Consultation with staff – staff valued the additional sessions and having protected time for their own well-being and learning.	1	**Moderate concerns** One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Outcomes: Increase in positive relationships with peers and key adults.	1	**Moderate concerns** One high risk of bias study. Unclear description of thematic	**Minor concerns** The themes were not fleshed	**Serious concerns**	**No concerns** UK-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
		analysis, No triangulation, respondent validation, or the use of more than one analyst.	out meaning a convincing theoretical explanation for the patterns found was not provided.	Only one study contributed to this theme		
Outcomes: Increase in engagement with education – school staff noticed improvements in attendance, the children following adults' requests, and their attention and concentration.	1	**Moderate concerns** One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Outcomes: Increase in confidence and self-esteem.	1	**Moderate concerns** One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst.	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Outcomes: Increase in positive behaviours.	1	**Moderate concerns** One high risk of bias study. Unclear	**Minor concerns**	**Serious concerns**	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
		description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst.	The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.	Only one study contributed to this theme	UK-based study	
Outcomes: Increase in enjoyment and engagement – children reported enjoying the group, making friends and feeling happy; some children shared the activities with their carers at home.	1	**Moderate concerns** One high risk of bias study. Unclear description of thematic analysis, No triangulation, respondent validation, or the use of more than one analyst.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low

Experience of looked after children and youth undertaking Life Story Intervention

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Intervention was enjoyable – When asked what the intervention was like for them, most children characterized the experience as enjoyable, especially their relationships with the community clinicians who were described using words like “cool,” “fun” and “great”. For 14-year-old Brad, it was important that Lynn was “a local person.”	1	**Minor concerns** One study of moderate risk of bias was included. This study was marked down for quality due to lack of clarity regarding	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** USA-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
		recruitment for interviews, or the method of thematic analysis.				
Someone to talk to – When asked how the intervention had been helpful, several children discussed the importance of having someone to talk to, especially about problems. Jason, aged 12, explained that it is hard for him to talk about his family, but that it felt good to share his memories with someone. Brad, whose foster mother maltreated him emphasized Lynn's role both in talking with him and in helping him resolve specific ongoing problems.	1	**Minor concerns** One study of moderate risk of bias was included. This study was marked down for quality due to lack of clarity regarding recruitment for interviews, or the method of thematic analysis.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** USA-based study	Very Low
Initial anxiety about talking about experiences - Children also discussed challenges and limitations of the intervention. A number of children described initial anxiety about talking about their experiences. Although his initial anxieties were resolved, Jason recommended that in the future we better prepare children for the experience of meeting and talking with an adult.	1	**Minor concerns** One study of moderate risk of bias was included. This study was marked down for quality due to lack of clarity regarding recruitment for interviews, or the method of thematic analysis.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** USA-based study	Very Low
Reluctance to revist the past when trying to start a new chapter – Mary, aged 10, however, remained ambivalent about talking about her experiences. Mary felt that she had only been helped “a little…because it's like, I'm tough. I don't like to listen to people. I'm hard headed.” She did, however, recommend the intervention to	1	**Minor concerns** One study of moderate risk of bias was included. This study was marked down for quality due to lack of	**No concerns**	**Serious concerns** Only one study	**Minor concerns** USA-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
other children because Gayle: "…can really help you get out your feelings… keep doing what you're doing and helping kids know that it's alright to express your feelings… as long as you get them out and don't get pulled back in them again…"		clarity regarding recruitment for interviews, or the method of thematic analysis.		contributed to this theme		
Continuity of care and sadness over the shortness of the intervention – A number of children also expressed how much they missed their community clinicians, and their sadness that the intervention was not longer.	1	**Minor concerns** One study of moderate risk of bias was included. This study was marked down for quality due to lack of clarity regarding recruitment for interviews, or the method of thematic analysis.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** USA-based study	Very Low
Bond and relationship – Caregivers' perspectives largely echoed those of the children. When asked about themost important part of the intervention,most described the time spent with the community clinician as enjoyable to the child. They valued the opportunity for the child to “bond” and to have “one-on-one timewith someone other than the family and foster family,” and to “trust someone other than Mom.” A number of caregivers developed supportive relationships with the community clinicians, which they found of emotional and practical help when dealing with children's difficult behaviors.	1	**Minor concerns** One study of moderate risk of bias was included. This study was marked down for quality due to lack of clarity regarding recruitment for interviews, or the method of thematic analysis.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** USA-based study	Very Low
Need for longer interventions – Their primary suggestion for improvement was to extend the time of the intervention beyond the seven months.	1	**Minor concerns** One study of moderate risk of bias was included. This study was marked down for	**No concerns**	**Serious concerns** Only one study	**Minor concerns** USA-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
		quality due to lack of clarity regarding recruitment for interviews, or the method of thematic analysis.		contributed to this theme		
Importance of setting – Michael's foster mother appreciated that his community clinician came to him at home,which was more comfortable to both her and Michael	1	**Minor concerns** One study of moderate risk of bias was included. This study was marked down for quality due to lack of clarity regarding recruitment for interviews, or the method of thematic analysis.	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Minor concerns** USA-based study	Very Low

Experience of looked after youth undertaking Mindfulness-based stress reduction (Jee 2014)

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Incentives are a motivating factor for youth to participate in the group	1	**Moderate concerns** One study of high risk of bias was included. This study was marked down for quality due to lack of clarity regarding interview methods, thematic	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** USA-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
		analysis, or validation of themes	the patterns found was not provided.			
Youth enjoyed being in a group with others were similar to themselves	1	**Moderate concerns** One study of high risk of bias was included. This study was marked down for quality due to lack of clarity regarding interview methods, thematic analysis, or validation of themes	**No concerns**	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** USA-based study	Very Low
Youth demonstrated gains in social skills, both short term and long term gains	1	**Moderate concerns** One study of high risk of bias was included. This study was marked down for quality due to lack of clarity regarding interview methods, thematic analysis, or validation of themes	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** USA-based study	Very Low
Youth showed changes in responses to stress, both positive and negative changes	1	**Moderate concerns** One study of high risk of bias was included. This study was marked down for quality due to lack of clarity regarding interview methods, thematic	**Minor concerns** The themes were not fleshed out meaning a convincing theoretical explanation for	**Serious concerns** Only one study contributed to this theme	**Moderate concerns** USA-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
		analysis, or validation of themes	the patterns found was not provided.			

Experience of project co-ordinators, senior managers and social workers, local authority staff and looked after children undertaking a peer mentoring intervention (Mezey 2015)

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Mentoring and increased mentee confidence - gaining a friend – Several of the mentees felt that having a mentor amounted to gaining a 'friend'. Pilot mentee 2. One mentee had entered the care system as an unaccompanied minor 6 months previously. She spoke very little English and she had been nervous about meeting her mentor because of this. However, she reported that her mentor had encouraged her and helped her to feel more confident about speaking. One mentee reported that she had felt confident about discussing her sexual orientation because of her mentor's empathic and non-judgemental approach when they had first started to discuss sex and relationships: Another mentee described feeling more confident about asserting herself appropriately with boys, rather than just becoming angry, as a result of her conversations with her mentor: Another mentee felt that spending time with her mentor had broadened her mind and encouraged her to be more open, which had reduced her stress levels. At follow-up she believed that she was less likely to get angry with people.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Mentoring and improved mentee decision making and social skills - Mentees reported benefits from being able to engage in positive leisure pursuits with their mentor, including being able to make more positive decisions and 'good choices'. For example, one mentee said that her mentor had helped her to realise that that she tended to be somewhat judgemental of other people, which had limited her social interactions and engagement. She had learnt that it was important 'not to judge a book by its cover' and to try to be a bit less judgemental, which had in turn begun to open up her social network. Another mentee reported that her mentor had helped her to realise that she needed to broaden her horizons, which had previously largely been focused on impressing the opposite sex. Mentees also reported feeling more confident in being able to make the right choices in other important areas, including education and family life.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Mentoring and increased mentor confidence The majority of mentors said that being a mentor had given them a sense of responsibility and had also helped them to feel more confident, in terms of their social interactions and when required to tackle new and unfamiliar situations. One mentor said that through having a mentee she came to realise that her anxiety in social situations 'just means this person is new to me' and was something that she could overcome. Another mentor said that she had applied that confidence to more practical challenges.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Mentoring and increased mentor self-efficacy A number of mentors talked about a sense of satisfaction in having been able to persevere with the mentoring in spite of things having been difficult. Pilot mentor 3 referred to how telephoning her mentee, organising meetings and encouraging her mentee to meet her had given her a new-found 'sense of responsibility'.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Mentoring and change in mentor attitudes Improved attitudes and interactions with others were frequently	1	**No concerns**	**No concerns**	**Serious concerns**	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
attributed to the experience of mentoring, including the development of patience, tolerance and understanding and open-mindedness in speaking to younger people. Mentors gained an understanding that people have different needs, work at their own pace and, with support, must make their own decisions. One mentor talked about how her experience had made her decide to seek further experience, carrying out advocacy work with young people.				Only one study contributed to this theme	UK-based study	
Factors affecting engagement - non-judgemental attitude – Because many of these young people were very used to being judged or criticised by others, the idea of having someone to talk to from outside their friendship or social network who would not judge them was very appealing. Mentee 1006 valued the fact that her mentor did not simply tell her off or panic after she disclosed that she might be pregnant, but offered her help and practical advice to deal with the situation.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Factors affecting engagement - active listening and advising – Mentees in the study said that they appreciated being able to 'offload' to a mentor and to feel that they were being listened to. They also appreciated that a mentor would only offer advice after listening to them and taking their views and concerns seriously. Mentees appeared to differentiate between talking to their mentor and talking to their friends or to an adult in a position of authority.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Factors affecting engagement - sharing personal experiences – During the training, mentors were encouraged to think about the aspects of themselves that they would like to keep private and those that they would be happy to discuss. Limited self-disclosure by mentors of personal information was often quite useful in facilitating difficult conversations.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Factors affecting engagement - Advocacy and signposting to support – An important part of the mentor role was the mentors using their	1	**No concerns**	**No concerns**	**Serious concerns**	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
knowledge and experience of the care system to support mentees with their issues in care.				Only one study contributed to this theme	UK-based study	
Factors affecting engagement - Maintaining confidentiality – Mentees appeared to appreciate the fact that whatever they told their mentor would be kept confidential, but they also understood the limits of that confidentiality. It was also important that the mentor was located outside their usual social network in terms of facilitating disclosure of sensitive information.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Factors affecting engagement - offering new opportunities – Some mentees felt that having a mentor had given them opportunities to do new and exciting things or to have new experiences.	1	**No concerns**	**Minor concerns** The theme was not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Factors affecting engagement - Persistence – It was difficult to assess why some mentor–mentee pairs were able to sustain a relationship over a period of time whereas others fell by the wayside at a relatively early stage. Some mentors withdrew from the intervention when faced with a difficult or reluctant mentee; however, others remained enthusiastic and adopted various strategies to engage their mentee and persevered with the relationship.	1	**No concerns**	**Minor concerns** The theme was not fleshed out meaning a convincing theoretical explanation for the patterns found was not provided.	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Shared experience of care The majority of mentees said that they would rather speak to a mentor than to their social worker about personal issues, as social workers were often too busy fulfilling statutory requirements to listen to them or to support them with emotional issues. At the end of the mentoring period, when the mentees were asked if there was any more support that they required. Social workers also felt that they would be less effective than peers at engaging the young people in conversations around intimate issues, both because of the age gap and because they tend to be viewed rather negatively and mistrusted by the young people they work with. The majority of those aged 14–18 years (seven of the 11 who spoke about it) considered that it was important that their mentor had some experience of care, as it made it easier to relate to them. One of the mentors also considered that her experience of care had helped her to empathise with and build up a relationship with her mentee. However, mentees also considered that it was important for their mentor to have a genuine interest in them and to support them, regardless of whether they had been through the care system themselves.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Matching – Mentors and mentees tended to value having some common background or interests. Three pairs with a shared Caribbean background and one pair from Central Africa commented about the importance of this. One of the mentors had attended the same college as her mentee, which they had been able to discuss. Another pair discovered a shared interest in fashion. Professionals also identified location as an important matching consideration, although one of the most successful relationships involved the mentor having to travel across London, from her university, to meet up with her mentee.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Information sharing – Overall, there was a consensus amongst professionals that mentors should be given any relevant information about a mentee that might impact on their ability to mentor that they should be alerted to issues that could potentially arise during mentoring. When this issue was discussed at a focus group, social workers were concerned about historical information about a mentee being disclosed, as the situation for the mentee may have changed. However, they also agreed that sometimes it would be in the best interests of the young person to share certain sensitive information with a mentor.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Preference for group mentoring as well as one-on-one mentoring – Mentors and mentees were asked for their views on the format of the mentoring sessions. Eight out of 12 mentors, as well as three mentees, expressed a preference for group mentoring in addition to one-to-one meetings. Mentors and mentees felt that group mentoring would accelerate the bonding process between pairs, encourage a more relaxed atmosphere and open dialogue, increase confidence, widen their social networks and encourage additional one-to-one meetings to take place. One of the mentors in LA2 recalled group meetings that she had participated in on the CiCC, which she felt would be a helpful model to adopt in the mentoring project. One of the mentors thought that a group setting would be useful for SRE and another felt that it would encourage mentees to engage with other LAC of a similar age, thereby increasing their social network.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Barriers to engagement - unreliability – Mentees would often agree to attend a meeting with their mentor but then would alter the time or place of the meeting, without notice, or simply fail to turn up. Reasons given for not turning up included too much school work, seeing friends and 'bad weather'. This led to some mentors themselves feeling let down and demoralised. One	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
mentor said that she ended up feeling 'like a teacher trying to find a, you know a primary school kid, chasing them around the playground' (pilot mentor 2). Even when mentees were not required to travel far to meet their mentor, they were often unmotivated to make the effort. To address the issues of non-attendance, mentors usually had to go to where their mentee was, rather than expect the mentee to come to them. As some young people said that they did not like having to engage with social workers, it is perhaps unsurprising that one of the barriers to engagement was the mistaken belief by mentees that the mentors were part of social services provision. It is perhaps not surprising that mentees find it difficult to build up trusting relationships and are likely to regard any new people introduced into their social orbit with a degree of suspicion, particularly if they themselves have not chosen them. Pilot mentee 3 started off from a position of mistrust and suspicion; however, her position later started to shift, particularly in response to her mentor disclosing information about herself. It may be that the mentees in those relationships that did not last long, or that were inconsistent, never got to the point of trusting their mentor enough to be able to talk about things that were important to them. Even when a mentee appeared to have engaged well with a mentor at one meeting, this did not mean that they would necessarily turn up for the next one, which often left the mentors questioning their judgement and whether they might have done or said something wrong. Overall, non-engagement of mentees appeared to reflect their ambivalence about the intervention. The researchers also encountered a lack of motivation and 'mixed messages' regarding engagement and often had to rearrange meetings with mentees after they failed to show up, without providing an explanation or an excuse. One PC expressed the view that LAC may find it hard to express their opinion about whether or not they want to participate, possibly because they feel so disempowered, and so they end up						

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
voting with their feet, by not turning up or not responding to phone calls. Some mentees may have found the mentoring encounters too anxiety provoking and therefore withdrew, or they may not have appreciated the importance of not letting other people down. Professionals also considered that these young people may experience difficulties in planning ahead and organising, or taking control over their lives, so that if something better comes along they will simply go with whatever seems easiest.						
Barriers - personal lives and mentor committments - Some mentors acknowledged that, despite their best intentions, personal and work-related issues impacted on their ability to fulfil commitments. Mentees reported that mentors did not always communicate with them when other commitments made it difficult for them to keep up with their mentoring role. One mentor failed to inform her mentee that she had a job interview and could no longer make the arranged meeting. This frustrated her mentee who, when asked for her views on what an ideal mentor should do, responded 'just turn up'. Many LA professionals expressed concerns about the vulnerability of the mentors and the extent to which they would be able to separate their own issues from the mentees' issues. Some of them also had to deal with family issues, domestic violence and/or mental health issues. Moreover, a number of the mentors were juggling other commitments during the mentoring period, including college, work and childcare responsibilities.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Problems - managing money and diary entry - Although there were several examples of mentors who fulfilled the responsibilities of the mentoring role, there were a greater number who, in some form, breached the terms in the mentor contract. Issues included not collecting receipts for money spent, running up large phone bills on calls not related to the project and keeping money for their own use: In one case a mentor confided in her mentee that she felt irritated that other mentors were spending money on themselves	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
and not spending it on the mentees. The mentee believed that this was 'out of order' but was also content in the knowledge that her mentor 'would never do that'. In relation to excessive phone usage, the PCs felt that it was difficult for them to challenge the mentors about what had occurred and, without proof of any wrongdoing, they were reluctant to take action. Anecdotal evidence suggested that one or two mentors were attending the support group meeting solely for the purpose of collecting vouchers as a reward for their role, even if they were no longer making attempts to meet regularly with their mentees. There was a clear indication from social work professionals that, when mentors were not fulfilling their role, they should not receive the full £40 voucher payment. Yet, in LA1, the PC took a more lenient approach. Only two of the mentors made regular diary entries, despite weekly text message reminders from the researchers. LA1 PC1 noted that, apart from the monthly support group meetings (which some mentors did not attend), she lacked information about how often mentors were seeing their mentees and this made it difficult to impose penalties. The PCs and one mentor thought that it would have been helpful for data from the diaries on the frequency of contacts to be made available to the PCs and that they should give the full voucher payment only to mentors who had completed the diary.						
Barrier - Dual role - motherhood and peer mentoring - Five out of 10 mentors who met with their mentee had a child and most of them were single mothers. For the majority of mentors, childcaring responsibilities had a negative impact on their ability to give time to a mentee.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Pre-requisites for the peer mentor role – In LA3, where professionals experienced difficulties recruiting mentors to the study and retaining them, professionals believed that care leavers needed to have sufficiently 'left the system' to be	1	**No concerns**	**No concerns**	**Serious concerns**	**No concerns** UK-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
effective mentors. The PCs in LA1 and LA2 believed that care leavers should be given an opportunity to mentor, despite the difficulties highlighted earlier. However, they were clear that, in a future study, PCs would require additional time to work one-to-one with each mentor to ensure that they had the required skills to fulfil the mentor role and to explore their ability to manage their time and emotions over the mentoring period.				Only one study contributed to this theme		
Safety concerns - boundaries – Local authority professionals believed that there was a potential for boundaries between mentor and mentee to become blurred, unless they were well defined by the project and monitored by the PC. Although some professionals had expressed concerns about mentees becoming over-reliant on their mentor, there was no evidence of this or indeed of any inappropriate or excessive contact. However, because of the rather chaotic nature of some of the mentees' lives and their difficulty with time management, some mentees appeared to expect their mentor to be able to drop everything and see them at a moment's notice, rather as a friend would do.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Safety concerns - disclosures – Mentors were told during their training that, if they had any concerns about the health or welfare or safety of their mentee, they should immediately pass on the information to the PC, after first informing their mentee. Some professionals thought that mentors would find it difficult to make decisions in relation to sharing information, because of the potentially damaging effect that it could have on their relationship, and that they would need a lot of guidance and support around responsible information sharing to ensure that the best interests of the child are met. However, within this study, a number of mentors were able to report concerns to the PC without this impacting negatively on their relationship with their mentee.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Safety concerns - unsupervised meetings – Many professionals expressed some concerns about meetings being set up between vulnerable young women, without supervision or without sufficient communication between professionals in the mentee's network. In one focus group it was suggested that allegations of misconduct could be made against a mentor by a mentee. However, the main risk identified in the exploratory trial was of mentors failing to inform the PC where and when they were meeting with their mentee, which was in clear breach of the mentor contract. LA1 PC1 admitted that only one of her mentors regularly informed her of when and where she was meeting her mentee.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Undesirable effects of the mentoring intervention – For some, particularly when relationships were inconsistent or ended prematurely, there was the potential for the intervention to be harmful to the mentee. One mentee (1001) lost her first mentor, who dropped out for 'personal' issues', and had to be allocated to a different mentor, who also failed to see her regularly. During training, mentors were told that if they were unable to continue a relationship they should make sure that their mentee did not blame herself or feel responsible for the failure of the relationship. However, this did not happen in the case of mentee 1001. Local authority 1 PC1 said that, although she would not go as far as calling the process damaging, because she could 'rectify some of the stuff', she was concerned about the consequences of having an unreliable mentor for vulnerable young women and, in this study, for mentee 1001 specifically. Apart from this case, in the main, mentees appeared accepting of infrequent contact and/or unreliable mentors, possibly because this represented a repetition and re-enactment of past experiences of rejection and abandonment that they had come to anticipate. Several mentors also admitted feeling frustrated or let down when their mentee failed to turn up to meetings or show sufficient acknowledgement of their efforts. One	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
mentor found it difficult that the other mentors had been successful at making initial contact with their mentee whereas she had not.						
Undesirable effects of the mentoring intervention - Professionals were concerned that the study could bring up difficult feelings for mentors and that the mentors were not being provided with adequate support to help them deal with these feelings. Many sensitive issues were covered in the training, which also encouraged reflection on personal issues. One participant admitted to her group that she had drunk a bottle of alcohol because she felt overwhelmed by the discussion the previous day. Another mentor said that meeting her mentee, who was experiencing similar issues to those that she had faced when she was younger, had reminded her of her past, but that she had been able to 'deal with it' by seeking support from the PC. Local authority 1 PC2 reflected that the study had enabled some participants to come to terms with their past.	1	**No concerns**	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low

