National Institute for Health and Care Excellence

Draft for consultation

Looked-After Children and Young People (update)

[C] Evidence review for interventions to support positive relationships for looked-after children, young people and care leavers

NICE guideline NGXXX

Evidence review underpinning recommendations 1.2.2 to 1.2.5, 1.2.20, and 1.3.12 to 1.3.16.

April 2021

Draft for consultation

These evidence reviews were developed by NICE Guideline Updates Team

Disclaimer

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or service users. The recommendations in this guideline are not mandatory and the guideline does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

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ISBN:

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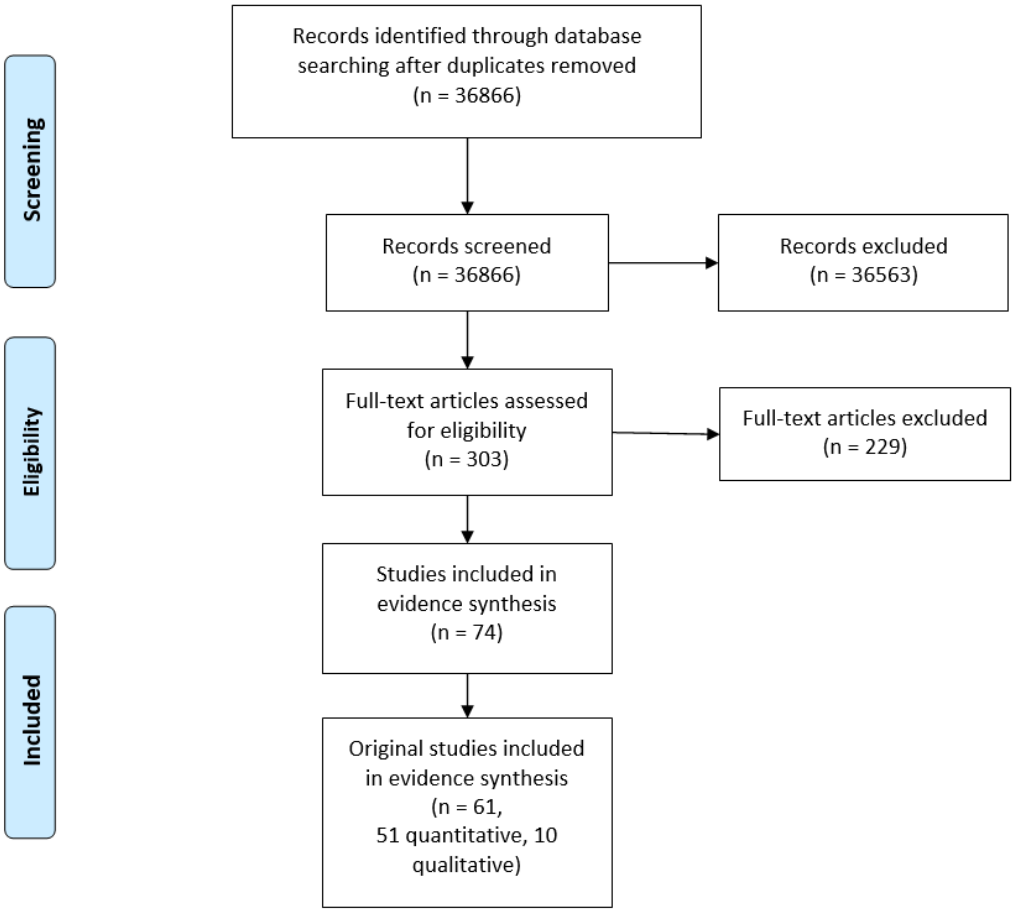

Interventions to support positive relationships in looked-after children and young people

Review question

2.1a What is the effectiveness of interventions and approaches to support positive relationships for looked-after children and young people and care leavers?

2.1b Are interventions to support positive relationships acceptable and accessible to looked-after children, care leavers and their care providers? What are the barriers to, and facilitators for the effectiveness of interventions to support positive relationships?

Introduction

This review will consider interventions to support positive relationships in children and young people who are looked after and care leavers. In March 2018, 75,420 children and young people in England were looked after. Care placements for looked after children and young people may include: foster placement (73%), residential accommodation (including secure units, children's homes, and semi-independent living arrangements) (11%), placement with birth parents (6%), placement for prospective adoption (3%), another placement in the community (4%), or placement in residential schools or other residential settings (3%). For looked after children and young people only 29% of placements are long term and 50% of long-term teenage placements have been found to break down. The main reason for children and young people entering care was abuse or neglect (reported for about 63%). Positive relationships may have a positive influence on physical and mental health and wellbeing outcomes as well as improving placement stability in the lives of looked after children/young people and care leavers. Interventions that support positive relationships in looked-after children could help to improve a wide range of outcomes including educational, relational, and physical, mental, and emotional health and wellbeing.