Experience of staff and residents of three children's homes undertaking a Kundalini yoga programme (Vallejos 2015)

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Findings - 1. Individual health benefits: Participant responses to the practice of yoga postures and breathing techniques, including how they have used these techniques to help themselves in their everyday life. Themes here include mental health (e.g. stress reduction, sleep, emotional regulation, and energy and concentration levels) and physical changes (e.g. back pain, posture improvement, physical awareness and breathing control).	1	**Minor concerns** One study of moderate risk of bias. This study did not clearly describe the method of thematic analysis	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Findings - 1. Individual social benefits: Social benefits: transferable techniques learned during the yoga	1	**Minor concerns**	**No concerns**	**Serious concerns**	**No concerns**	Very Low

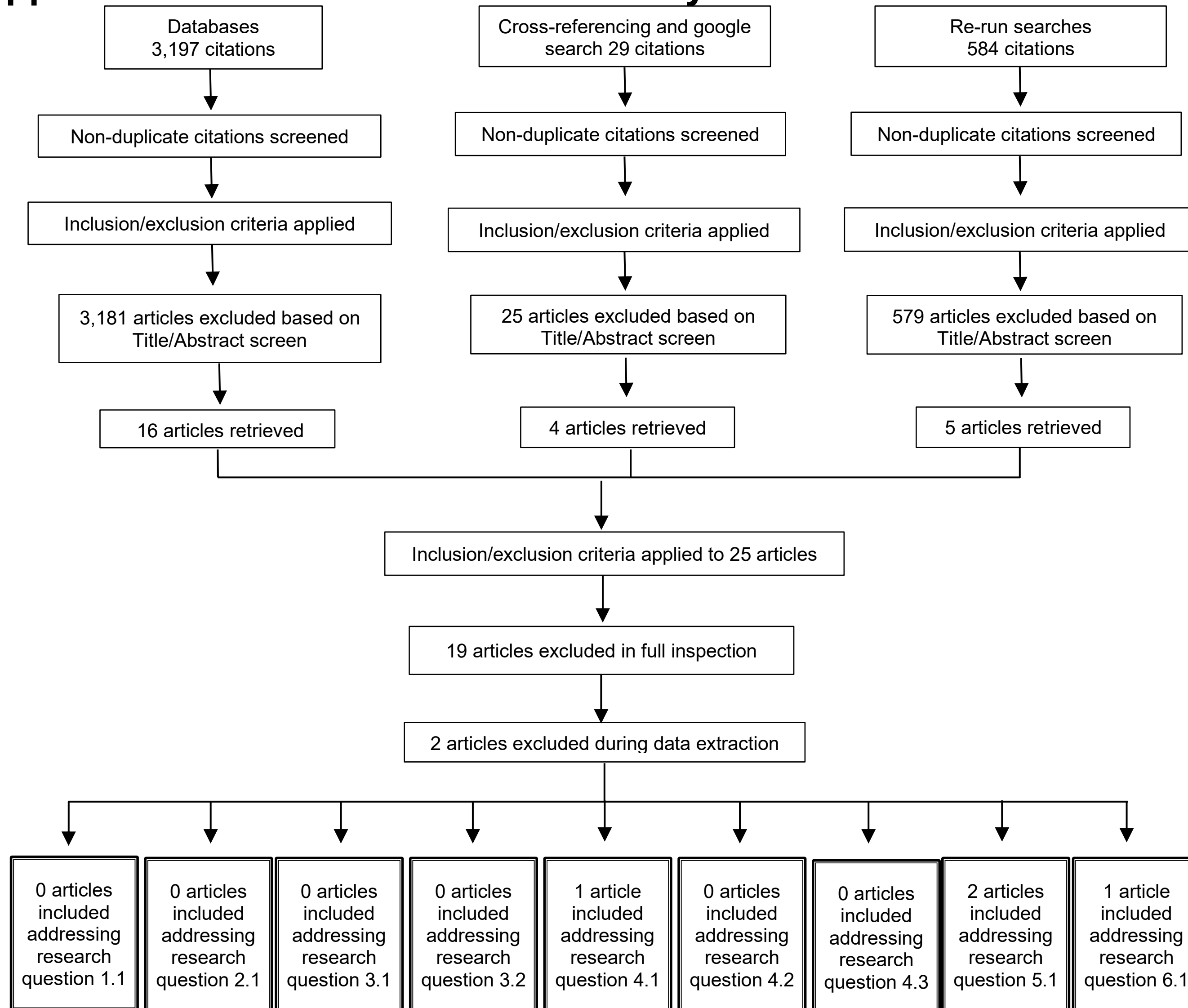
Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
sessions when interacting with others (e.g. feeling more positive and open to others).		One study of moderate risk of bias. This study did not clearly describe the method of thematic analysis		Only one study contributed to this theme	UK-based study	
Implementation of intervention in children's homes Recommendation about the design of yoga programmes in children's home: participant's insights concerning induction and introduction to the sessions, yoga implementation, and continuing yoga practice after the study (e.g. location of the sessions and participation rates). 4. Insights into research in children's home: participant's suggestions to improve the implementation of research studies in children's homes. Themes included promoting engagement among CIC and staff and reducing amount of paperwork.	1	**Minor concerns** One study of moderate risk of bias. This study did not clearly describe the method of thematic analysis	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Individual benefits – Participants reported that the yoga sessions offered beneficial exercises that they used in various contexts, such as before going to bed, emotional challenging times at work as well as at home, and to relieve back pain. Participants reported benefits including physical changes (e.g. increased bodily awareness and body posture) and improved mental health by feeling more energetic, relaxed and calmed. All participants focussed on the mental and emotional benefits and less on the physical benefits of yoga as an exercise. Correspondingly, benefits reported by these participants focussed more on changes in stress reduction, sleep, energy and concentration levels, and emotional regulation both during and outside the children's home. Regarding stress reduction, most participants reported positive effects such as feeling able to relax and stay calm. Some staff noticed positive changes on CIC, describing them as quieter and calmer after the yoga sessions. Most participants reported that yoga augmented the quality and	1	**Minor concerns** One study of moderate risk of bias. This study did not clearly describe the method of thematic analysis	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
duration of their sleep. Many of them used yoga techniques to aid in falling asleep at night. Most participants reported an increased ability to observe and control emotions. Many participants indicated a decrease in their tendency to be emotionally reactive and an increase in the ability to witness their own negative feelings with detachment. Some participants indicated a greater sense of self-awareness and focus on their own health. Regards energy and concentration levels, (Kundalini as energy un-blocker), some participants reported feeling more energetic and being able to focus more on their activities. Physical changes were also reported. An important principle of yoga is learning how to be fully present in the moment-by-moment experience of being alive. Kundalini yoga uses a combination of dynamic postures and breathing exercises to facilitate body awareness. Some staff found specific stretches helpful for their back pain, posture improvement, physical awareness and breathing control.						
Social benefits: enacting togetherness Some participants reported direct benefits from practicing yoga with others, and felt more positive, open to others and, as a consequence, an improvement in their social life in and outside work. Some staff and residents noticed that other people interacted more positively with them. For example, on the first day of the programme we scheduled two evening sessions to allocate CIC and staff from the three children homes (one from 17.00 hrs till 18.00 hrs and the second right after an hour later). One CIC from the second session complained about being "the only girl" and decided not to join in. A CIC from the first group encouraged her to join and gave her reasons including: "you should not miss it", "it is great", "it is not what you think", "it will blow your mind" and so on. The young person from the first group agreed to repeat the session to accompany and support her friend allocated to the second group. This example captures the generosity and good intentions of the	1	**Minor concerns** One study of moderate risk of bias. This study did not clearly describe the method of thematic analysis	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
young person from the first group, willing to repeat the session to ensure her friend would experience the similar benefits that she had experienced. In this altruistic example, mutuality is central and it is facilitating relational depth among CIC as well as acting as role model to staff and other CIC. Some staff and CIC indicated that practicing yoga together brought new opportunities for engaging in conversations related to the yoga practice and it provided a new topic of conversation and opportunities for being together and supports each other.						
Insights on designing a yoga programme in children's homes – Bringing yoga into children's home has unique challenges and opportunities. All interviewees found the yoga sessions enjoyable and most describe them as fun, very good and interesting. Most participants enjoyed the relaxing part and highlighted its calming effects as the outcome they enjoyed the most. All interviewees expressed a willingness to continue the sessions. Nobody indicated any suggestions for improvements, keeping the 1 hr weekly sessions as it was delivered, maintaining its content and the format. While most staff indicated that attendance could improve by keeping the session in-house, a mixture of responses were found among the residents. Questions of implementation among both residents and staff such as "should sessions be compulsory for staff?" came up during several of the interviews.	1	**Minor concerns** One study of moderate risk of bias. This study did not clearly describe the method of thematic analysis	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low
Barriers to attendance – Initially, the yoga sessions were offered within each residential setting; however, due to logistic problems, such as the yoga sessions clashing with other after-school activities, participants suggested holding the sessions in a school hall on a suitable date/time to benefit from the larger space and the opportunity to merge all the CIC and staff within a single venue. Participants also anticipated that an external venue could offer fewer distractions and provide a physical distance from the rather stressful residential	1	**Minor concerns** One study of moderate risk of bias. This study did not clearly describe the method of thematic analysis	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns** UK-based study	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
settings. Having the yoga sessions within the school premises did not suit one of the children's homes because of the long distance they had to travel and, consequently, it was finally decided to merge only two of the children's homes in a nearby church hall and continue with the in-house yoga sessions for the more outlying children's home. When participants were asked about the location, only one indicated a preference for having the sessions in an external venue, while most of the interviews stated that having in-house sessions could improve attendance. Participants reflected on the low participation rates expressing that some staff felt they did not have enough time to attend the sessions or that some CIC were not eager to attend. This meant that the young practitioners supporting those CIC were also unable to attend.Most staff felt that they had to attend the yoga sessions and this pressure created a barrier for engagement. Some staff felt the rationale for participation was not introduced adequately, especially to those with no previous experience in yoga. Some participants felt there was a lack of ownership, consultation and co-production on the implementation of the yoga study. Most participants reported that they would continue to practice yoga, especially among those that experienced benefits. On nature of the context, comments illustrated the stressful nature of the children's home environment as well as some personal reflections from members of staff that influenced participation involvement in the yoga sessions.						

Appendix G – Economic evidence study selection



Appendix H – Economic evidence tables

No economic evidence was identified for this review question.

Appendix I – Health economic model

No economic modelling was undertaken for this review question. A costing analysis was conducted comparing costs associated with MTFC and residential care, detailed in the Economic model section.

Appendix J – Excluded studies

Effectiveness studies

Study	Reason for exclusion
(2008) The effects of early social-emotional and relationship experience on the development of young orphanage children: IX. The effects of the intervention on children's general behavioral development (Battelle Developmental Inventory). Monographs of the Society for Research in Child Development 73(3): 142-166	- Non-OECD country
(2008) The effects of early social-emotional and relationship experience on the development of young orphanage children: VIII. Intervention effects on physical growth. Monographs of the Society for Research in Child Development 73(3): 124-141	- Non-OECD country
Ahrens, KR, Udell, W, Albertson, K et al. (2018) Heart to heart-pilot testing a sexual health training for foster and kinship caregivers. Journal of adolescent health 62(2): S35-S36	- Conference abstract
Ahrens, K, Udell, W, Lowry, S et al. (2020) 32. Training Foster and Kinship Caregivers as a Strategy to Reduce STI and Pregnancy Risks in Foster Youth: results from a Randomized Controlled Trial. Journal of adolescent health 66(2): S17-S18	- Conference abstract

Study	Reason for exclusion
Akin, Becci A, Lang, Kyle, McDonald, Thomas P et al. (2018) Randomized study of PMTO in foster care: Six-month parent outcomes. Research on Social Work Practice 28(7): 810-826	- no outcomes of interest
ANDEL Hans W.H. van; GRIETENS Hans; KNORTH Erik J. (2012) Foster carer-foster child intervention (FFI): an intervention designed to reduce stress in young children placed in a foster family. Adoption and Fostering 36(2): 19-28	- no methods described - Case study [case series] - Intervention description/practice report - Secondary publication of an included study that does not provide any additional relevant information
Anonymous Fostering Children with Medical Needs. The Oklahoma nurse 61(4): 13	- Case study
Apsche, Jack A, Bass, Christopher K, Zeiter, J. Scott et al. (2008) Family mode deactivation therapy in a residential setting: Treating adolescents with conduct disorder and multi-axial diagnosis. International Journal of Behavioral Consultation and Therapy 4(4): 328-339	- Unclear that population are LACYP *[The treatment group had "the MDT group had no referrals for out of home placement". seems like a residential treatment facility rather than a care facility]*

Study	Reason for exclusion
Arnold, Elizabeth Mayfield, Kirk, Raymond S, Roberts, Amelia C et al. (2003) Treatment of incarcerated, sexually-abused adolescent females: an outcome study. Journal of child sexual abuse 12(1): 123-39	- Unclear that population are LACYP
Ashton-Key, M and Jorge, E (2003) Does providing social services with information and advice on immunisation status of "looked after children" improve uptake?. Archives of disease in childhood 88(4): 299-301	- UK - RQ3.2 - Observational *[uncontrolled before and after study and other higher quality evidence available]* - unclear if outcome of interest
Aventin, Aine, Houston, Stan, Macdonald, Geraldine et al. (2014) Utilising a computer game as a therapeutic intervention for youth in residential care: Some preliminary findings on use and acceptability. Children and Youth Services Review 47(part3): 362-369	- To be considered under another review question
Baez, Annecy (2003) A Group Approach to Fostering Self-Cohesion and Developmental Progression in Female Adolescent Group Home Residents. Child & Adolescent Social Work Journal 20(5): 351-373	- no methods described - Data not reported in an extractable format - Non-UK setting [USA]

Study	Reason for exclusion
Bai, Grace Jhe, Leon, Scott C, Garbarino, James et al. (2016) The protective effect of kinship involvement on the adjustment of youth in foster care. Child Maltreatment 21(4): 288-297	No outcome of interest to this review question
Bailey C., Klas A., Cox R. et al. (2019) Systematic review of organisation-wide, trauma-informed care models in out-of-home care (OoHC) settings. Health & social care in the community 27(3): e10-e22	Systematic review checked for relevant citations
Baker, Amy J L, Kurland, David, Curtis, Patrick et al. (2007) Mental health and behavioral problems of youth in the child welfare system: residential treatment centers compared to therapeutic foster care in the Odyssey Project population. Child welfare 86(3): 97-123	Non-randomised controlled study and randomised evidence available - non-UK (USA)
Balluerka, Nekane, Muela, Alexander, Amiano, Nora et al. (2015) Promoting psychosocial adaptation of youths in residential care through animal-assisted psychotherapy. Child abuse & neglect 50: 193-205	- Quasi-experimental study, when randomised evidence available - non-UK *[Spain]*
Banerjee, Leena and Castro, Lorraine E (2005) Intensive day treatment for very young traumatized children in residential care. The handbook of training and practice in infant and preschool mental health.: 233-255	- Intervention description/practice report
Barnett, Erin R; Cleary, Sarah E; Donnelly, Craig L (2018) Psychotropic medications for youth in child welfare: Developing and pilot-testing a field guide for team decision-making. Journal of Public Child Welfare 12(4): 492-513	- non-UK qualitative study

Study	Reason for exclusion
Barron, Ian, Mitchell, David, Yule, William et al. (2017) Pilot study of a group-based psychosocial trauma recovery program in secure accommodation in Scotland. Journal of Family Violence 32(6): 595-606	Unclear if looked after population
Beal, S.J., Nause, K., Lutz, N. et al. (2020) The Impact of Health Care Education on Utilization Among Adolescents Preparing for Emancipation From Foster Care. Journal of Adolescent Health	- non-UK non-randomised study
Bean, Pamela, White, Ladd, Neagle, Lee et al. (2005) Is residential care an effective approach for treating adolescents with co-occurring substance abuse and mental health diagnoses?. Best Practices in Mental Health: An International Journal 1(2): 50-60	[No indication that this population is looked after]
Becker, M G and Barth, R P (2000) Power through choices: the development of a sexuality education curriculum for youths in out-of-home care. Child welfare 79(3): 269-82	- Intervention description/practice report - No outcome of interest reported
Bellamy, Jennifer L; Gopalan, Geetha; Traube, Dorian E (2010) A national study of the impact of outpatient mental health services for children in long-term foster care. Clinical child psychology and psychiatry 15(4): 467-79	- Not an intervention of interest [outpatient mental health services]
Benesh, Andrew S and Cui, Ming (2017) Foster parent training programmes for foster youth: A content review. Child & Family Social Work 22(1): 548-559	Systematic review checked for relevant citations

Study	Reason for exclusion
Benjamin Neelon, S E, Ostbye, T, Hales, D et al. (2016) Preventing childhood obesity in early care and education settings: lessons from two intervention studies. Child: care, health and development 42(3): 351-8	- Unclear that population are LACYP [child day care]
Bernard K.; Hostinar C.E.; Dozier M. (2015) Intervention effects on diurnal cortisol rhythms of Child Protective Services-referred infants in early childhood preschool follow-up results of a randomized clinical trial. JAMA Pediatrics 169(2): 112-119	[Unclear that LACYP were included. Intervention to help divert children away from entering foster care.]
BERGSTROM, Martin and et, al (2020) Interventions in foster family care: a systematic review. Research on Social Work Practice 30(1): 3-18	- systematic review checked for citations
Bernard, Kristin; Lee, Amy Hyoeun; Dozier, Mary (2017) Effects of the ABC Intervention on Foster Children's Receptive Vocabulary: Follow-Up Results From a Randomized Clinical Trial. Child maltreatment 22(2): 174-179	No outcome of interest
BERRY Marianne and et al (2000) Intensive family preservation services: an examination of critical service components. Child and Family Social Work 5(3): 191-203	- Unclear that population are LACYP [Families who are served by the Intensive Family Preservation programme are believed to be at imminent risk of having the child removed from the home.]
Bertram, Julie E; Narendorf, Sarah Carter; McMillen, J Curtis (2013) Pioneering the psychiatric nurse role in foster care. Archives of psychiatric nursing 27(6): 285-92	- no methods described - Non-UK setting - Intervention description/practice report

Study	Reason for exclusion
Besier, T; Fegert, J M; Goldbeck, L (2009) Evaluation of psychiatric liaison-services for adolescents in residential group homes. European psychiatry : the journal of the Association of European Psychiatrists 24(7): 483-9	- non-UK [Germany] - Quasi-experimental [non-randomised controlled study]
Bhattacharya, Swaha (2005) Impact of Counseling Services on the Female Inmates of Short-stay Home. Social Science International 21(2): 68-75	- Unclear that population are LACYP
Bidgood, B A and Pancer, S M (2001) An evaluation of residential treatment programs for young offenders in the Waterloo region. Canadian journal of community mental health = Revue canadienne de sante mentale communautaire 20(2): 125-43	- Unclear that population are LACYP [intervention for youth offenders]
Boel-Studt, Shamra Marie (2017) A quasi-experimental study of trauma-informed psychiatric residential treatment for children and adolescents. Research on Social Work Practice 27(3): 273-282	- non-UK [USA] - Observational [Interrupted time series]
Botfield J.R., Newman C.E., Lenette C. et al. (2018) Using digital storytelling to promote the sexual health and well-being of migrant and refugee young people: A scoping review. Health Education Journal 77(7): 735-748	- Unclear that population are LACYP

Study	Reason for exclusion
Boustani, Maya M, Frazier, Stacy L, Lesperance, Nephtalie et al. (2017) Sexual health programming for vulnerable youth: Improving knowledge, attitudes, and behaviors. Children and Youth Services Review 73: 375-383	- Unclear that population are LACYP [In foster care, without placement, undergoing a child welfare investigation or experiencing serious problems at home, and thus temporarily placed at this shelter for three to six weeks.]
Brannstrom, Lars; Vinnerljung, Bo; Hjern, Anders (2013) Long-term outcomes of Sweden's Contact Family Program for children. Child abuse & neglect 37(6): 404-14	- Unclear that population are LACYP
Bruce, Jacqueline, McDermott, Jennifer Martin, Fisher, Philip A et al. (2009) Using behavioral and electrophysiological measures to assess the effects of a preventive intervention: a preliminary study with preschool-aged foster children. Prevention science : the official journal of the Society for Prevention Research 10(2): 129-40	- No outcome of interest reported
Budd K.S.; Holdsworth M.J.A.; HoganBruen K.D. (2006) Antecedents and concomitants of parenting stress in adolescent mothers in foster care. Child Abuse and Neglect 30(5): 557-574	- Not an investigation of an intervention
Callaghan J., Young B., Pace F. et al. (2004) Evaluation of a New Mental Health Service for Looked after Children. Clinical Child Psychology and Psychiatry 9(1): 130-148	- UK - Observational [uncontrolled before and after study]

Study	Reason for exclusion
CAMERON Gary and BIRNIE-LEFCOVITCH Shelly (2000) Parent mutual aid organisations in child welfare demonstration project: a report of outcomes. Children and Youth Services Review 22(6): 421-440	- Unclear that population are LACYP [appears to be children on the edge of care. Intervention aimed at parents.]
Cavalari R.N.S. and Romanczyk R.G. Supervision of children with an autism spectrum disorder in the context of unintentional injury. Research in Autism Spectrum Disorders 6(2): 618-627	- Unclear that population are LACYP
Cepukiene, Viktorija and Pakrosnis, Rytis (2011) The outcome of Solution-Focused Brief Therapy among foster care adolescents: The changes of behavior and perceived somatic and cognitive difficulties. Children and Youth Services Review 33(6): 791-797	- non-UK [Lithuania] - Observational [uncontrolled before and after study]
Cepukiene, Viktorija, Pakrosnis, Rytis, Ulinskaite, Ginte et al. (2018) Outcome of the solution-focused self-efficacy enhancement group intervention for adolescents in foster care setting. Children and Youth Services Review 88: 81-87	- Quasi-experimental [NRCT] - Lithuanian
Chamberlain, Patricia, Brown, C Hendricks, Saldana, Lisa et al. (2008) Engaging and recruiting counties in an experiment on implementing evidence-based practice in California. Administration and policy in mental health 35(4): 250-60	- No outcome of interest reported [meta-research]

Study	Reason for exclusion
Chamberlain, Patricia and Saldana, Lisa (2016) Scaling up treatment foster care Oregon: A randomized trial of two implementation strategies. Family-based prevention programs for children and adolescents: Theory, research, and large-scale dissemination.: 186-205	- Non-UK setting - Book
Chamberlain, Patricia, Saldana, Lisa, Brown, C. Hendricks et al. (2011) Implementation of multidimensional treatment foster care in California: A randomized control trial of an evidence-based practice. Using evidence to inform practice for community and organizational change.: 218-234	- Book
Chamberlain, Patricia and Smith, Dana K (2003) Antisocial behavior in children and adolescents: The Oregon Multidimensional Treatment Foster Care model. Evidence-based psychotherapies for children and adolescents.: 282-300	- Review article but not a systematic review
Chamberlain, Patricia and Smith, Dana K (2005) Multidimensional Treatment Foster Care: A Community Solution for Boys and Girls Referred From Juvenile Justice. Psychosocial treatments for child and adolescent disorders: Empirically based strategies for clinical practice., 2nd ed.: 557-573	- Book
Chernego, Daria I, McCall, Robert B, Wanless, Shannon B et al. (2018) The effect of a social-emotional intervention on the development of preterm infants in institutions. Infants & Young Children 31(1): 37-52	- Non-OECD country
Chinitz, Susan, Guzman, Hazel, Amstutz, Ellen et al. (2017) Improving outcomes for babies and toddlers in child welfare: A model for infant mental health intervention and collaboration. Child abuse & neglect 70: 190-198	- Quasi-experimental study -USA

Study	Reason for exclusion
Chisolm, Deena J, Scribano, Philip V, Purnell, Tanjala S et al. (2009) Development of a computerized medical history profile for children in out-of-home placement using Medicaid data. Journal of health care for the poor and underserved 20(3): 748-55	- No outcome of interest reported [descriptions of the contents of these medical profiles] - Not an intervention of interest [Study described the development of a computerized medical history profile for children in out-of-home placement using Medicaid data so that LACYP had a continuous record should placement breakdown occur (likely standard practice already)]
Chiumento, Anna, Nelki, Julia, Dutton, Carl et al. (2011) School-based mental health service for refugee and asylum seeking children: Multi-agency working, lessons for good practice. Journal of Public Mental Health 10(3): 164-177	- Unclear that population are LACYP
Cohen, David, Lacasse, Jeffrey R, Duan, Rui et al. (2013) CriticalThinkRx may reduce psychiatric prescribing to foster youth: Results from an intervention trial. Research on Social Work Practice 23(3): 284-293	- non-UK - Quasi-experimental [non-randomised controlled study]
Colarossi, Lisa, Dean, Randa, Stevens, Alex et al. (2019) Sexual and reproductive health capacity building for foster care organizations: A systems model. Children and Youth Services Review 105	- non-UK observational study
Coll, Kenneth M, Freeman, Brenda J, Scholl, Stacey et al. (2018) Challenges and culturally relevant treatment strategies for American Indian youth in therapeutic residential care: A pilot study. Journal of Child and Adolescent Counseling 4(3): 253-264	- Not an investigation of an intervention - Unclear that population are LACYP

Study	Reason for exclusion
Collins, Jennifer L (2016) Integrative Review: Delivery of Healthcare Services to Adolescents and Young Adults During and After Foster Care. Journal of pediatric nursing 31(6): 653-666	- Systematic review, checked for citations
Combs, Katie Massey, Aparicio, Elizabeth M, Prince, Dana M et al. (2019) Evidence-based sexual health programs for youth involved with juvenile justice and child welfare systems: Outcomes across settings. Children and Youth Services Review 100: 64-69	- Observational [uncontrolled before and after study] - non-UK [USA]
Conn, Anne-Marie, Calais, Chante, Szilagyi, Moira et al. (2014) Youth in out-of-home care: Relation of engagement in structured group activities with social and mental health measures. Children and Youth Services Review 36: 201-205	- Not an investigation of an intervention
Conn, Anne-Marie, Szilagyi, Moira A, Jee, Sandra H et al. (2015) Mental health outcomes among child welfare investigated children: In-home versus out-of-home care. Children and Youth Services Review 57: 106-111	- Not an intervention of interest [out of home care compared to remaining with birth parent]
Conniff, Kathryn M, Scarlett, Janet M, Goodman, Shawn et al. (2005) Effects of a pet visitation program on the behavior and emotional state of adjudicated female adolescents. Anthrozoos 18(4): 379-395	- Unclear that population are LACYP [adjudicated population with parents]

Study	Reason for exclusion
Craven P.A. and Lee R.E. (2010) Transitional group therapy to promote resiliency in first-time foster children: A pilot study. Journal of Family Psychotherapy 21(3): 213-224	- Observational [uncontrolled before and after study] - non-UK [USA]
Cronin, Jacob; Heflin, Colleen; Price, Ashley (2014) Teaching teens about sex: a fidelity assessment model for Making Proud Choices. Evaluation and program planning 46: 94-102	- non-UK [USA] - Observational [uncontrolled before and after study]
Crosby, Shantel D, Somers, Cheryl L, Day, Angelique G et al. (2017) Examining school attachment, social support, and trauma symptomatology among court-involved, female students. Journal of Child and Family Studies 26(9): 2539-2546	- Not an investigation of an intervention
Crosland, Kimberly A, Cigales, Maricel, Dunlap, Glen et al. (2008) Using staff training to decrease the use of restrictive procedures at two facilities for foster care children. Research on Social Work Practice 18(5): 401-409	- No outcome of interest reported [rate of restraint procedures]
Cross, Theodore P, Leavey, Joseph, Mosley, Peggy R et al. (2004) Outcomes of specialized foster care in a managed child welfare services network. Child welfare 83(6): 533-64	- non-UK - Observational

Study	Reason for exclusion
	[uncontrolled before and after study]
Dale H., Watson L., Adair P. et al. (2016) Looked after young people: Reducing health inequalities through an evidence- and theory-informed intervention. Health Education Journal 75(7): 811-822	- UK - Observational [uncontrolled before and after study]
Debnath, Ranjan, Tang, Alva, Zeanah, Charles H et al. (2019) The Long-term effects of institutional rearing, foster care intervention and disruptions in care on brain electrical activity in adolescence. Developmental science: e12872	- Non-OECD country
DeJong, Judith A and Hektner, Joel M (2006) L3 Therapeutic Model site. American Indian and Alaska native mental health research (Online) 13(2): 79-122	- Unclear that population are LACYP
DIMARO Lian; MOGHADDAM Nima; KYTE Zoe (2014) An evaluation of psychological consultation to social workers. Adoption and Fostering 38(3): 223-237	- to be considered under another review question
Dixon, Jo, Biehal, Nina, Green, Jonathan et al. (2014) Trials and tribulations: Challenges and prospects for randomised controlled trials of social work with children. British Journal of Social Work 44(6): 1563-1581	- No outcome of interest reported [meta-research]
Dominick, Gregory M, Tudose, Alina, Pohlig, Ryan T et al. (2016) Sustainability of physical activity promoting environments and influences on	- No outcome of interest reported [sustainability of an intervention]

Study	Reason for exclusion
sustainability following a structural intervention in residential children's homes. Health education research 31(2): 207-19	- Non-UK setting [USA]
Domon-Archambault, V., Terradas, M.M., Drieu, D. et al. (2020) Mentalization-Based Training Program for Child Care Workers in Residential Settings. Journal of Child and Adolescent Trauma 13(2): 239-248	- non-UK based uncontrolled before and after study
Dore, Martha M and Alvarez de Toledo, Borja (2011) FASST: a residential program. Behavioral healthcare 31(8): 27-9	- Intervention description/practice report - Data not reported in an extractable format
Dorsey, Shannon, Pullmann, Michael D, Berliner, Lucy et al. (2014) Engaging foster parents in treatment: a randomized trial of supplementing trauma-focused cognitive behavioral therapy with evidence-based engagement strategies. Child abuse & neglect 38(9): 1508-20	No outcomes of interest reported
Dozier, Mary, Lindhiem, Oliver, Ackerman, John P et al. (2005) Attachment and Biobehavioral Catch-Up: An Intervention Targeting Empirically Identified Needs of Foster Infants. Enhancing early attachments: Theory, research, intervention, and policy.: 178-194	- Not a relevant study design
DRKS00010915 (2016) Evaluation of a trauma-pedagogic group intervention for young unaccompanied refugees: "Mein Weg". Http://www.who.int/trialsearch/trial2.aspx? Trialid=drks00010915	- Trial registration

Study	Reason for exclusion
DRKS00014581 (2018) Affective Dysregulation in Childhood – Optimizing Prevention and Treatment (ADOPT): efficacy of a personalized modular outpatient treatment program to treat affective dysregulation and comorbid disorders in out-of-home care children. Http://www.who.int/trialsearch/trial2.aspx? Trialid=drks00014581	- Trial registration
DRKS00017453 (2019) Improving mental health care for unaccompanied young refugees through a stepped care approach.	- Trial registration
Duquin, Mary, McCrea, James, Fetterman, David et al. (2004) A Faith-Based Intergenerational Health and Wellness Program. Intergenerational relationships: Conversations on practice and research across cultures.: 105-118	- Observational [uncontrolled BA study] - non-UK [USA] - Mixed methods
Durbeej, Natalie and Hellner, Clara (2017) Improving school performance among Swedish foster children: A quasi-experimental study exploring outcomes of the Skolfam model. Children and Youth Services Review 82: 466-476	-uncontrolled before and after study -Sweden
Durka, Katie and Hacker, Thomas (2015) The experience of receiving and delivering consultation in a residential childcare setting for looked-after and accommodated children: A sequential exploratory design. Child Care in Practice 21(4): 392-407	To be considered for inclusion under another review question

Study	Reason for exclusion
Edwards, M (2005) Evaluation of the application of the "Incredible Years" programme with foster carers of looked after children in Gwynedd.: 43pp	- RCT protocol [controlled trial abstract]
ESTOURA Dora and ROBERTO Sandra (2019) The RAISE Model: psychosocial intervention in residential care for refugee unaccompanied minors. Residential Treatment for Children and Youth 36(2): 102-117	- Intervention description/practice report
Evans, Alexandra, Dowda, Marsha, Saunders, Ruth et al. (2009) The relationship between the food environment and fruit and vegetable intake of adolescents living in Residential Children's Homes. Health education research 24(3): 520-30	- Observational [correlation study (cross-sectional)] - non-UK [USA]
Everson-Hock, E S, Jones, R, Guillaume, L et al. (2012) The effectiveness of training and support for carers and other professionals on the physical and emotional health and well-being of looked-after children and young people: a systematic review. Child: care, health and development 38(2): 162-74	- a systematic review checked for relevant citations
Farmer, Elizabeth M. Z and Lippold, Melissa A (2016) The need to do it all: Exploring the ways in which treatment foster parents enact their complex role. Children and Youth Services Review 64: 91-99	- No outcome of interest reported
Farmer, Elizabeth M. Z, Wagner, H. Ryan, Burns, Barbara J et al. (2003) Treatment foster care in a system of care: Sequences and correlates of residential placements. Journal of Child and Family Studies 12(1): 11-25	- no outcomes of interest to this review question

Study	Reason for exclusion
Farragher B. and Yanosy S. (2005) Creating a trauma-sensitive culture in residential treatment. Therapeutic Communities: the International Journal for Therapeutic and Supportive Organizations 26(1): 93-109	- Case study [case series]
Fawley-King, Kya, Trask, Emily V, Zhang, Jinjin et al. (2017) The impact of changing neighborhoods, switching schools, and experiencing relationship disruption on children's adjustment to a new placement in foster care. Child abuse & neglect 63: 141-150	- Not an investigation of an intervention
Fisher, P A, Gunnar, M R, Chamberlain, P et al. (2000) Preventive intervention for maltreated preschool children: impact on children's behavior, neuroendocrine activity, and foster parent functioning. Journal of the American Academy of Child and Adolescent Psychiatry 39(11): 1356-64	- quasi-experimental study -USA
Fisher, Philip A and Chamberlain, Patricia (2000) Multidimensional treatment foster care: A program for intensive parenting, family support, and skill building. Journal of Emotional and Behavioral Disorders 8(3): 155-164	- Review article but not a systematic review
Fisher, Philip A and Chamberlain, Patricia (2001) Multidimensional treatment foster care: A program for intensive parenting, family support, and skill building. Making schools safer and violence free: Critical issues, solutions, and recommended practices.: 140-149	- Duplicate reference
Fisher, Philip A; Van Ryzin, Mark J; Gunnar, Megan R (2011) Mitigating HPA axis dysregulation associated with placement changes in foster care. Psychoneuroendocrinology 36(4): 531-9	Unclear if outcome of interest (ooo)