Local authorities may use interventions to support positive relationships (which includes interventions to help improve problem behaviours) in looked after children and young people, however there is uncertainty about which specific interventions work. In addition, a positive relationship may provide support and mentorship to a person who is a care leaver. The (2010) NICE guideline for looked-after children and young people did not include recommendations on specific interventions to support positive relationships. A NICE surveillance review found new evidence that indicated recommendations on interventions to support positive relationships in looked-after children might be needed.

Summary of protocol

PICO table

Table 1: PICO for review on interventions to support care positive relationships in looked-after children and young people

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. • Children and young people preparing to leave care. • 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 support positive relationships. Including support for: children and young people themselves; birth families (with children and young people under a full care order); foster carers; key workers in residential care units; connected carers; prospective adopters; special guardians; and social care workers. Example interventions and approaches of interest include: • Interventions to improve the relationship quality of siblings in care (including siblings living together and siblings separated by care processes) • Interventions to improve the relationship quality with foster family/prospective adoptive birth children • Interventions to improve relationship between LACYP and carers (excluding interventions for attachment disorders) • Interventions to improve the relationship of LACYP and care leavers with peers, including at school, work, socially, or with other LACYP • Interventions and approaches to improve the relationship of LACYP and care leavers with other adults in positions of trust (for example, youth workers, advocates, teachers, health care professionals, social workers, and personal advisors) • Interventions and approaches to support placement stability, where relationship quality (as defined above) is reported as an outcome. • Group programmes and evidence-based parenting programmes (e.g. Solihull approach, Kim Goldings therapeutic parenting)
Comparator	Quantitative evidence Comparator may include standard care, waiting list, or another approach to support positive relationships
Outcomes	Quantitative evidence • Quality of the relationship between child or young person and significant people in their lives such as siblings, peers, carers, or trusted adults • Behavioural and social functioning • Criminal outcomes

SPIDER table

Table 2: SPIDER table for review on interventions to support care placement stability in looked-after children and young people

Sample	Looked after children and young people and care leavers (wherever they are looked after) from birth to age 25.
Phenomenon of Interest	Health and social care interventions and approaches to support positive relationships.
Design	Including focus groups and interview-based studies (mixed-methods studies will also be included provided they contain relevant qualitative data).
Evaluation	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 in supporting positive relationships
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. For further details of the methods used see Appendix N. Methods specific to this review question are described in this section and in the review protocol in Appendix A.

The search strategies for this review (and across the entire guideline) are detailed in Appendix B.

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

Effectiveness evidence

Included studies

The search for this review was part of a broader search for the whole guideline. After removing duplicates, a total of 36,866 studies were identified from the search. After screening these references based on their titles and abstracts, 303 studies were obtained and reviewed against the inclusion criteria as described in the review protocol for interventions to support placement stability (Appendix A). Overall, 74 studies, reporting 61 original studies were included. 229 references were excluded because they did not meet the eligibility criteria.

The evidence consisted of 51 randomised controlled trials and 10 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 36 different interventions to support positive relationships in looked-after children.

Excluded studies

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

1 Summary of studies included in the effectiveness evidence

2 Quantitative evidence

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

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
Akin 2015 (USA - RCT)	Foster care, children identified as having serious emotional disturbance (aged 3 to 16 years)	Parent Management Training-Oregon (PMTO)	Care as Usual (CAU)	PMTO: 78 CAU: 43	Caregiver-reported social-emotional functioning at postintervention Caregiver-reported problem behaviour score at postintervention Caregiver-reported social skills score, postintervention
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 Caregiver-reported problem behaviour score at 6-months follow up/12-months follow up Caregiver-reported social skills score, 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	Experience of a locked setting over 1 year follow up/over 3 years follow up Criminal activity over 1 year/3 year follow up Violent crime over 1 year/3 year follow up
Bick 2013 (USA – RCT)	In foster care (22 months of age or younger)	Attachment and Behavioural Catch-up (ABC)	Developmental Education for Families (DEF)	ABC = 44 DEF = 52	Association between ABC and change in maternal sensitivity score from pre-postintervention
Briskman 2012 (UK – RCT)	Children in care/special guardianship but not in kinship care	Fostering Changes Programme (FC)	Wait list control (WL)	FC = 51 WL = 38	Child behaviour problems mean score at three months follow-up Change in foster child's attachment relationship with foster carer mean score three months post-randomisation Conduct problems score at 3 months postbaseline

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
	(aged between 2 and 12)				Peer-relationships score at 3 months postbaseline Pro-social score at 3 months postbaseline
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 score at 6 months follow up
Casonato 2017 (Italy – RCT)	Parental residential care centres for mothers and children receiving protective and educational services for issues related to child maltreatment	Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline (VIPP-SD)	Control arm (phonecall)	VIPP-SD = 7 Phonecall = 5	Maternal sensitivity score postintervention
Conn 2018 (USA – RCT)	foster care (aged 2-7 years)	Incredible Years (IY)	WL	IY = 16 WL = 17	Total behavioural problems score postintervention Externalising problems score postintervention Internalising problems score postintervention Parenting stress score postintervention Parent distress score postintervention Parent-child dysfunctional interaction score postintervention Difficult child score postintervention
Curran 2009 (UK – RCT)	Adolescent boys in residential care with behavioural problems	The Ross Programme (RP)	Control group	RP = 16 Control = 16	Total behavioural problems score postintervention Social problem solving avoidance score postintervention Risk of re-offending score postintervention
Dozier 2006 (USA – RCT)	Foster care (infants and toddlers)	ABC	DEF	ABC = 30 DEF = 30	Problem behaviour score

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
Dozier 2009 (USA – RCT)	Foster care (infants)	ABC	DEF	ABC = 22 DEF = 24	Avoidant behaviour score, mean, postintervention Secure behaviour score, mean, postintervention
Eddy 2000/2004 (USA – RCT)	Male and in out of home placements, adolescent chronic and severe offenders	MTFC	Group care (GC)	MTFC = 37 GC = 42	Mean criminal referrals index score at 1 year follow up Positive adult-youth relationship score at placement midpoint Supervision score at placement midpoint Deviant peers score at 1 year follow up Self-reported delinquency score at 1 year follow up Number with no criminal referrals for violent offenses over two years follow up Number with one or more referrals for violent offenses over two years follow up Association between being in the intervention group and number of official violent referrals over 2 years follow up Association between being in the intervention group and self-reported violence over 2 years follow up
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	Association between being in the intervention group and reduced behavioural problems score by 12 months
Fisher 2007/2011 (USA – RCT)	Children in foster care (3-5 years old)	Multidimensional Treatment Foster Care for Preschoolers (MTFC-P)	Routine Foster Care (RFC)	MTFC-P = 57 RFC = 60	Secure behaviour score (mean %) at 3/12 months follow up Avoidant behaviour score (mean %) at 3/12 months follow up Resistant behaviour score (mean %) at 3/12 months follow up

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
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	Self-reported connection to people in school, mean score, postintervention Self-reported youth/natural mentor relationship quality, mean score, postintervention Self-reported youth/natural mentor relationship quality, mean score, postintervention
Green 2014 (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	Criminal offending at 12 months
Haggerty 2016 (USA – RCT)	In foster care (aged 11 to 15 years)	Staying Connected with Your Teen (SCT)	WL	SCT = 32 WL = 28	Teen reported deviant attitudes score mean score at 3-months follow up Teen-reported family conflict score mean score at 3-months follow up Caregiver-reported family conflict score mean score at 3-months follow up Caregiver-reported positive involvement score mean score at 3-months follow up Teen-reported bonding/attachment mean 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	Foster parent-reported mean internalising problem score at postintervention Foster parent-reported mean externalising problem score at postintervention Foster parent-reported mean total problem behaviour score at postintervention
Job 2020 (Germany – RCT)	Young children with a history of maltreatment or	Taking Care Triple P (TCTP)	CAU	TCTP = 40 CAU = 34	Foster parent-reported child relationship score at 6/12 months Foster parent rated child behaviour at 6/12 months