Study	Reason for exclusion
Fontanella, Cynthia A, Gupta, Lipi, Hiance-Steelesmith, Danielle L et al. (2015) Continuity of care for youth in foster care with serious emotional disturbances. Children and Youth Services Review 50: 38-43	- No outcome of interest reported [odds of receipt of continuity of care]
Fox, Robert A, Burke, Amie M, Fung, Michael P et al. (2013) A long-term leisure program for individuals with intellectual disability in residential care settings: Research to practice. Education and Training in Autism and Developmental Disabilities 48(3): 392-399	- Unclear that population are LACYP [adults with learning disabilities in residential settings] - No outcome of interest reported
Francis, Yvonne J, Bennion, Kim, Humrich, Sarah et al. (2017) Evaluating the outcomes of a school based Theraplay project for looked after children. Educational Psychology in Practice 33(3): 308-322	Uncontrolled before and after study -mixed methods (to be considered under another review question)
Fragkaki, I. and Cima, M. (2019) The effect of oxytocin administration on empathy and emotion recognition in residential youth: A randomized, within-subjects trial. Hormones and Behavior 114: 104561	- not an intervention of interest - psychological pharmacological treatment
Frederico, Margarita, Long, Maureen, McNamara, Patricia et al. (2017) Improving outcomes for children in out-of-home care: The role of therapeutic foster care. Child & Family Social Work 22(2): 1064-1074	- Quasi-experimental [Non-randomised controlled trial] - non-UK [Australia]
Galvin, E., O'Donnell, R., Skouteris, H. et al. (2019) Interventions and practice models for improving health and psychosocial outcomes of children and	Systematic review protocol

Study	Reason for exclusion
young people in out-of-home care: Protocol for a systematic review. BMJ Open 9(9): e031362	
Gamache, Susan, Mirabell, Dianne, Avery, Lisa et al. (2006) Early childhood developmental and nutritional training for foster parents. Child & Adolescent Social Work Journal 23(56): 501-511	- No outcome of interest reported
Garner, Bryan R, Godley, Mark D, Funk, Rodney R et al. (2010) The Washington Circle continuity of care performance measure: predictive validity with adolescents discharged from residential treatment. Journal of substance abuse treatment 38(1): 3-11	- Unclear that population are LACYP [residential treatment for substance abuse, many from single parent families]
Gatwiri, K., Mcpherson, L., Mcnamara, N. et al. (2019) From Adversity to Stability to Integration: how One Australian Program is Making a Difference in Therapeutic Foster Care. Journal of Child and Adolescent Trauma 12(3): 387-398	- non-UK – case series
Geltman, Paul L, Grant-Knight, Wanda, Ellis, Heidi et al. (2008) The "lost boys" of Sudan: use of health services and functional health outcomes of unaccompanied refugee minors resettled in the U.S. Journal of immigrant and minority health 10(5): 389-96	- Not an intervention of interest [no specific intervention was tested, only receipt of counselling and other mental health services]
Gephart, Elizabeth F and Loman, Deborah G (2013) Use of prevention and prevention plus weight management guidelines for youth with developmental disabilities living in group homes. Journal of Pediatric Health Care 27(2): 98-108	- Observational [uncontrolled before and after study] - subgroup of interest

Study	Reason for exclusion
	[youth with developmental disabilities living in group homes] - non-UK [USA]
Gephart, Elizabeth F and Loman, Deborah G (2013) Use of prevention and prevention plus weight management guidelines for youth with developmental disabilities living in group homes. Journal of pediatric health care : official publication of National Association of Pediatric Nurse Associates & Practitioners 27(2): 98-108	- Unclear that population are LACYP [Children that were wards of the state excluded from this study]
Godley, MD, Godley, SH, Dennis, ML et al. (2002) Preliminary outcomes from the assertive continuing care experiment for adolescents discharged from residential treatment. Journal of substance abuse treatment 23(1): 21-32	- Unclear that population are LACYP [treatment of substance abuse, LACYP
Grace, Rebekah, Miller, Kim, Blacklock, Sue et al. (2018) The Kids Say project: Supporting children to talk about their experiences and to engage in decision-making. Australian Social Work 71(3): 292-305	- non-UK qualitative study
Green, Rex S and Ellis, Peter T (2007) Linking structure, process, and outcome to improve group home services for foster youth in California. Evaluation and program planning 30(3): 307-17	- Not an intervention of interest [group home] - No outcome of interest reported [descriptive outcomes reported] - Non-UK setting

Study	Reason for exclusion
Grey I., Mesbur M., Lydon H. et al. (2018) An evaluation of positive behavioural support for children with challenging behaviour in community settings. Journal of Intellectual Disabilities 22(4): 394-411	- Case study [case series]
Guyon-Harris K.L., Humphreys K.L., Fox N.A. et al. (2018) Course of Disinhibited Social Engagement Disorder From Early Childhood to Early Adolescence. Journal of the American Academy of Child and Adolescent Psychiatry 57(5): 329	- Non-OECD country
Habib, Mandy, Labruna, Victor, Newman, Jennifer et al. (2013) Complex histories and complex presentations: Implementation of a manually-guided group treatment for traumatized adolescents. Journal of Family Violence 28(7): 717-728	- Observational [uncontrolled before and after study] - non-UK [USA]
Hambrick, Erin P, Oppenheim-Weller, Shani, N'zi, Amanda M et al. (2016) Mental health interventions for children in foster care: A systematic review. Children and Youth Services Review 70: 65-77	Systematic review checked for relevant citations
Handwerk, Michael L, Clopton, Kerri, Huefner, Jonathan C et al. (2006) Gender differences in adolescents in residential treatment. The American journal of orthopsychiatry 76(3): 312-24	- Not an investigation of an intervention

Study	Reason for exclusion
Handwerk, Michael L, Huefner, Jonathan C, Ringle, Jay L et al. (2008) The role of therapeutic alliance in therapy outcomes for youth in residential care. Residential Treatment for Children & Youth 25(2): 145-165	- non-UK [USA] - Observational [interrupted time series]
Hansson, Kjell and Olsson, Martin (2012) Effects of multidimensional treatment foster care (MTFC): Results from a RCT study in Sweden. Children and Youth Services Review 34(9): 1929-1936	- Unclear that population are LACYP [participants at risk of out of home care (edge of care)]
Hermenau, Katharin, Goessmann, Katharina, Rygaard, Niels Peter et al. (2017) Fostering Child Development by Improving Care Quality: A Systematic Review of the Effectiveness of Structural Interventions and Caregiver Trainings in Institutional Care. Trauma, violence & abuse 18(5): 544-561	Systematic review checked for relevant citations
Hodgkins, Candace; Frost-Pineda, Kimberly; Gold, Marks S (2007) Weight gain during substance abuse treatment: the dual problem of addiction and overeating in an adolescent population. Journal of addictive diseases 26suppl1: 41-50	- Unclear that population are LACYP [adolescent males, ages 12 to 18 years, which have a primary or secondary diagnosis of substance abuse and have temporary residence in a treatment center that addresses alcohol and/or drug abuse issues in the Jacksonville Metropolitan area.]
HOLDEN E. Wayne and et al (2007) Outcomes of a randomized trial of continuum of care services for children in a child welfare system. Child Welfare Journal 86(6): 89-114	- Unclear that population are LACYP

Study	Reason for exclusion
	[mixed population of participants in custody of parents and those under state custody]
Holden, E. Wayne, O'Connell, Susan Rousseau, Connor, Tim et al. (2002) Evaluation of the Connecticut Title IV-E Waiver Program: Assessing the effectiveness, implementation fidelity, and cost/benefits of a continuum of care. Children and Youth Services Review 24(67): 409-430	- Unclear that population are LACYP [mixed population of participants in custody of parents and those under state custody]
Holland, Patrick, Gorey, Kevin M, Lindsay, Anne et al. (2004) Prevention of Mental Health and Behavior Problems Among Sexually Abused Aboriginal Children in Care. Child & Adolescent Social Work Journal 21(2): 109-115	- non-UK [USA] - Quasi-experimental [Non-randomised comparative study]
Holmes, Lisa, Ward, Harriet, McDermid, Samantha et al. (2012) Calculating and comparing the costs of multidimensional treatment foster care in English local authorities. Children and Youth Services Review 34(11): 2141-2146	No outcome of interest reported
Horwitz, S M; Owens, P; Simms, M D (2000) Specialized assessments for children in foster care. Pediatrics 106(1pt1): 59-66	No outcomes of interest for this review question
Hubbard, Kristie L, Bandini, Linda G, Folta, Sara C et al. (2015) Impact of a Smarter Lunchroom intervention on food selection and consumption among adolescents and young adults with intellectual and developmental disabilities in a residential school setting. Public health nutrition 18(2): 361-71	- Unclear that population are LACYP [a private specialized residential school for students with intellectual and developmental disabilities]

Study	Reason for exclusion
Huefner, Jonathan C, Pick, Robert M, Smith, Gail L et al. (2015) Parental involvement in residential care: Distance, frequency of contact, and youth outcomes. Journal of Child and Family Studies 24(5): 1481-1489	- Observational [association study] - non-UK [USA]
Hummer, Victoria Latham, Dollard, Norin, Robst, John et al. (2010) Innovations in implementation of trauma-informed care practices in youth residential treatment: a curriculum for organizational change. Child welfare 89(2): 79-95	- Review article but not a systematic review
Humphreys K.L., Miron D., McLaughlin K.A. et al. (2018) Foster care promotes adaptive functioning in early adolescence among children who experienced severe, early deprivation. Journal of child psychology and psychiatry, and allied disciplines 59(7): 811-821	- Non-OECD country
Hunt, Kathryn Frances (2010) The impact of brief play therapy training on the emotional awareness of care workers in a young children's residential care setting in Australia. British Journal of Guidance & Counselling 38(3): 287-299	To be considered under another review question
IRCT2016040621090N2 (2016) The effect of developmental stimulation program on developmental criterion in children 1-3 years old of foster care. Http://www.who.int/trialsearch/trial2.aspx? Trialid=irct2016040621090n2	- Non-OECD country

Study	Reason for exclusion
ISRCTN18374094 (2017) Supporting foster carers to improve mental health outcomes of young children in foster care: a feasibility study. Http://www.who.int/trialsearch/trial2.aspx? Trialid=isrctn18374094	- Trial registration
ISRCTN80786829 (2016) Supporting looked after children and care leavers in decreasing drugs and alcohol. Http://www.who.int/trialsearch/trial2.aspx? Trialid=isrctn80786829	- Trial registration
ISRCTN90349442 (2016) Herts and Minds: supporting the emotional wellbeing of looked after children in Hertfordshire. Http://www.who.int/trialsearch/trial2.aspx? Trialid=isrctn90349442	- Trial registration
Jani, Jayshree S (2017) Reunification is not enough: Assessing the needs of unaccompanied migrant youth. Families in Society 98(2): 127-136	- to be considered under another review question
Johnson, Sara B and Pryce, Julia M (2013) Therapeutic mentoring: reducing the impact of trauma for foster youth. Child welfare 92(3): 9-25	- Quasi-experimental [non-randomised controlled trial] - non-UK [USA]
Johnson, Sara B; Pryce, Julia M; Martinovich, Zoran (2011) The role of therapeutic mentoring in enhancing outcomes for youth in foster care. Child welfare 90(5): 51-69	- uncontrolled before and after study - USA

Study	Reason for exclusion
Joiner, Valerie C and Buttell, Frederick P (2018) Investigating the usefulness of trauma-focused cognitive behavioral therapy in adolescent residential care. Journal of evidence-informed social work 15(4): 457-472	- Unclear that population are LACYP [data from a psychiatric residential treatment facility]
JONES Roy and et al (2012) The effectiveness of interventions aimed at improving access to health and mental health services for looked-after children and young people: a systematic review. Families, Relationships and Societies relationshipsandsocieties: 71-85	Systematic review checked for relevant citations
Jonkman, Caroline S, Schuengel, Carlo, Oosterman, Mirjam et al. (2017) Effects of Multidimensional Treatment Foster Care for Preschoolers (MTFC-P) for young foster children with severe behavioral disturbances. Journal of Child and Family Studies 26(5): 1491-1503	Non-randomised study Non-UK
Kang, Hyunah, Chung, Ick-Joong, Chun, JongSerl et al. (2014) The outcomes of foster care in South Korea ten years after its foundation: A comparison with institutional care. Children and Youth Services Review 39: 135-143	- Not an intervention of interest
Kelly C., Allan S., Roscoe P. et al. (2003) The mental health needs of looked after children: An integrated multi-agency model of care. Clinical Child Psychology and Psychiatry 8(3): 323-335	- Intervention description/practice report
Kerns, Suzanne E U, Pullmann, Michael D, Negrete, Andrea et al. (2016) Development and Implementation of a Child Welfare Workforce Strategy to Build a Trauma-Informed System of Support for Foster Care. Child maltreatment 21(2): 135-46	- No outcome of interest reported [self-reported competency and knowledge]

Study	Reason for exclusion
Kessler, Ronald C, Pecora, Peter J, Williams, Jason et al. (2008) Effects of enhanced foster care on the long-term physical and mental health of foster care alumni. Archives of general psychiatry 65(6): 625-33	- Quasi experimental - USA
Kim, Tae Im; Shin, Yeong Hee; White-Traut, Rosemary C (2003) Multisensory intervention improves physical growth and illness rates in Korean orphaned newborn infants. Research in nursing & health 26(6): 424-33	- not an intervention of interest
Klag, Stefanie, Fox, Tara, Martin, Graham et al. (2016) Evolve Therapeutic Services: A 5-year outcome study of children and young people in out-of-home care with complex and extreme behavioural and mental health problems. Children and Youth Services Review 69: 268-274	- uncontrolled before and after study - Australia
Kopetz, Catalina, Woerner, Jacqueline I, MacPherson, Laura et al. (2019) Early psychosocial deprivation and adolescent risk-taking: The role of motivation and executive control. Journal of experimental psychology. General 148(2): 388-399	- Non-OECD country
Krakow, B, Sandoval, D, Schrader, R et al. (2001) Treatment of chronic nightmares in adjudicated adolescent girls in a residential facility. The Journal of adolescent health : official publication of the Society for Adolescent Medicine 29(2): 94-100	- Unclear that population are LACYP [The WGS is a state school for girls between the ages of 13 to 18 years who have been convicted of felonies. These girls are sentenced involuntarily to the school and spend an average of 6 to 10 months there.]
Kus, Thomas and Payne, Heather (2009) Disabled children in foster care: A review of interventions that improve health outcomes for children and support	Systematic review checked for relevant citations

Study	Reason for exclusion
carers. Disabled children living away from home in foster care and residential settings.: 67-73	
Kutash, Krista, Acri, Mary, Pollock, Michele et al. (2014) Quality indicators for multidisciplinary team functioning in community-based children's mental health services. Administration and policy in mental health 41(1): 55-68	- Unclear that population are LACYP ["at risk for out of home placement"]
Laan N.M.A., Loots G.M.R., Janssen C.G.C. et al. (2001) Foster care for children with mental retardation and challenging behaviour: A follow-up study. British Journal of Developmental Disabilities 47(1): 3-13	- Comparator in study does not match that specified in protocol [non-comparative]
Landsverk, John A, Burns, Barbara J, Stambaugh, Leyla Faw et al. (2009) Psychosocial interventions for children and adolescents in foster care: review of research literature. Child welfare 88(1): 49-69	Systematic review checked for relevant citations
Lardner, Mark D (2015) Are restrictiveness of care decisions based on youth level of need? A multilevel model analysis of placement levels using the child and adolescent needs and strengths assessment. Residential Treatment for Children & Youth 32(3): 195-207	- No outcome of interest reported [study reports on the relationship between initial need and restrictiveness of placement]
LARZELERE Robert E. and et al (2001) Outcomes of residential treatment: a study of the adolescent clients of girls and boys town. Child and Youth Care Forum 30(3): 175-185	- Data not reported in an extractable format [no standard deviations reported]
Lau, Erica Y; Saunders, Ruth P; Pate, Russell R (2016) Factors Influencing Implementation of a Physical Activity Intervention in Residential Children's	- No outcome of interest reported [factors predicting implementation outcomes only]

Study	Reason for exclusion
Homes. Prevention science : the official journal of the Society for Prevention Research 17(8): 1002-1011	
Leck, R., Parkes, R., Williams, A. et al. (2019) Community Dentistry: A Service Evaluation Study for 'Looked After Children' in England and Wales. Oral health & preventive dentistry 17(4): 303-308	Survey extracted views (not true qualitative)
Lederman C. and Osofsky J.D. (2008) A judicial-mental health partnership to heal young children in juvenile court. Infant Mental Health Journal 29(1): 36-47	- Intervention description/practice report - Case study
Lee, Kyunghee and Lee, Jung-Sook (2016) Parental Book Reading and Social-Emotional Outcomes for Head Start Children in Foster Care. Social work in public health 31(5): 408-18	No outcome of interest to this review question
Lee, Linda J (2013) Visit consistency and functioning among foster children in residential treatment. Residential Treatment for Children & Youth 30(3): 187-201	- non-UK [USA] - Observational [correlation study]
Lee, K. (2020) Long-term Head Start Impact on developmental outcomes for children in foster care. Child Abuse and Neglect 101: 104329	- Committee had previously stated they were not interested in this intervention since it offered services on offer in the UK already

Study	Reason for exclusion
Leon, Scott C, Saucedo, Deborah J, Jachymiak, Kristin et al. (2016) Keeping it in the family: The impact of a Family Finding intervention on placement, permanency, and well-being outcomes. Children and Youth Services Review 70: 163-170	- Quasi-experimental [non-randomised controlled trial] - non-UK [USA]
Leve, Leslie D, Kerr, David C. R, Harold, Gordon T et al. (2013) Young adult outcomes associated with teen pregnancy among high-risk girls in a randomized controlled trial of Multidimensional Treatment Foster Care. Journal of Child & Adolescent Substance Abuse 22(5): 421-434	- Not an investigation of an intervention [association between pregnancy and baseline marijuana use and long term outcomes]
LEWIS Helen (2000) Improving health care and health education: for looked after young people. Childrens Residential Care Unit Newsletter 13: 5-6	- Quasi-experimental
Lim, Sungwoo; Singh, Tejinder P; Gwynn, R Charon (2017) Impact of a Supportive Housing Program on Housing Stability and Sexually Transmitted Infections Among Young Adults in New York City Who Were Aging Out of Foster Care. American journal of epidemiology 186(3): 297-304	- no outcomes of interest to this research question
Lin, Shih-Fan, Binggeli-Vallarta, Amy, Cervantes, Griselda et al. (2018) Process Evaluation of an Early Care and Education Intervention: The California Childhood Obesity Research Demonstration Study (CA-CORD). Health promotion practice: 1524839918786953	- Unclear that population are LACYP [Child day care]