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
	neglect in foster families (age 2 – 7 years)	(parent group training)			Observer-reported parent-child interaction quality at 6/12 months Observer-reported parent-child play task observation at 6/12 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	foster parent and girl reported internalising problems at 6 months foster parent and girl reported externalising problems at 6 months foster parent and girl reported prosocial behaviour at 6 months Prosocial behaviour score at 6/12 months follow up Caregiver-reported Internalising/externalising symptoms score at 12/24 months follow up Delinquent behaviour score at 3 years follow up Association with delinquent peers score at 3 years follow up
Kothari 2017 (USA – RCT)	In foster care (older siblings between the ages of 11 and 15 with a younger sibling up to four years younger)	Supporting siblings in foster care (SIBS-FC)	Foster care as usual (FCAU)	SIBS-FC = 168 FCAU = 160	sibling relationship quality mean score at 18 months foster parent-reported mean externalising problem score at 18 months sibling interaction quality at 18 months
Landsman 2014/Boel-Studt 2017 (USA – RCT)	Foster care (aged 0-17)	Family Finding Intervention (FFI)	CAU	FFI = 130 CAU = 123	Number achieving relational permanency over 3-year observation period
Lee 2016a/b (USA – RCT)	Children in out-of-home care	Head Start (HS)	CAU	HS = 97 CAU = 65	Child-teacher relationship at 5 - 6 years of age Teacher-rated aggressive score at 5 - 6 years of age Teacher-rated hyperactive score at 5 - 6 years of age
Leve 2007/2005a/ Chamberlain 2007 (USA – RCT)	Placed in out-of-home care and at least one criminal referral in the past 12 months (aged 13 to 17 years old)	Multidimensional Treatment Foster Care (MTFC)	GC	MTFC = 37 GC = 44	Delinquency construct score at 12/24 months follow up Log number of criminal referrals at 12/24 months follow up Log number of days in locked settings at 12/24 months follow up Log delinquency score at 12/24 months follow up Caregiver-reported delinquency at 12 months follow up

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
Leve 2005b (USA – RCT)	referred for out-of-home care due to problems with chronic delinquency by juvenile court judges (12 to 17 years old)	Multidimensional Treatment Foster Care (MTFC)	GC	MTFC = 73 GC = 80	Caregiver and youth-reported Delinquent Peer Association at the 12-month follow up Caregiver and youth-reported Delinquent Peer Association at the 12-month follow up Caregiver and youth-reported Delinquent Peer Association at the 12 month follow up
Lipscomb 2013 (USA – RCT)	Children in out-of-home care	Head Start (HS)	CAU	HS = 97 CAU = 65	Teacher-rated teacher-child relationship at 1 year Teacher/caregiver-reported behaviour problems at 1 year
Linares 2006 (USA – RCT)	Non-kinship foster care with goal of family reunification and history of child maltreatment	Incredible Years parent training (IY)	CAU	IY = 80 CAU = 48	Parent and foster parent combined mean externalising score at postintervention Parent and foster parent combined mean externalising score at 3-months follow up Parent and foster parent combined mean externalising and conduct problems score at postintervention Parent and foster parent combined mean externalising and conduct problems score at 3-months follow up Teacher-reported mean disruptive classroom behaviour score at postintervention Teacher-reported mean disruptive classroom behaviour score at 3-months follow up
Linares 2012 (USA – RCT)	Children in out of home care (age 5 to 8 years)	Incredible Years parent training (IY)	CAU	IY = 49 CAU = 45	Foster carer/teacher reported physical aggression at 3-months follow up Foster carer/teacher reported good self-control at 3-months follow up Foster carer/teacher reported poor self-control at 3-months follow up
Linares 2015 (USA – RCT)	Siblings in foster care with history of maltreatment (Eligible sibling pairs were between	Promoting Sibling Bonds (PSB)	CAU	PSB = 13 CAU = 9	Observer-rated sibling interaction quality (positive) mean score at postintervention Observer-rated sibling interaction quality (negative) mean score at postintervention

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
	the ages of 5 years 0 months and 11 years 11 months)				Observer-rated sibling interaction quality (conflict-floor puzzle) mean score at postintervention Foster parent-reported sibling aggression (older sibling- verbal) mean score at postintervention Foster parent-reported sibling aggression (older sibling- physical) mean score at postintervention Foster parent-reported sibling aggression (younger sibling- verbal) mean score at postintervention Foster parent-reported sibling aggression (younger sibling- physical) mean score at postintervention
Maaskant 2017/2016 (Netherlands – RCT)	Foster children with behavioural problems (age 4 to 11 years)	Parent Management Training Oregon (PMTO)	CAU	PMTO = 30 CAU = 33	Foster carer-reported child behaviour score at post-intervention/4-month follow up Foster carer-reported externalising problems score at post-intervention/4-month follow up Foster carer-reported internalising problems score at post-intervention/4-month follow up Teacher-reported child behaviour total problems score at postintervention/4-month follow up Teacher-reported externalising problems score at postintervention/4-month follow up Teacher-reported internalising problems score at postintervention/4-months follow up Parental stress total scale score at postintervention/4-months follow up Parental stress parent domain score at postintervention/4-months follow up Parental stress child domain score at postintervention/4-months follow up
Macdonald 2005 (UK-RCT)	Foster care (age not reported)	CBT-informed Parent training programme (CBT-PTP)	WL	CBT-PTP = 67 WL = 50	Carer-reported proportion of behaviours found challenging at postintervention Carer-reported proportion of behaviours found challenging at 6-months follow up