Study	Reason for exclusion
Lind, Teresa, Lee Raby, K, Caron, E B et al. (2017) Enhancing executive functioning among toddlers in foster care with an attachment-based intervention. Development and psychopathology 29(2): 575-586	- no outcomes of interest to this research question
Littlewood, K.; Cooper, L.; Pandey, A. (2020) Safety and placement stability for the Children's Home Network kinship navigator program. Child Abuse and Neglect 106: 104506	- large proportion were informal kinship care and adoption - "The results suggest that CHN-KN kept children safe and out of the formal child welfare system" 62% had no involvement with child welfare services
Livheim, Fredrik, Tengstrom, Anders, Andersson, Gerhard et al. (2020) A quasi-experimental, multicenter study of acceptance and commitment therapy for antisocial youth in residential care. Journal of Contextual Behavioral Science 16: 119-127	- Non-UK non-randomised study
Lotty, M.; Dunn-Galvin, A.; Bantry-White, E. (2020) Effectiveness of a trauma-informed care psychoeducational program for foster carers - Evaluation of the Fostering Connections Program. Child Abuse and Neglect 102: 104390	- non-UK non-randomised study
Love, Susan M, Koob, Jeffrey J, Hill, Larry E et al. (2008) The effects of using community mental health practitioners to treat foster children: Implications for child welfare planners. The Scientific Review of Mental Health Practice: Objective Investigations of Controversial and Unorthodox Claims in Clinical Psychology, Psychiatry, and Social Work 6(1): 31-39	Not true randomised controlled trial - non-uk
Maaskant, Anne M, van Rooij, Floor B, Overbeek, Geertjan J et al. (2017) Effects of PMTO in foster families with children with behavior problems: A randomized controlled trial. Journal of Child and Family Studies 26(2): 523-539	- no outcomes relevant to this research question

Study	Reason for exclusion
Mackie T.I., Cook S., Crystal S. et al. (2019) Antipsychotic Use Among Youth in Foster Care Enrolled in a Specialized Managed Care Organization Intervention. Journal of the American Academy of Child and Adolescent Psychiatry	- No outcome of interest reported [dispensation of antipsychotic medication]
MARVIN Luke A. and et al (2017) Implementing strong teens for adolescent girls in residential treatment: a quasi-experimental evaluation. Residential Treatment for Children and Youth 34(34): 183-202	- Unclear that population are LACYP [girls with emotional and behavioral problems referred to a residential treatment centre through courts, public schools, state family services, other mental health services, and families, for problems relating to personal and emotional functioning, family functioning, community and social relationships, and academic concerns.]
Mayer, S.S. (2019) Enhancing the Lives of Children in Out-Of-Home Care: An Exploration of Mind-Body Interventions as a Method of Trauma Recovery. Journal of Child and Adolescent Trauma 12(4): 549-560	- Case study
McBeath, Bowen and Meezan, William (2008) Market-based disparities in foster care service provision. Research on Social Work Practice 18(1): 27-41	- No outcome of interest reported [service provision outcomes]
McDonell, Michael G, Tarantino, Jessica, Dubose, Anthony P et al. (2010) A pilot evaluation of dialectical behavioural therapy in adolescent long-term inpatient care. Child and Adolescent Mental Health 15(4): 193-196	- Unclear that population are LACYP [long term psychiatric treatment in inpatient psychiatric facility]

Study	Reason for exclusion
McGuinness, Teena M, Mason, Marian, Tolbert, Grace et al. (2002) Becoming responsible teens: Promoting the health of adolescents in foster care. Journal of the American Psychiatric Nurses Association 8(3): 92-98	- non-UK [USA] - Observational [uncontrolled before and after study]
McMillen J.C., Narendorf S.C., Robinson D. et al. (2015) Development and piloting of a treatment foster care program for older youth with psychiatric problems. Child and Adolescent Psychiatry and Mental Health 9(1): 23	To be considered under another review question
McMillen, Curtis, Auslander, Wendy, Stiffman, Arlene et al. (2001) The Bridges to Life Options Program: Preliminary descriptive information. Preparing youth for long-term success: Proceedings from the Casey Family Program National Independent Living Forum.: 95-98	- book
McNeal, Rodney, Handwerk, Michael L, Field, Clinton E et al. (2006) Hope as an outcome variable among youths in a residential care setting. The American journal of orthopsychiatry 76(3): 304-11	- Unclear that population are LACYP [residential treatment facility for emotionally and behaviourally disordered children]
McWey, Lenore M and Mullis, Ann K (2004) Improving the lives of children in foster care: The impact of supervised visitation. Family Relations: An Interdisciplinary Journal of Applied Family Studies 53(3): 293-300	- no outcomes of interest to this review question

Study	Reason for exclusion
MEARS Susan L.; YAFFE Joanne; HARRIS, Norma J. (2009) Evaluation of wraparound services for severely emotionally disturbed youths. Research on Social Work Practice 19(6): 678-685	- Quasi-experimental [non-randomised controlled study] - non-UK [USA]
Mensah, T., Hjern, A., Hakanson, K. et al. (2020) Organisational models of health services for children and adolescents in out-of-home care: Health technology assessment. Acta Paediatrica, International Journal of Paediatrics 109(2): 250-257	- Systematic review
Mersky, Joshua P, Topitzes, James, Janczewski, Colleen E et al. (2015) Enhancing foster parent training with parent-child interaction therapy: Evidence from a randomized field experiment. Journal of the Society for Social Work and Research 6(4): 591-616	No outcomes of interest to this review question
Miklowitz, David J (2014) Delinquency, depression, and psychosis among adolescents in foster care: What holds three heads together?. Journal of the American Academy of Child & Adolescent Psychiatry 53(12): 1251-1253	- Not a relevant study design [Editorial]
MINNIS Helen and DEVINE Clare (2001) The effect of foster carer training on the emotional and behavioural functioning of looked after children. Adoption and Fostering 25(1): 44-54	- Data not reported in an extractable format [full quantitative results published elsewhere] - no methods described

Study	Reason for exclusion
MINNIS Helen and PRIORE Christina Del (2001) Mental health services for looked after children: implications from two studies. Adoption and Fostering 25(4): 27-38	- Not an investigation of an intervention
Mistral, Willm and Evans, Simon (2002) An innovative project for young people in care who have been sexually abused. British Journal of Social Work 32(3): 321-333	- Data not reported in an extractable format - No outcome of interest reported [outcomes are descriptive rather than comparing clear before and after type data]
Mitchell, Elissa Thomann (2011) The child resiliency program at Hope Meadows. Journal of Intergenerational Relationships 9(4): 452-457	- Intervention description/practice report
Mitra R. and Hodes M. (2019) Prevention of psychological distress and promotion of resilience amongst unaccompanied refugee minors in resettlement countries. Child: care, health and development 45(2): 198-215	Systematic review checked for relevant citations
Morehouse, E and Tobler, N S (2000) Preventing and reducing substance use among institutionalized adolescents. Adolescence 35(137): 1-28	- Unclear that population are LACYP [results from foster children mixed with juvenile and psychiatric treatment populations]
Mosuro, Sherifat, Malcolm, Devinia, Guishard-Pine, Jeune et al. (2014) Mental health awareness and coping in foster carers: The impact of a counselling skills intervention. Educational and Child Psychology 31(3): 64-70	- No outcome of interest reported [foster carer awareness of mental health and own coping]

Study	Reason for exclusion
Munthe-Kaas, Heather Menzies, Hammerstrom, Karianne Thune, Kurtze, Nanna et al. (2013) No title provided.	- Data not reported in an extractable format - Full text paper not available - Study not reported in English
Murphy, Kelly, Moore, Kristin Anderson, Redd, Zakia et al. (2017) Trauma-informed child welfare systems and children's well-being: A longitudinal evaluation of KVC's bridging the way home initiative. Children and Youth Services Review 75: 23-34	- non-UK [USA] - Observational [Interrupted time series]
Murray, Maureen E, Khoury, Dalia Y, Farmer, Elizabeth M Z et al. (2018) Is more better? Examining whether enhanced consultation/coaching improves implementation. The American journal of orthopsychiatry 88(3): 376-385	No outcomes of interest to this review question
NABORS Laura; PROESCHER Eric; DeSILVA Mochiko (2001) School-based mental health prevention activities for homeless and at-risk youth. Child and Youth Care Forum 30(1): 3-18	- Unclear that population are LACYP [homeless families]
Nash, Jordanna and Flynn, Robert J (2009) Foster-parent training and foster-child outcomes: An exploratory cross-sectional analysis. Vulnerable Children and Youth Studies 4(2): 128-134	- Not a relevant study design [cross-sectional study]
NCT00239837 (2005) Prevention Program for Problem Behaviors in Girls in Foster Care. Https://clinicaltrials.gov/show/nct00239837	Trial abstract

Study	Reason for exclusion
NCT00339365 (2006) Promoting Infant Mental Health in Foster Care. Https://clinicaltrials.gov/show/nct00339365	Trial abstract
NCT00701194 (2008) Early Intervention Foster Care: a Prevention Trial. Https://clinicaltrials.gov/show/nct00701194	Trial abstract
NCT00810056 (2008) Fostering Healthy Futures Efficacy Trial for Preadolescent Youth in Foster Care. Https://clinicaltrials.gov/show/nct00810056	Trial abstract
NCT01261806 (2010) Mental Health Services for Toddlers in Foster Care. Https://clinicaltrials.gov/show/nct01261806	Trial abstract
NCT01547052 (2012) Adapting Dialectical Behavior Therapy for Children in Residential Care. Https://clinicaltrials.gov/show/nct01547052	Trial abstract
NCT01565304 (2012) Evaluation of the Effectiveness of the POWER Through Choices Program. Https://clinicaltrials.gov/show/nct01565304	Trial abstract
NCT01726361 (2012) Multidimensional Treatment Foster Care for Adolescents. Https://clinicaltrials.gov/show/nct01726361	Trial abstract
NCT01751620 (2012) Project ACCEPT: engaging Newly Diagnosed HIV+ Youth in Care. Https://clinicaltrials.gov/show/nct01751620	Trial abstract

Study	Reason for exclusion
NCT02037750 (2014) Foster Teens' Risk During Transition. Https://clinicaltrials.gov/show/nct02037750	Trial abstract
NCT02217072 (2014) Educational Support Interventions for Children in Care. Https://clinicaltrials.gov/show/nct02217072	Trial abstract
NCT02765048 (2016) Violence Prevention for Adolescent Girls With Prior Maltreatment. Https://clinicaltrials.gov/show/nct02765048	Trial abstract
NCT03331016 (2017) Heart to Heart: testing a Sexual Health Training for Foster and Kinship Caregivers. Https://clinicaltrials.gov/show/nct03331016	Trial abstract
NCT03799302 (2019) Facilitating Sustainment Through Implementation Feedback: the SIC Coaching Model. Https://clinicaltrials.gov/show/nct03799302	Trial abstract
NCT03874585 (2019) Text Messaging-Based Smoking Cessation Program for Homeless Youth. Https://clinicaltrials.gov/show/nct03874585	Trial abstract
NCT03887312 (2019) Phone-Delivered Psychological Intervention (t-CETA) for Mental Health Problems in 8-16 Year-Old Syrian Refugee Children. Https://clinicaltrials.gov/show/nct03887312	Trial abstract

Study	Reason for exclusion
NCT03910218 (2019) Come As You Are - Assessing the Efficacy of a Nurse Case Management HIV Prevention and Care Intervention Among Homeless Youth. Https://clinicaltrials.gov/show/nct03910218	Trial abstract
Neamtu, Gina M and David, Oana A (2016) Coaching emotional abilities in fostered adolescents through Rational Emotive and Cognitive-Behavioral Education: Efficacy and mechanisms of change of using therapeutic stories. Journal of Evidence-Based Psychotherapies 16(1): 33-56	- Non-OECD country
Nilsen, Wendy (2007) Fostering futures: a preventive intervention program for school-age children in foster care. Clinical child psychology and psychiatry 12(1): 45-63	No outcomes of interest to this review question
Novo, A., Richard, P., Pavelka, M. et al. (2019) Adult outcome of children after long-term placement in 4 Therapeutic Foster Care Units: Quantitative analysis/Qualitative analysis of subjects' discourse. Neuropsychiatrie de l'Enfance et de l'Adolescence 67(7): 319-327	Non-English language article
NTR3899 (2013) Positive parenting in foster care. Http://www.who.int/trialsearch/trial2.aspx? Trialid=ntr3899	Trial abstract
NTR5460 (2015) The online intervention The Growth Factory: developing a ‘growth mindset’!. Http://www.who.int/trialsearch/trial2.aspx? Trialid=ntr5460	Trial abstract
NTR6859 (2017) Traumatized Youths in Residential Care: exploring the Dysregulation of Biological Stress Systems and Testing a Gameful Relaxation	Trial abstract

Study	Reason for exclusion
Intervention to Normalize These Stress Systems. Http://www.who.int/trialsearch/trial2.aspx? Trialid=ntr6859	
Ogbonnaya, Ijeoma Nwabuzor and Keeney, Annie J (2018) A systematic review of the effectiveness of interagency and cross-system collaborations in the United States to improve child welfare outcomes. Children and Youth Services Review 94: 225-245	Systematic review checked for relevant citations
Oman, R.F., Vesely, S.K., Green, J. et al. (2018) Adolescent Pregnancy Prevention Among Youths Living in Group Care Homes: A Cluster Randomized Controlled Trial. American journal of public health 108(s1): 38-s44	- Unclear that population are LACYP mixed child welfare and juvenile justice (majority) population
Olsson, Tina M (2011) Comparing top-down and bottom-up costing approaches for economic evaluation within social welfare. The European journal of health economics : HEPAC : health economics in prevention and care 12(5): 445-53	No outcomes of interest
Osofsky, Joy D; Stepka, Phillip T; King, Lucy S (2017) Attachment and biobehavioral catch-up intervention. Treating infants and young children impacted by trauma: Interventions that promote healthy development.: 61-74	- book
Ownbey, Mark A, Jones, Robert J, Judkins, Bonnie L et al. (2001) Tracking the sexual behavior-specific effects of a foster family treatment program for children with serious sexual behavior problems. Child & Adolescent Social Work Journal 18(6): 417-436	- Case study [Case series]

Study	Reason for exclusion
Ozturk S. and Ekinci M. (2018) The effect of structured education on self-esteem and the suicide probability of male adolescents living in orphanages. Archives of psychiatric nursing 32(4): 604-609	- non-UK [Turkey] - Observational [uncontrolled before and after study]
PALSSON, David (2020) Securing the floor but not raising the ceiling? Operationalising care quality in the inspection of residential care for children in Sweden. European Journal of Social Work 23(1): 118-130	- Not an investigation of an intervention - Non-UK setting - Intervention description/practice report
Pace, T, Negi, L, Donaldson-Lavelle, B et al. (2012) Cognitively-Based Compassion Training reduces peripheral inflammation in adolescents in foster care with high rates of early life adversity. BMC complementary and alternative medicine 12	- Conference abstract
Pace, T, Negi, LT, Dodson-Lavelle, B et al. (2012) Engagement with cognitively-based compassion training is associated with reduced salivary C-reactive protein and cortisol from before to after training in foster care program adolescents. Brain, behavior, and immunity 26: 43	- Conference abstract
Pace, Thaddeus W W, Negi, Lobsang Tenzin, Dodson-Lavelle, Brooke et al. (2013) Engagement with Cognitively-Based Compassion Training is associated with reduced salivary C-reactive protein from before to after training in foster care program adolescents. Psychoneuroendocrinology 38(2): 294-9	- No outcome of interest reported [e.g. salivary C-reactive protein] - Data not reported in an extractable format

Study	Reason for exclusion
	[F-statistics and P-values presented but no usable data]
PALLETT Clare and et al (2002) Fostering changes: a cognitive-behavioural approach to help foster carers manage children. Adoption and Fostering 26(1): 39-48	- UK - Observational [uncontrolled before and after study] ooo
Pandya, Samta P (2018) Spirituality for wellbeing of bereaved children in residential care: Insights for spiritually sensitive child-centred social work across country contexts. Child & Adolescent Social Work Journal 35(2): 181-195	- Non-OECD country [Some from US and Canada but majority from non-OECD and results not stratified]
Pane, Heather T, White, Rachel S, Nadorff, Michael R et al. (2013) Multisystemic therapy for child non-externalizing psychological and health problems: a preliminary review. Clinical child and family psychology review 16(1): 81-99	Systematic review extracted for relevant citations
PATEL, Mitesh and et, al (2020) Identifying Fetal Alcohol Spectrum Disorder and psychiatric comorbidity for children and youth in care: a community approach to diagnosis and treatment. Children and Youth Services Review 108: 104606	- Not an investigation of an intervention Screening tool
Paulsell, Diane, Mekos, Debra, Del Grosso, Patricia et al. (2006) Reaching Out to Kith and Kin Caregivers in Early Head Start. Trends in Family Programs and Policy. Issue Brief #2. Mathematica Policy Research, Inc.: 1-4	- Unclear that population are LACYP [low income families]

Study	Reason for exclusion
Peebles, Stacy Nakia (2000) Does birth control education increase knowledge among parenting/pregnant teenagers in residential treatment?. Residential Treatment for Children & Youth 17(4): 17-28	- No outcome of interest reported [Knowledge scores]
Perry, Brea, Walsh, Kelda Harris, Plawecki, Martin H et al. (2019) Change in Psychotropic Prescribing Patterns Among Youths in Foster Care Associated With a Peer-to-Peer Physician Consultation Program. Journal of the American Academy of Child and Adolescent Psychiatry 58(12): 1218-1222e1	- RCT, however, not an intervention or topic of interest – reducing polypharmacy in Medicaid covered USA-based looked after children receiving psychotropic medication (intervention was peer to peer physician consultation).
Pfeiffer E., Sachser C., Tutus D. et al. (2019) Trauma-focused group intervention for unaccompanied young refugees: "mein Weg" - Predictors of treatment outcomes and sustainability of treatment effects. Child and Adolescent Psychiatry and Mental Health 13(1): 18	- non-UK [Germany] - Observational [uncontrolled before and after study]
Pfeiffer, Elisa and Goldbeck, Lutz (2017) Evaluation of a Trauma-Focused Group Intervention for Unaccompanied Young Refugees: A Pilot Study. Journal of traumatic stress 30(5): 531-536	- non-UK [Germany] - subgroup of interest [unaccompanied asylum seekers] - Observational [uncontrolled before and after study]

Study	Reason for exclusion
Pinto, Ricardo J and Maia, Angela C (2013) Psychopathology, physical complaints and health risk behaviors among youths who were victims of childhood maltreatment: A comparison between home and institutional interventions. Children and Youth Services Review 35(4): 603-610	- Not an intervention of interest [home vs institutional CPS intervention]
Polis, RL, Creel, LM, Loveless, MB et al. (2017) Integration of yoga therapy into traditional residential treatment for at risk adolescent females: a community-based approach. Journal of pediatric and adolescent gynecology 30(2): 320-321	- Conference abstract
POLLOCK Sue and FARMER Elaine (2001) Substitute care for sexually abused and abusing children. Adoption and Fostering 25(2): 56-59	- Not an investigation of an intervention
Preyde, M., Frensch, K., Cameron, G. et al. (2011) Long-Term Outcomes of Children and Youth Accessing Residential or Intensive Home-Based Treatment: Three Year Follow up. Journal of Child and Family Studies 20(5): 660-668	- Unclear that population are LACYP [No subgroup analysis for LACYP]
Preyde, Michele, Adams, Gerald, Cameron, Gary et al. (2009) Outcomes of Children Participating in Mental Health Residential and Intensive Family Services: Preliminary Findings. Residential Treatment for Children & Youth 26(1): 1-20	- Unclear that population are LACYP [No subgroup analysis for children in care]
Purewal Boparai S.K., Au V., Koita K. et al. (2018) Ameliorating the biological impacts of childhood adversity: A review of intervention programs. Child Abuse and Neglect 81: 82-105	Systematic review checked for relevant citations

Study	Reason for exclusion
Purohit, Satya Prakash, Pradhan, Balaram, Nagendra, Hongasandra Ramarao et al. (2016) Effect of yoga on EUROFIT physical fitness parameters on adolescents dwelling in an orphan home: A randomized control study. Vulnerable Children and Youth Studies 11(1): 33-46	- Non-OECD country
Redd, Zakia, Malm, Karin, Moore, Kristin et al. (2017) KVC's Bridging the Way Home: An innovative approach to the application of Trauma Systems Therapy in child welfare. Children and Youth Services Review 76: 170-180	- No outcome of interest reported [implementation outcomes]
Reijneveld, Sijmen A, de Boer, Josien B, Bean, Tammy et al. (2005) Unaccompanied adolescents seeking asylum: poorer mental health under a restrictive reception. The Journal of nervous and mental disease 193(11): 759-61	- non-UK [Netherlands] - Quasi-experimental [non-randomised controlled trial] ooo
Rhoades, Kimberly A, Chamberlain, Patricia, Roberts, Rosemarie et al. (2013) MTFC for high-risk adolescent girls: A comparison of outcomes in England and the United States. Journal of Child & Adolescent Substance Abuse 22(5): 435-449	- non-UK - Observational [Two uncontrolled before and after studies]
Rhoades, Kimberly A, Leve, Leslie D, Harold, Gordon T et al. (2014) Drug use trajectories after a randomized controlled trial of MTFC: Associations with partner drug use. Journal of Research on Adolescence 24(1): 40-54	- Data not reported in an extractable format [correlation and cohen's statistics presented only]

Study	Reason for exclusion
Riemann, Bradley C, Kuckertz, Jennie M, Rozenman, Michelle et al. (2013) Augmentation of youth cognitive behavioral and pharmacological interventions with attention modification: a preliminary investigation. Depression and anxiety 30(9): 822-8	- Unclear that population are LACYP [residential treatment facility for youth with severe anxiety disorders. "All parents and participants voluntarily consented to treatment."]
RIVARD Jeanne C. and et al (2004) Implementing a trauma recovery framework for youths in residential treatment. Child and Adolescent Social Work Journal 21(5): 529-550	To be considered under another review question
ROBERTS Louise and et al (2016) Improving well-being and outcomes for looked after children in Wales: a context sensitive review of interventions. Adoption and Fostering 40(4): 309-324	Systematic review checked for relevant citations
Robst, John, Armstrong, Mary, Dollard, Norin et al. (2013) Arrests among youth after out-of-home mental health treatment: comparisons across community and residential treatment settings. Criminal behaviour and mental health : CBMH 23(3): 162-76	- Not an intervention of interest [out of home mental health treatment vs community based group homes vs foster families, vs inpatient group facilities] - Non-UK setting - Not a relevant study design [non-randomised (with propensity score matching)] - Unclear that population are LACYP [therapeutic group = residential treatment for mental health problem]

Study	Reason for exclusion
Rogers, Anita and Henkin, Nancy (2000) School-based interventions for children in kinship care. Grandparents raising grandchildren: Theoretical, empirical, and clinical perspectives.: 221-238	- Data not reported in an extractable format [No evaluation data provided]
Roth N.; Lev-Wiesel R.; Shochat T. (2019) "How do you sleep?" sleep in self-figure drawings of young adolescents in residential care facilities-An exploratory study. Sleep Medicine	- Not an intervention of interest [residential care vs home care]
Rushton A. and Miles G. (2000) A study of a support service for the current carers of sexually abused girls. Clinical Child Psychology and Psychiatry 5(3): 411-426	- UK - Observational [uncontrolled before and after study] ooo
Rutter, Michael (2008) Institutional effects on children: Design issues and substantive findings. Monographs of the Society for Research in Child Development 73(3): 271-278	- Not a relevant study design - no methods described
Ryan, Joseph P, Choi, Sam, Hong, Jun Sung et al. (2008) Recovery coaches and substance exposed births: an experiment in child welfare. Child abuse & neglect 32(11): 1072-9	- No outcome of interest reported - Does not contain a population of people
Salazar, Amy M; Keller, Thomas E; Courtney, Mark E (2011) Understanding social support's role in the relationship between maltreatment and depression in youth with foster care experience. Child maltreatment 16(2): 102-13	- Not an intervention of interest [Study considered the impact of social support (defined using two social support scales)]

Study	Reason for exclusion
Said, Glorianne and King, Dorothy (2020) Implementing Narrative Exposure Therapy for unaccompanied asylum-seeking minors with post-traumatic stress disorder: A pilot feasibility report. Clinical Child Psychology and Psychiatry 25(1): 213-226	Case series.
Santoro, Melissa, Grant, Robert, Harrison, Cheryl et al. (2011) Educating nonoffending parents. Handbook of sex offender treatment.: 1-13	- book
Sarkadi, A., Warner, G., Salari, R. et al. (2020) Evaluation of the Teaching Recovery Techniques community-based intervention for unaccompanied refugee youth experiencing post-traumatic stress symptoms (Swedish UnaccomPanied yOuth Refugee Trial; SUPpORT): Study protocol for a randomised controlled trial. Trials 21(1): 63	- RCT protocol
Schaefer, Jonathan D (2018) Use of hierarchical measures of psychopathology to capture the long (and wide) shadow of early deprivation in the Bucharest Early Intervention Project analysis. JAMA Psychiatry 75(11): 1101-1102	- Non-OECD country
SCHAPIRO Naomi A. and et al (2018) Addressing the health and mental health needs of unaccompanied immigrant youth through an innovative school-based health center model: successes and challenges. Children and Youth Services Review 92: 133-142	- No outcome of interest reported [descriptive outcomes following an intervention (non-comparative)]
Schlosser, Ralf W, Walker, Elizabeth, Sigafoos, Jeff et al. (2006) Increasing Opportunities for Requesting in Children with Developmental Disabilities	- No outcome of interest reported

Study	Reason for exclusion
Residing in Group Homes through Pyramidal Training. Education and Training in Developmental Disabilities 41(3): 244-252	- Data not reported in an extractable format
Schoemaker, Nikita K, Wentholt, Wilma G M, Goemans, Anouk et al. (2019) A meta-analytic review of parenting interventions in foster care and adoption. Development and psychopathology: 1-24	- systematic review checked for citations
Schulenberg, Stefan E (2003) Use of Logotherapy's Mountain Range Exercise with Male Adolescents with Mental Retardation/Developmental Disabilities and Sexual Behavior Problems. Journal of Contemporary Psychotherapy: On the Cutting Edge of Modern Developments in Psychotherapy 33(3): 219-234	- Review article but not a systematic review - Intervention description/practice report
Seltzer, R.R., Raisanen, J.C., da Silva, T. et al. (2020) Medical Decision-Making in Foster Care: Considerations for the Care of Children With Medical Complexity. Academic Pediatrics 20(3): 333-340	- non-UK qualitative study
Sharieff, G Q; Hostetter, S; Silva, P D (2001) Foster parents of medically fragile children can improve their BLS scores: results of a demonstration project. Pediatric emergency care 17(2): 93-5	- No outcome of interest reported
Shechory, Mally (2005) Effects of the holding technique for restraint of aggression in children in residential care. International journal of adolescent medicine and health 17(4): 355-65	- Not an intervention of interest [restraint and holding techniques in residential care]

Study	Reason for exclusion
Shein-Szydlo, Janet, Sukhodolsky, Denis G, Kon, David Szydlo et al. (2016) A Randomized Controlled Study of Cognitive-Behavioral Therapy for Posttraumatic Stress in Street Children in Mexico City. Journal of traumatic stress 29(5): 406-414	- Unclear that population are LACYP [Homeless/street children in mexico. Unclear if children in the care system]
Sierau S., Schneider E., Nesterko Y. et al. (2018) Alone, but protected? Effects of social support on mental health of unaccompanied refugee minors. European Child and Adolescent Psychiatry	- Not an investigation of an intervention
SINDI, Ingrid and STROMPL, Judit (2019) Who am I and where am I from? Substitute residential home children's insights into their lives and individual identities. Child and Youth Services 40(2): 120-139	- non-UK qualitative study
Skar, Ane-Marthe Solheim; De Abreu, Rodrigo Marrecas; Vaughn, Marsha J (2019) Strengthening a whole child approach within residential care settings through psychosocial support and nutritional guidance. Child Care in Practice 25(3): 230-247	- Non-UK non-randomised study
Slonim-Nevo, Vered (2001) The effect of HIV/AIDS prevention intervention for Israeli adolescents in residential centers: Results at 12-month follow-up. Social Work Research 25(2): 71-88	- non-UK [Israel] - Quasi-experimental [non-randomised controlled study]

Study	Reason for exclusion
Slopen N., Tang A., Nelson C.A. et al. (2019) The consequences of foster care versus institutional care in early childhood on adolescent cardiometabolic and immune markers: Results from a randomized controlled trial. Psychosomatic medicine	- Non-OECD country
Smith, Tamara; Clark, Judith F; Nigg, Claudio R (2015) Insights in public health: Building support for an evidence-based teen pregnancy and sexually transmitted infection prevention program adapted for foster youth. Hawai'i journal of medicine & public health : a journal of Asia Pacific Medicine & Public Health 74(1): 27-32	- Intervention description/practice report
Southerland, Dannia G, Mustillo, Sarah A, Farmer, Elizabeth M. Z et al. (2009) What's the relationship got to do with it? Understanding the therapeutic relationship in therapeutic foster care. Child & Adolescent Social Work Journal 26(1): 49-63	- No outcome of interest reported [factors associated with successful treatment]
Spears, Brad, Sanchez, David, Bishop, Jane et al. (2006) Level 2 Therapeutic Model site. American Indian and Alaska native mental health research (Online) 13(2): 52-78	- Unclear that population are LACYP
Spehr, Michelle K, Zeno, Rosie, Warren, Barbara et al. (2019) Social-Emotional Screening Protocol Implementation: A Trauma-Informed Response for Young Children in Child Welfare. Journal of pediatric health care : official publication of National Association of Pediatric Nurse Associates & Practitioners 33(6): 675-683	- non-UK based before and after study

Study	Reason for exclusion
Spence O., Camelo Castillo W., Reeves G. et al. (2019) Psychiatric Services Preceding Initiation of Antipsychotic Medication among Youth in Foster Care. Journal of Child and Adolescent Psychopharmacology 29(4): 276-284	- Not an investigation of an intervention
Sprague, Jeffrey, Jolivette, Kristine, Boden, Lauren J. et al. (2020) Implementing Facility-Wide Positive Behavior Interventions and Supports in Secure Juvenile Correction Settings: Results of an Evaluation Study. Remedial and Special Education 41(2): 70-79	- Unclear that population are LACYP USA juvenile justice setting - Non-UK setting - Non-randomised study
Stacks, Ann M, Beeghly, Marjorie, Partridge, Ty et al. (2011) Effects of placement type on the language developmental trajectories of maltreated children from infancy to early childhood. Child maltreatment 16(4): 287-99	- Not an intervention of interest
Stanley, Nicky; Riordan, Denise; Alaszewski, Helen (2005) The mental health of looked after children: matching response to need. Health & social care in the community 13(3): 239-48	- No outcome of interest reported [descriptive report of level of CAMHS support by level of mental health need among LACYP]
Steckley, Laura (2019) Catharsis, containment and physical restraint in residential child care. British Journal of Social Work 48(6): 19	- Not an intervention of interest [qualitative study about restraint in residential child care]
Steele, Russell W; Ramgoolam, Andres; Evans, James Jr (2003) Health services for homeless adolescents. Seminars in pediatric infectious diseases 14(1): 38-42	- Unclear that population are LACYP [homelessness]

Study	Reason for exclusion
Stein, Ruth E K, Hurlburt, Michael S, Heneghan, Amy M et al. (2014) Health status and type of out-of-home placement: informal kinship care in an investigated sample. Academic pediatrics 14(6): 559-64	- Not an intervention of interest [comparing informal kinship care vs formal foster care]
Strozier, Anne, McGrew, LaSandra, Krisman, Kerry et al. (2005) Kinship care connection: A school-based intervention for kinship caregivers and the children in their care. Children and Youth Services Review 27(9): 1011-1029	- non-UK [USA] - Observational [uncontrolled before and after study]
Sunseri, Paul A (2004) Preliminary Outcomes on the Use of Dialectical Behavior Therapy to Reduce Hospitalization Among Adolescents in Residential Care. Residential Treatment for Children & Youth 21(4): 59-76	- Unclear that population are LACYP [residential treatment facility for girls who are multidisordered and severly dysfunctional]
SULLIVAN Alexandra, D. and et, al (2019) Feasibility investigation: leveraging smartphone technology in a trauma and behavior management-informed training for foster caregivers. Children and Youth Services Review 101: 363-371	Non-UK, non-randomised study
Swanke, Jayme R, Yampolskaya, Svetlana, Strozier, Anne et al. (2016) Mental health service utilization and time to care: A comparison of children in traditional foster care and children in kinship care. Children and Youth Services Review 68: 154-158	- Not an intervention of interest [kinship care vs non-kinship care]

Study	Reason for exclusion
Taneja V., Aggarwal R., Beri R.S. et al. (2005) Not by bread alone project: A 2-year follow-up report. Child: Care, Health and Development 31(6): 703-706	- Non-OECD country
Taussig, Heather N, Culhane, Sara E, Garrido, Edward et al. (2013) Does severity of physical neglect moderate the impact of an efficacious preventive intervention for maltreated children in foster care?. Child maltreatment 18(1): 56-64	- Data not reported in an extractable format [Analysis to find a moderating effect of a subgroup not listed in the protocol on intervention effects. No raw data presented.]
Taussig, Heather N; Culhane, Sara E; Hettleman, Daniel (2007) Fostering healthy futures: an innovative preventive intervention for preadolescent youth in out-of-home care. Child welfare 86(5): 113-31	- Not a relevant study design [RCT protocol]
Taussig, Heather N, Culhane, Sara E, Raviv, Tali et al. (2010) Mentoring Children in Foster Care: Impact on Graduate Student Mentors. Educational horizons 89(1): 17-32	- No outcome of interest reported [Not foster children related outcomes]
Taussig, Heather, Weiler, Lindsey, Rhodes, Tara et al. (2015) Fostering healthy futures for teens: Adaptation of an evidence-based program. Journal of the Society for Social Work and Research 6(4): 617-642	- No outcome of interest reported [Acceptability outcomes] - Survey extracted views (not true qualitative)
THOMSON Susan and et al (2011) Residential treatment for sexually exploited adolescent girls: Acknowledge, Commit, Transform (ACT). Children and Youth Services Review 33(11): 2290-2296	- Unclear that population are LACYP [sexually exploited adolescents referred to residential treatment centre]

Study	Reason for exclusion
Thomson, Susan, Hirshberg, David, Qiao, Joanne et al. (2011) Outcomes for adolescent girls after long-term residential treatment. Residential Treatment for Children & Youth 28(3): 251-267	- Unclear that population are LACYP [few participants were in permanent state custody]
TRIPODI Stephen J. (2009) A comprehensive review: methodological rigor of studies on residential treatment centers for substance abusing adolescents. Journal of Evidence-Based Social Work 6(3): 288-299	Systematic review checked for relevant citations
Tse, P W, Leung, S S, Chan, T et al. (2000) Dietary fibre intake and constipation in children with severe developmental disabilities. Journal of paediatrics and child health 36(3): 236-9	- Unclear that population are LACYP [children with severe developmental disabilities living in a residential institution]
Tyler, Patrick M, Thompson, Ronald W, Trout, Alexandra L et al. (2017) Important elements of aftercare services for youth departing group homes. Journal of Child and Family Studies 26(6): 1603-1613	- Survey extracted views (not true qualitative)
Tyler, P.M., Aitken, A.A., Ringle, J.L. et al. (2020) Evaluating social skills training for youth with trauma symptoms in residential programs. Psychological trauma : theory, research, practice and policy	- Unclear that population are LACYP residential mental health services - Non-UK setting

Study	Reason for exclusion
VALLEJOS Elvira Perez and et al (2016) Kundalini yoga as mutual recovery: a feasibility study including children in care and their carers. Journal of Children's Services 11(4): 261-282	- UK - Observational [uncontrolled before and after study] ooo
Van Andel, Hans W. H, Grietens, Hans, Strijker, Johan et al. (2014) Searching for effective interventions for foster children under stress: A meta-analysis. Child & Family Social Work 19(2): 149-155	Systematic review checked for relevant citations
Van Dam L., Smit D., Wildschut B. et al. (2018) Does Natural Mentoring Matter? A Multilevel Meta-analysis on the Association Between Natural Mentoring and Youth Outcomes. American journal of community psychology 62(12): 203-220	- Not an intervention of interest
Van Vugt, Eveline, lanctot, Nadine, Lemieux, Annie et al. (2016) Can institutionalized adolescent females with a substantiated history of sexual abuse benefit from cognitive behavioral treatment targeting disruptive and delinquent behaviors?. Criminal Justice and Behavior 43(7): 937-950	- non-UK - Quasi-experimental [Non-randomised controlled study]
Vis, Svein Arild, Strandbu, Astrid, Holtan, Amy et al. (2011) Participation and health-A research review of child participation in planning and decision-making. Child & Family Social Work 16(3): 325-335	Systematic review checked for relevant citations

Study	Reason for exclusion
Vorhies, Vanessa, Glover, Crystal M, Davis, Kristin et al. (2009) Improving outcomes for pregnant and parenting foster care youth with severe mental illness: an evaluation of a transitional living program. Psychiatric rehabilitation journal 33(2): 115-124	- Observational [uncontrolled before and after study] - non-UK [USA]
Wade, Mark, Fox, Nathan A, Zeanah, Charles H et al. (2019) "Effect of foster care intervention on trajectories of general and specific psychopathology among children with histories of institutional rearing: A randomized clinical trial": Correction. JAMA Psychiatry 76(1): 1025	- Non-OECD country
Waid, Jeffrey and Wojciak, Armeda Stevenson (2019) Evaluating the impact of camp-based reunification on the resilience of siblings separated by foster care. Children and Youth Services Review 100: 274-282	- Observational [uncontrolled before and after study] - non-UK [USA]
WALKER Moria (2003) Foster care: an alternative to secure accommodation?. Childright 194: 17-19	- Intervention description/practice report
Walch, T.J., Rosenkranz, R.R., Schenkelberg, M.A. et al. (2020) Parent adoption and implementation of obesity prevention practices through building children's asking skills at family child care homes. Evaluation and program planning 80: 101810	- Unclear that population are LACYP regular day care centres

Study	Reason for exclusion
Wasser, Thomas, Tyler, Rachael, McIlhaney, Krista et al. (2008) Effectiveness of Dialectical Behavior Therapy (DBT) versus Standard Therapeutic Milieu (STM) in a cohort of adolescents receiving residential treatment. Best Practices in Mental Health: An International Journal 4(2): 114-125	- Unclear that population are LACYP [residential mental health treatment]
Weiner, Dana A, Schneider, Alison, Lyons, John S et al. (2009) Evidence-based treatments for trauma among culturally diverse foster care youth: Treatment retention and outcomes. Children and Youth Services Review 31(11): 1199-1205	- non-UK [USA] - Observational [uncontrolled before and after studies]
Weisz, Vicky, Wingrove, Twila, Beal, Sarah J et al. (2011) Children's participation in foster care hearings. Child abuse & neglect 35(4): 267-72	- No outcome of interest reported
Whitemore, Erin, Ford, Monica, Sack, William H et al. (2003) Effectiveness of Day Treatment with Proctor Care for Young Children: A Four-Year Follow-Up. Journal of Community Psychology 31(5): 459-468	- Quasi-experimental - USA
Williams, Nathaniel J and Sherr, Michael E (2009) Children's psychosocial rehabilitation: Clinical outcomes for youth with serious emotional disturbance living in foster care. Child & Adolescent Social Work Journal 26(3): 225-234	- non-UK [USA] - Observational [uncontrolled before and after study]

Study	Reason for exclusion
WILSON, Brendan and BARNETT Lisa, M. (2020) Physical activity interventions to improve the health of children and adolescents in out of home care - a systematic review of the literature. Children and Youth Services Review 110: 104765	Systematic review
Williams, Sarah C, Fanolis, Verba, Schamess, Gerald et al. (2001) Adapting the Pynoos school based group therapy model for use with foster children: Theoretical and process considerations. Journal of Child & Adolescent Group Therapy 11(23): 57-76	No outcomes of interest to this review question
Wilmshurst, LA (2002) Treatment programs for youth with emotional and behavioral disorders: an outcome study of two alternate approaches. Mental health services research 4(2): 85-96	- Unclear that population are LACYP
Winters, Andrew M, Collins-Camargo, Crystal, Antle, Becky F et al. (2020) Implementation of system-wide change in child welfare and behavioral health: The role of capacity, collaboration, and readiness for change. Children and Youth Services Review 108	- No outcome of interest reported implementation outcomes - Non-UK setting
WISE Sarah (2002) An evaluation of a trial of looking after children in the state of Victoria, Australia. Children and Society 17(1): 3-17	- Study does not contain a relevant intervention [Excluded from review questions 2.1, 3.1, 4.1, 4.2, and with qualitative outcomes. Describes a system of case planning and review which is already statutory care in the UK. This was a Non-UK based uncontrolled before and after study.]

Study	Reason for exclusion
Woodward, Gillian (2014) Development of the 'Easy Step-by-Step Cookbook' for use in group homes in rural New South Wales: involving student dietitians in a practical community project. The Australian journal of rural health 22(3): 139-40	- Unclear that population are LACYP
WORCEL Sonia D. and et al (2008) Effects of family treatment drug courts on substance abuse and child welfare outcomes. Child Abuse Review 17(6): 427-443	- Quasi-experimental [non-randomised controlled trial] - non-UK [USA]
XU Yanfeng and BRIGHT Charlotte Lyn (2018) Children's mental health and its predictors in kinship and non-kinship foster care: a systematic review. Children and Youth Services Review 89: 243-262	- Not an intervention of interest [kinship vs non-kinship care]
Yafi S.-A.; Melkman E.; Hellman C.M. (2019) Nurturing the hope of youth in care: The contribution of mentoring. American Journal of Orthopsychiatry 89(2): 134-143	- Observational [correlation study] - non-UK [Israel]
Yokley, James M (2011) The use of therapeutic community learning experiences with youth referred for sexually abusive behavior. Handbook of sex offender treatment.: 1-20	- book

Study	Reason for exclusion
Yoong, S, Grady, A, Wiggers, J et al. (2017) A randomized controlled trial of an online menu planning intervention to improve childcare service adherence to dietary guidelines. Asia-pacific journal of clinical oncology 13: 32-33	- Unclear that population are LACYP [Children in day care centres]
Young, Tiffany L, Janke, Megan C, Sharpe, Chantel et al. (2019) Evaluating the feasibility of a community intergenerational physical activity intervention for kinship families: Professional stakeholders' perspectives. Evaluation and Program Planning 72: 136-144	- non-UK qualitative study
ZarezadehKheibari, Shiva; Rafienia, Parvin; Asgharinekah, S Mohsen (2014) The effectiveness of expressive art group therapy on interactive self-efficacy of foster children. J iran psychol 10(40): 371-382	- Non-OECD country
Zeanah C.H.; Finelli J.; Gleason M.M. (2019) Effective mental health treatment for children in foster care. The Lancet Child and Adolescent Health 3(3): 136-137	- Review article but not a systematic review
Zeanah, C H, Larrieu, J A, Heller, S S et al. (2001) Evaluation of a preventive intervention for maltreated infants and toddlers in foster care. Journal of the American Academy of Child and Adolescent Psychiatry 40(2): 214-21	- Quasi-experimental - non-UK [USA]

Cost-effectiveness studies

Study	Reason for exclusion
Bennett, C.E.; Wood, J.N.; Scribano, P.V. (2020) Health Care Utilization for Children in Foster Care. Academic Pediatrics 20(3): 341-347	- Exclude - compared LAC with non-LAC - Exclude - non-relevant outcomes
Bywater, T.; Hutchings, J.; Linck, P. (2011) Incredible Years parent training support for foster carers in Wales: A multi-centre feasibility study. Child Care Health and Development 37(2): 233-43	- Exclude - Cost analysis not conducted due to skewness of the data. - Only combined (intervention and controls) costs were reported.
DIXON, Jo (2011) How the care system could be improved. Community Care 17211: 16-17	- Exclude - not an economic evaluation
Dretzke J.; Frew E.; Davenport C.; Barlow J.; (2005) The effectiveness and cost-effectiveness of parent training/education programmes for the treatment of conduct disorder, including oppositional defiant disorder, in children. Health Technol Assess 9(50):iii, ix-x, 1-233.	- Exclude - Not specific to looked after children and young people
van Eeren, H.; Schawo, S.J.; Scholte, R.H.J.; van Busschbach, J.J.; Hakkaart-van Roijen, L. (2015) Value of information analysis applied to the economic evaluation of interventions aimed at reducing juvenile delinquency. PLOS ONE 10(7): 1-15	- Exclude - Not specific to looked after children and young people - Exclude - methodological paper
Huefner, Jonathan C, Ringle, Jay L, Thompson, Ronald W et al. (2018) Economic evaluation of residential length of stay and long-term outcomes. Residential Treatment for Children & Youth 35(3): 192-208	- Exclude - costs not applicable to the UK perspective

Study	Reason for exclusion
Jones, B. (2008) The price of permanency: cost-benefit analysis of psychosocial intervention for children and families. Therapeutic Communities 29(2): 142-159	- Exclude - Costing analysis of resource utilisation - Exclude - Not a formal economic evaluation
LOFHOLM Cecilia, Andree; OLSSON Tina, M.; SUNDELL, Knut (2020) Effectiveness and costs of a therapeutic residential care program for adolescents with a serious behavior problem (MultifunC). Short-term results of a non-randomized controlled trial. Residential Treatment for Children and Youth 37(3): 226-243	- Exclude - population not specific to LACYP
Lovett, Nicholas and Xue, Yuhan (2020) Family First or the Kindness of Strangers? Foster Care Placements and Adult Outcomes. Labour Economics 65(0)	- Exclude - not an economic evaluation
McDermid, S.; Holmes, L. (2013) The cost effectiveness of Action for Children's intensive family support services.	- Exclude - Study focus in preventing children coming into care
Mujica Mota, R., Lorgelly, P. K., Mugford, M., Toroyan, T., Oakley, A., Laing, G., & Roberts, I. (2006). Out-of-home day care for families living in a disadvantaged area of London: economic evaluation alongside a RCT. Child: care, health and development, 32(3): 287–302	- Exclude - Not specific to looked after children and young people
Shiell, M.; Wright, K (1988) The economic costs of a normal life: the case of Dr. Barnardo's Intensive Support Unit. Mental Handicap Research 1(1): 91-101	- Exclude - Not specific to looked after children and young people

Study	Reason for exclusion
Swenson, C.; Randall, J.; Henggeler, S.; Ward, D (2000) The outcomes and costs of an interagency partnership to serve maltreated children in state custody. Children’s Services 3(4): 191-209	- Exclude - Costing analysis of resource utilisation alongside an RCT - Exclude - Not a formal economic evaluation
Zagar, R.J.; Busch, K.G.; Hughes, J.R. (2009) Empirical risk factors for delinquency and best treatments: where do we go from here? Psychological reports 104(1): 279–308	- Exclude - Not specific to looked after children and young people
Zerbe, R.; Plotnick, R.; Kessler, R. (2009) Benefits and costs of intensive foster care services: The Casey Family programs compared to state services. Contemporary Economic Policy 27(3): 308-320	- Exclude – Compares private and public foster care in the US - Exclude – Comparators not relevant to UK context

Appendix K – Research recommendations – full details

Research recommendation

What is the effectiveness of interventions to promote physical activity and a healthy diet and lifestyle in looked after children and young people?

Why this is important

Looked after children are more likely to be overweight and obese compared to standard norms. A large proportion of looked after children have been found to experience an increase in BMI once in care (35%). Children and young people may come into care with a poor nutritional status. LACYP frequently have food anxieties (such as overeating or hoarding food) because of early experiences of either abuse or neglect. Additionally, in older looked after young people, rates of smoking and recreational drug use are also higher. Carers themselves face barriers such as lack of financial support, access to relevant training, and may have concerns about their own lifestyle and habits.

Rationale for research recommendation

Importance to 'patients' or the population	Looked after children are known to have poorer diet, lifestyle, and physical health outcomes (for example, obesity) compared to those who are not looked after. This is of concern to looked-after children and their guardians since physical and nutritional health impact long-term physical, mental and emotional health and wellbeing.
Relevance to NICE guidance	Interventions to improve physical, mental, and emotional health and wellbeing have been considered in this guideline. However, no evidence revealed effective interventions for improving physical and nutritional health in this population.
Relevance to the NHS, public health, social care and voluntary sectors	Promoting healthy lifestyle in looked after children is likely to have a beneficial impact

	upon current mental and emotional health, as well as helping to reduce obesity, with subsequent reduced risk of developing heart disease and diabetes if changes are maintained into adulthood. As well as reducing use of mental health services, preventing long term obesity and it's additional health risks is likely to have profoundly benefits future NHS resource use.
National Priorities	High: this research question is relevant to national statutory policy documents such as Promoting the health and well-being of looked-after children: Statutory guidance for local authorities, clinical commissioning groups and NHS England from the Department of Education, and the Department of Health
Current evidence base	Minimal non-UK-based RCT evidence was identified looking at interventions to improve exercise, diet, or lifestyle in looked after children and young people. However, these were unable to determine a significant impact.
Equality considerations	Research should consider the difference in context between looked after children in foster home, residential care settings, or those who have aged out of care. Research should consider the differences in approaches required for looked after young children, and those who are older, adolescent, or care leavers. Physical and nutritional health exercises may be effective interventions in looked after children and young people with pre-existing mental health problems.

	Research should consider approaches required to improve physical activity and diet for children who are placed out of area. Unaccompanied asylum seekers may require different approaches to improve physical activity and diet: many may struggle to understand the language, and may require education about the benefits of healthy diet and exercise Many looked after children have additional learning needs and may require tailored approaches to improve physical activity and diet.

Modified PICO table

Population	Looked after children and young people (wherever they are looked after)
Intervention	Interventions to promote exercise and healthy diet and lifestyle, for example, interventions for delivering advice, education, signposting, and information for LACYP, or targeted and specialist services for LACYP and care leavers focussed on promoting exercise and healthy diet, stopping smoking, or reducing recreational drug use.
Comparator	Usual care, waiting list, or another commonly used intervention designed to support physical activity and nutritional health, or support abstinence from smoking or recreational drug use.
Outcome	Number obese, overweight, or underweight Improved health behaviours, e.g. increased consumption of healthy foods, reduced

	consumption of unhealthy foods, reduced sedentary lifestyle, increased physical activity Number with nutritional deficiency, cessation from smoking, abstinence from recreational drug use.
Study design	Randomised controlled trial or controlled prospective experimental study.
Timeframe	Results should include moderate-term outcomes (e.g. 6-month) and long-term outcomes (1-2 year follow up).
Additional information	None

Research recommendation

What is the effectiveness of interventions to support the mental health of unaccompanied asylum seekers?

Why this is important

Unaccompanied asylum seekers represent around 6% of all children looked after in England, however their needs are often distinct from those of other looked after children. Many have experienced severely traumatic events and struggle with sleep and acclimatisation having reached the UK. In addition, this population may experience great uncertainty with regard to the future and immigration status. Traditional mental health approaches may not be appropriate for this sub-population of looked after children and young people who may have cultural reasons for not trusting or engaging with mental health support.

Rationale for research recommendation

Importance to ‘patients’ or the population	The prevalence of mental health problems is high among unaccompanied asylum seekers who often have high degree of trauma, struggle

	with sleep and acclimatisation to the UK, fears for the future and distinct support needs.
Relevance to NICE guidance	Interventions to improve physical, mental, and emotional health and wellbeing have been considered in this review chapter. However, few studies considered unaccompanied asylum seekers.
Relevance to the NHS, public health, social care and voluntary sectors	Unaccompanied asylum seekers represent around 6% of all children looked after in England. Effective interventions to support mental health in this population at an early stage could help prevent the need for tier 3 or 4 CAMHS, as well as further care following transition into adult services needing future NHS resources.
National Priorities	High: this research question is relevant to national statutory policy documents such as Care of unaccompanied migrant children and child victims of modern slavery (2018) from the Department of Education.
Current evidence base	One small non-UK-based RCT study was identified. However, no other studies considered the treatment of mental health problems in unaccompanied asylum seekers.
Equality considerations	Research should consider the differences in approaches required for looked after young children, and those who are older, adolescent, or care leavers. Research should consider approaches required for those who struggle to understand the language, and may require education about the benefits of mental health support.

	Looked after children have additional learning needs and may require tailored approaches.

Modified PICO table

Population	Unaccompanied asylum seekers who are looked after.
Intervention	Targeted and specialist services for Unaccompanied Asylum Seeking LACYP and care leavers (for example, LACYP-specific services for health and wellbeing promotion, relationship counselling, and mental health)
Comparator	Usual care, waiting list, or another commonly used intervention designed to support mental or emotional health.
Outcome	Mental wellbeing Emotional wellbeing Placement Stability Use of mental health services Use of Mental health therapies and drugs
Study design	Randomised controlled trial or controlled prospective experimental study
Timeframe	Results should include moderate-term outcomes (e.g. 6-month) and long-term outcomes (1-2 year follow up).
Additional information	None

Appendix L – References

Other references

None

Appendix M – Other appendix

Two expert testimonies were included among evidence presented in this review chapter.

1. Expert testimony to inform NICE guideline development – Service Manager for UASC in Kent

Section A: Developer to complete	
Name:	Alex Stringer
Role:	Practitioner - Service Manager Service for Unaccompanied Asylum-Seeking Children (SUASC)
Institution/Organisation (where applicable): **Contact information:** xxxxxxxxxxxxxxxxx	Kent County Council

Guideline title:	Looked After Children and Young People
Guideline Committee:	Advisory committee
Subject of expert testimony:	The needs of LACYP who are unaccompanied children seeking asylum
Evidence gaps or uncertainties:	The guideline scope highlighted that special consideration should be given to LACYP who are unaccompanied children seeking asylum. There was a lack of evidence for this population therefore expert testimony was sought to fill this important gap.

Section B: Expert to complete
Summary testimony:

Background

Kent's proximity to mainland Europe and having Dover seaport and Eurotunnel at Folkestone means UASC regularly present to its Children's Services.

Arrive within vehicles crossing the Channel by ferry or the Eurotunnel or on small boats operated by criminal gangs

They become Children in Care to local authorities by nature of absent parenting and that without care and accommodation they would be destitute. They have the same rights and the local authority has the same responsibilities as with citizen children. Data shows a prominence of males, aged between 15 and 17 years old, from Afghanistan, Iran, Iraq, Eritrea and Sudan.

Challenges

They have complexity of need – language, cultural and religious needs and conflict it can bring with other young people, mental health needs, infectious disease (TB)

Arriving with nothing but clothes on their backs

Very little is known – dependent on what the young person tells us

Negative experiences of authority and distrust of professionals/some staff

Expectations that young people put on themselves or put them by family or agents

Wanting to be a doctor or an engineer but arriving with very little English

Pressure this puts on staff

We know young people's journeys to the UK are facilitated by agents and criminal gangs and debt can be owned by the young person or their families

On-going risk once in the UK, Non-EEA children were more likely to be missing at point of referral and majority remained missing. Sexual exploitation was the primary form of exploitation for ¾ of all females. Criminal exploitation was primary form for ½ of all males. When the children are located, they are often in other parts of the UK, e.g. Birmingham or Bristol, and need to be returned to Kent at short notice. Best way to prevent a child going missing was asking the right questions/information at arrival – taking phone numbers / contacts in the UK / IMEI numbers from phones. Close working with Police.

Age assessments

The lack of documentary evidence for newly arrived children's claimed age and a disparity between that claimed age and their presentation leads to concern they could be an adult.

Changes to Home Office policy in response to legal judgements (BF (Eritrea) v Secretary of State for the Home Department 2019) has led to an increase in Home Office referrals for age assessments.

Need to both recognise the emotional impact that age assessments can have, also have to accept that some adults do arrive in the UK and claim to be children. Age assessments need to be done at pace to manage the risks posed to children in placement with the potential adult, about whom very little is known but who is likely to have experienced trauma prior to arrival in the UK. The children themselves are vulnerable due to their pre-placement experiences.

Always encourage professionals to respond if asked for an observation of a young person being age assessed as it comes from a position of safeguarding all children in all settings.

Priorities for UASC

Research and theory regarding social work practice with UASC illustrates the process of resettlement and the importance of this in supporting UASC

Research as well as experience highlights that the priorities for UASC in achieving this initial resettlement are largely practical

From personal experience young people's priorities are -

- Determination of their asylum claim
- Access to a good solicitor
- Access to education or employment
- Securing long-term accommodation and finances

Trauma informed approach, some questions are required in order to make best interest decisions and make sure the child's needs are met but recognising the impact of repeated questioning about past events and loss that could re-traumatise.

Managing risk

Collaborative working – this is key in managing the risks described and managing the volume of demand

Clear protocols – a lack of clarity regarding processes and the reasons for them so we're working hard to make it clear to both our staff and partner agencies what happens, when, how and why

Training and promotion of good practice –I am trying to explain the complex work involved in social work practice with UASC, how good practice does occur and hopefully encourage it to improve

The vast majority of UASC are highly motivated, resilient and a pleasure to work with!

References to other work or publications to support your testimony' (if applicable):
N/ A
Disclosure: Please disclose any past or current, direct or indirect links to, or funding from, the tobacco industry.
None
Declaration of interests: Please complete NICE's declaration of interests (DOI) form and return it with this form. **Note: If giving expert testimony on behalf of an organisation**, please ensure you use the DOI form to declare your own interests and also those of the organisation – this includes any financial interest the organisation has in the technology or comparator product; funding received from the manufacturer of the technology or comparator product; or any published position on the matter under review. The declaration should cover the preceding 12 months and will be available to the advisory committee. For further details, see the NICE policy on declaring and managing interests for advisory committees and supporting FAQs.

Expert testimony papers are posted on the NICE website with other sources of evidence when the draft guideline is published. Any content that is academic in confidence should be highlighted and will be removed before publication if the status remains at this point in time.

2. Expert testimony to inform NICE guideline development – Doctor for Child Protection in Lambeth

Section A: Developer to complete	
Name:	Dr Ann Lorek
Role:	Practitioner - Consultant community paediatrician
Institution/Organisation (where applicable): **Contact information:** **xxxxxxxxxxxxxxxxxx**	Guy's and St Thomas Hospital Evelina London, and Lecturer, (International) Child Studies at King's College London
Guideline title:	Looked After Children and Young People (LACYP)
Guideline Committee:	Advisory committee
Subject of expert testimony:	The healthcare needs of LACYP who are unaccompanied children seeking asylum

Evidence gaps or uncertainties:	The guideline scope highlighted that special consideration should be given to LACYP who are unaccompanied children seeking asylum. There was a lack of evidence for this population therefore expert testimony was sought to fill this important gap.
Section B: Expert to complete	
Summary testimony:	[Please use the space below to summarise your testimony in 250–1000 words. Continue over page if necessary]

The following aims to address the specific questions of this NICE review in the context of the experiences of the UASC.

1 Supporting care and placement stability

UASC are more likely to settle if they have:

- a safe and supportive place to live
- continuities with past relationships, customs and cultures, and opportunities to create new ones
- access to purposeful education and training
- opportunities to move forward from troubling experiences, re-centre their lives, and find new purpose in everyday routines and activities

Wade (2005)

a) Placements; Foster care rather than semi independent. Foster care, mainly for children under the age of 16 years on arrival is found to be positive in terms of education, MH, and integration as well as advocacy (Wade, 2012; Oppedal & Idsoe, 2015; Hodes, 2008).

b) Cultural similarity may help promote wellbeing and good MH as reviewed by O'Higgins (2018). However if carers are sensitive to culture, familiar foods and religious practices then other placements can still be helpful (Chase, 2008; Wade, 2012). Wade notes that placement stability was linked to 'sensitivity, capacity to adapt and curiosity' and that developing trust was important in preventing placement breakdown. (See also Hardy, 2018).

c) In order to meet the cultural needs of unaccompanied children it is important that foster carers are able to access support, information and training (Rogers, 2018).

d) Social work training needs have been mapped by IOM (2018) and about a quarter of SW have not had specialist training. Key training needs have been identified in terms of Immigration and Asylum process, understanding the context of migration/experiences, psychological/MH needs, identifying support services for UASC, identity needs (gender, race, culture etc).

e) Paediatricians and carers also need specialist training (The Children's Society 2019).

f) Older UASC may also have greater difficulty in navigating systems if they may find language learning more difficult and foster care may support this.

g) Placement stability is supported by being in education as it improves mental health (other than PTSD which is linked to past trauma).

h) Key environmental supports are linked to relationships and education (Doggett, 2012).

i) Placement stability requires identification and management of unmet MH and bereavement need relating to trauma (see below).

j) Young people are actors in the settling process, and the importance of community is noted.

k) Developing autonomy should be acknowledged and supported, with acknowledgement that the care system can also be intrusive.

l) Multiple transitions should be avoided.

2 Interventions to promote positive relationships
Relationships will be more positive with authority if there is mutual respect, understanding of possible mistrust of authority, appropriate interpreter support, and an understanding of possible trauma, culture and needs of the young person. There needs to be appropriate training of staff, professionals and carers as outlined above.
Education is one of the most powerful tools to support normalising of life and building relationships (Kia Keating, 2011), as well as faith and social groups, including sports. Football and Cricket are the most requested, with football the more likely to be provided! There needs to be recognition of the need for culturally familiar, as well as to support integration. There is also potential vulnerability within similar backgrounds and cultural awareness is essential for carers and social workers. Food is part of 'finding sanctuary and negotiating belonging within a foster family' (Kohli, 2010).

Faith, culture and identity
Foster carers can help in making cultural links but notes that not all young people wanted links to the same degree – 'important to remember that their 'concepts of faith culture and identity are fluid and change over time'. Importance of support noted whilst recognising developing autonomy (Wade, 2012).

3 Supporting physical, mental and emotional health and wellbeing of looked-after children and young people during the care journey and as care leavers

Health
- Early screening may not have taken place in the country of origin and should be considered, for example relating to haemoglobinopathy.
- Vision and hearing screening forms part of the LAC guidance.

- Nutrition has often been poor in the journey, and not all UASC know how to shop and cook. Poor diet also leads to a common complaint of constipation. Vitamin D deficiency can occur.
- UASC often have epigastric symptoms and good practice is to refer for further management of possible helicobacter. Skin conditions are common.
- There is a lot of information about communicable disease in studies, as well as nutritional and dental problems, skin complaints and constipation. MH is found to be a key issue.
- For an overview relating to refugee children in general see reviews by Williams (2016) and Kadir (2019).
- Statutory health assessment should be comprehensive, and related to possible experiences of loss, trauma and trafficking. Interpreters should be culturally appropriate. Guidance is provided relating to UASC in care (CoramBAAF 2017).
- Immunisations are rarely documented and so need to be provided according to current Public Health England Guidance.
- Infectious diseases are relatively common, and testing is recommended for blood borne infection including Hepatitis B.
- TB screening is recommended with IGRA blood test if available, or referral to a local chest clinic may be indicated.
- Specialist training and clinics are recommended to provide a holistic culturally appropriate assessment, give health promotion, and to identify contextual harm.
- There should be identified pathways for referral on relating to Mental Health, infectious disease, and sexual health.

Access to services

The basics need to be in place. Early studies indicated that 22 % of UASC were not registered with a GP (Hollins, 2007).

It is essential that documentation is processed quickly from Social services in order to access services and initial statutory health assessment. Many UASC from a range of

boroughs were not referred for many months outside statutory guidance for their initial health assessment (Habeeb, 2016) leading to lack of advocacy and health care.
UASC were also less likely to attend MH provision if they were in independent accommodation. (Mitra, 2019) and older adolescents may be expected to access MH provision without a responsible adult.
A study by Sanchez-Cao (2013) found that many UASC were distressed but only 17% were in contact with MH services. They were more likely to be in contact if they had depressive symptoms, and other issues were not identified by observers. Hollins et al (2007) found that Albanian speakers arriving at an older age had greater psychological difficulties, and may have been less likely to access services.
These all indicated that there needs to be appropriate placement, settling in education, timely statutory LAC assessment including more formal MH screening of adolescents.

Mental Health and wellbeing ;
UASC have greater MH difficulties including PTSD compared with refugees in families. They have needs to support wellbeing, as for any child in care, including placement stability, education, sport, faith groups, friends and similar language friendships. Red Cross family tracing can be transformational. Promoting resilience is essential to consider in the care journey.
The following does not explore best methods of treatment of particular conditions, but considers issues, services and support that may be needed in order to improve access to MH services.
Older arrivals can have more psychological difficulties and may be less able to find the language or understand service provision (Hollins, 2007)
Difficulties for older children increase as they reach the end of their asylum application or are applying at the end of UASC leave, and are not able to control their future or plan effectively.
Those UASC receiving status can also become isolated as they lose the supports of the care system after leaving care. Application to education is complicated by asylum status, age assessment, access and the cost of applying for further education.

Others are at risk of homelessness or a return to uncertain settings that have not been studied fully in terms of outcome. These all impact on wellbeing.
Issues of fear and stigma prevent UASC seeking help for MH difficulties (Fazel 2016). It is essential that foster carers and social workers for UASC are trained and sensitive to MH difficulties. It is essential for the UASC to be registered with GPs in order to access help.
Boys are in general less likely to seek help. (NCB, 2016).
Issues of service provision are reviewed by Davies Hayon et al (2019).
Depression may be more easily recognised than other conditions and there is evidence of the need for additional MH screening for this population (Children's Society, 2018) and this is being piloted in a number of areas, and has formed part of local practice in conjunction with Clinical Psychology in UASC and LAC assessments since 2006 leading to increased referrals to CAMHS as SDQ were found to be insufficient for example in identifying PTSD type symptoms. Lack of awareness and training of paediatricians, GPs and social workers are described in the Children's Society (2018) report, with longer term vulnerability and harmful symptoms of PTSD. Other issues raised include legal barriers, lack of support, difficulties settling and relating to long term prospects.
Fazel (2015) and Fazel et al (2016) describe how the supportive role of teachers can help some UASC access MH services and in providing support. Peer support and recognition is also part of the healing journey and also highlights the importance of teachers and school based services (Fazel 2015).
Whatever their legal status, there is often mistrust of health professionals because of perceived with the state leading to distrust and anxiety, as noted by Majumder (2015) in relation to MH services in clinic or hospital settings.
UASC may find therapy unhelpful if they have been expecting medication, or were afraid of being misunderstood. A number found the experience re-traumatising if required to talk about past experiences Majumder et al (2015) although talking therapies were found to be helpful in peer relations if not re-visiting trauma. (Fazel et al, 2016)
Red Cross family tracing can have life improving consequences, and needs facilitation.

Education in itself is crucial to supporting wellbeing and helps with depressive symptoms (Kia–Keating, 2011) and early education placement is essential.
Foster care is highly protective, but many carers do not recognise underlying trauma (Mitra, 2019) and training and supervision is essential.

Sleep disturbances
Sleep disturbances are common with significant impact on daily functioning. These range from nightmares to PTSD. Sleep hygiene advice to cut stimulants, good nutrition and support have been found to be helpful as part of the project. 'We didn't know because we hadn't asked' (Carr, 2017). Training is crucial in this area for practitioners.

Safeguarding issues and sexual health
Care for UASC requires specialist knowledge, in addition to that required for supporting Looked after Children, relating to their past experiences and background.
YP are living away from home without a usual adult carer. They are vulnerable to child sexual abuse and child criminal exploitation.
Many, including boys, have experienced past sexual violence, sometimes at the hands of humanitarian operations.
Gender difference is noted in that abused boys may report later (Majeed-Ariss, 2019).
Recent sexual assault requires early referral to a sexual assault centre. Past assault also needs follow up for infection, and referral for sexual violence counselling. There is some evidence that may not identify as victims (see also McKibbin et al, Child abuse review Vol 28:418-430).
They also need to know of, and be supported to access advice and services, as many young people are unaware of contraceptives or how to protect from infection and need further advice and services. Half of pregnant girls were pregnant before going into care (John-Legere, 2012). Frontline response may not identify abuse, or recognise the need to address past abuse in terms of Sexual Violence Counselling, and sexually transmitted diseases.

A number of young people arrive from countries not usually associate with asylum claims (Vietnam, Nigeria), but are highly vulnerable to episodes of missing and to trafficking. Specialist UASC teams are more likely to address episodes of missing in the light of this. There also needs to be carer and key worker awareness of ongoing vulnerability, and a trusted adult who is able to support with safe choices and encourage resilience.
There needs to be a sensitive awareness of what UASC may have experienced, as well as their ongoing vulnerabilities. Specialist training of carers and social workers is required relating to vulnerabilities.
FGM may have taken place, and would form part of the requirement to report to the police, and would need to be done very sensitively, given the vulnerabilities of UASC in terms of authority figures and legal status.
See also Home Office (2017) Safeguarding strategy Unaccompanied Asylum Seeking and Refugee Children

Age assessment
Age dispute leads to possible detention as a child, delays in placements and education and health access, as well as potential vulnerability of other children if age is underestimated. Ethnicity and social experience will impact on presentation, and there has been a culture of disbelief (Crawley 2005).
Cole (2015) has reviewed the literature, and advises against wrist X ray. Wrist MRI and X-Ray of the 3rd molar proved wrong in a third, with particular errors if scans were immature. These scans are not recommended by the Royal College of Paediatrics and Child Health.
Children that have been detained as adults have MH difficulties as found by Ehntholt et al (2018) in a survey of adults where age disputes were a factor in poor MH, more than three years after detention.

4 Supporting Learning needs
The first hurdle is access to appropriate education. The UK target for placement in education by 20 days but no region in the UK met that target. Gladwell (2019) highlights

difficulties in obtaining places, and lack of specialist Local Authority UASC teams as well as delays when the UASC are part of the National Transfer Scheme. This is particularly if there are MH difficulties, and age disputes.
Gladwell (2018) UNICEF report involved an FOI request from all LA in E and W, in depth interviews and focus group discussions (24 UASC) and key informant interviews. Individual and institutional commitment were found to decrease barriers to access and support retention.
Barriers to education were if UASC were placed in college rather than school, insufficient EAL support, ongoing MH difficulties, and anxiety about asylum claim.
Recommendations are made in terms of EAL and pastoral support availability, and training of staff around education and MH needs of UASC as well as peer involvement.
UASC are often highly motivated in education and do well (Cameron et al. (2012), being disproportionately represented in care leavers going to university in Jackson et al.'s (2005) *By Degrees* study. Recent attention to educational outcomes for children in care appears to have translated into higher educational expectations for this group, but these are not always backed up by the necessary expertise among social workers or competence and confidence in foster carers (Driscoll, 2018). Virtual school heads may fulfil a valuable role in supporting young people's individual aspirations (Driscoll, 2018).

Supporting learning needs requires;
MH and wellbeing support, including via access to education and community

A key figure in young person’s life essential to build resilience

Facilitation, either by carer, or SW who has been appropriately trained

Language learning as early as possible
YP – may not be in appropriate education eg a few days a week English classes may not stretch them enough
MH support – assessment and management as MH Difficulties and trauma related issues will affect capacity to sleep and their abilities

General support to attend including Bus Pass etc

A designated teacher who understands the needs of the young person

Appropriate course and careers advice for UASC

5 Preparing children and young people for leaving care

Older UASC are often accommodated under s20 Children Act 1989 rather than placed in care, with the result that no-one holds parental responsibility for them, although they are entitled to leaving care services if they meet the criteria and subject to later changes in status.

In common with other care leavers, UASC are at risk of a dearth of supportive adult relationships in their lives coupled with delayed educational progress coinciding with accelerated transitions to adulthood (Driscoll, 2018).

Attention should be paid to relational aspects of autonomy, and professionals should be alert to self-reliance manifesting in a reluctance to seek help, which may be seen as developmentally inappropriate or reflecting dependency (Driscoll, 2018).

All need timely referral for IHA and RHA in order to address unrecognised need, and should be seen by trained LAC doctors able to explore health including sexual health, MH and social need holistically and in a culturally appropriate way.

Social workers and health need to work together to promote transition, and handover of health information to young people in a sensitive way.

There are pressures for all LAC leaving care, but there is the added factor of legal status, and many UASC have discretionary leave until 17.5 years of age, and need a skilled solicitor to present the evidence base. Support and resilience building at an early stage is essential as MH can deteriorate with ongoing uncertainty.

Obtaining status is not the answer to difficulties, and may mean that support is withdrawn.

Any cognitive or learning needs must have been identified within the health or education setting and the capacity to live independently should have been assessed with the social worker.

Further education should be supported, as well as appropriate careers advice.

A child rights approach is essential to both safeguard and to allow to develop autonomy.

Kohli (2011) sums it up well, that there is ‘some good evidence of safety and belonging in the context of permanent resettlement, and relatively poor understanding of success when children and young people are forced to return away from the country of asylum’. UASC need support relating to the possibility of leaving UK, in terms of exploring options for future and coping strategies. Best practice around this should form part of further research.

6 Preparing care leavers for independent living

Each young person is unique and needs an individualise care plan. Early MH support is essential, including supporting education, social and health needs, as ongoing MH difficulties will lead to further exclusion.
The transition is made harder as others move away from care homes and receive status or are deported and ongoing relational work and activities are essential if possible, particularly as further education placements may be difficult to consider financially as they would be ‘overseas’ students whilst applying for status.
A number in care continue to be vulnerable, and there is a transitional safeguarding risk beyond 18 years. There should be regard to the risk from county lines, criminal exploitation, and the risk of homelessness if their asylum application fails.
There is vulnerability of YP returning to countries such as Afghanistan – and a particular vulnerability of young people unable to speak home language and without contacts, and these require appropriate legal advice early in application, with a culturally appropriate interpreter.

As described above, young people do better in foster care in terms of mental health, although it is recognised that many want to be independent. Good foster carers can help to build resilience and ideally are able to continue a supportive relationship after leaving the care system.

References to other work or publications to support your testimony' (if applicable):
Cameron et al (2012). Continuing educational participation among children in care in five countries: some issues of social class. Journal of Education Policy, 27(3): 387-399 Carr (2017) Evaluation of the sleep project for UASC in Kent. create.canterbury.ac.uk/16763/ Cole TJ (2015) The evidential value of developmental age imaging for assessing age of majority. Annals of Human Biology 42:4, pp 379 – 399 CoramBAAF (2017) The health of unaccompanied asylum–seeking and other separated children. CoramBAAF Practice Note 66 Crawley H (2007) When is a Child not a Child? Asylum, age disputes and the process of age assessment. Available at www.ilpa.org.uk/pages/publications.html Davies Hayon T, Oates J. (2019) The mental health service needs and experiences of unaccompanied asylum-seeking children in the UK: a literature review. Mental Health Practice 2019 doi: 10.7748/mhp.2019.e1387
Disclosure: Please disclose any past or current, direct or indirect links to, or funding from, the tobacco industry.

None
Declaration of interests: Please complete NICE's declaration of interests (DOI) form and return it with this form. **Note: If giving expert testimony on behalf of an organisation**, please ensure you use the DOI form to declare your own interests and also those of the organisation – this includes any financial interest the organisation has in the technology or comparator product; funding received from the manufacturer of the technology or comparator product; or any published position on the matter under review. The declaration should cover the preceding 12 months and will be available to the advisory committee. For further details, see the NICE policy on declaring and managing interests for advisory committees and supporting FAQs.

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