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
Mersky 2015 (USA – RCT)	Foster Care (age between 2.5 and 7 years old)	Extended/Brief Parent-Child Interaction Therapy (ePCIT/bPCIT)	WL	ePCIT = 35 bPCIT = 48 WL = 41	Caregiver reported parenting stress (total stress scale) mean score at 8/14-weeks postbaseline Caregiver reported parenting stress (parental distress subscale) mean score at 8-weeks/14-weeks postbaseline Caregiver reported parenting stress (Parent-child Dysfunctional Interaction subscale) mean score at 8/14-weeks postbaseline Caregiver reported parenting stress (Difficult child subscale) mean score at 8-weeks/14-weeks postbaseline
Mersky 2016 (USA – RCT)	Foster Care (age between 3 and 7 years old)	Extended/Brief Parent-Child Interaction Therapy (ePCIT/bPCIT)	WL	ePCIT = 19 bPCIT = 39 WL = 33	Child behaviour mean score (intensity scale) at 8-weeks/14-weeks Child behaviour mean score (problem scale) at 8-weeks/14-weeks Child behaviour mean score (externalising score) at 8-weeks/14-weeks Child behaviour mean score (internalising score) at 8-weeks/14-weeks
Mezey (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	Number with self-reported secure attachment style at 12 month follow up Number with self-reported fearful attachment style at 12 month follow up Number with self-reported dismissing attachment style at 12 month follow up "unlikely, or more than unlikely, to seek help from no one for a personal or emotional problem" at 12 months follow up "unable to trust anyone" at 12 months follow up Number in contact with the police in the last year Number cautioned/convicted in the last year Number in contact with the Youth Offending Team in the last year
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	Internalising and externalising behaviours at 24 weeks

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
Minnis (UK-RCT)	Foster care (age 5 to 16 years)	Foster carer training	CAU	Training = 62 CAU = 88	Reactive attachment mean score at postintervention Reactive attachment mean score at 9-month follow up
Moody 2020 (UK – RCT)	Foster carers (age of children not reported)	Fostering Changes (FC)	CAU	FC = 153 CAU = 76	Quality of attachment relationships score at 12 months Behaviour problems score at 12 months
Murray 2018 (USA – RCT)	Treatment foster parents with a youth placed in their home during the study period	Together Facing the Challenge (treatment foster care)	Treatment foster care	TFTC = 47 TFC = 41	Caregiver-reported quality of the relationship between youth and their caregivers at 6/12 months follow up
N'zi 2016 (USA – RCT)	Behaviour disordered (non-severe) children in kinship care (age 2 to 7)	Child-Directed Interaction Training (CDIT)	WL	CDIT = 8 WL = 7	Caregiver-reported child-parent relationship mean score at postintervention Caregiver-reported child externalising behaviour mean score at postintervention Caregiver-reported child internalising behaviour mean score at postintervention
Pasalich 2016/Spieker 2014/Spieker 2012 (USA – RCT)	Children in a court-ordered placement that resulted in a change in primary caregiver (age between 10-24 months)	Promoting First Relationships (PFR)	Early Education Support (EES)	PFR = 105 EES = 105	Caregiver-reported social competence score postintervention/6-months follow up Caregiver-reported problem behaviour score postintervention/6-months follow up Observer-coded attachment security score postintervention/6-months follow up Caregiver-reported caregiver-child engagement score at postintervention/6-months follow up Caregiver-reported internalising behaviour score at 6-months Caregiver-reported externalising behaviour score at 6-months Caregiver-reported emotional regulation score at 6-months Caregiver-reported orientation/engagement score at 6-months

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
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	Foster parent-rated social competence at 2 weeks follow up Foster parent-rated externalising behaviours at 2 weeks follow up Foster parent-rated internalising behaviours at 2 weeks follow up Teacher-rated social problems at 1 month following the start of school Teacher-rated externalising behaviours at 1 month following the start of school Teacher-rated internalising behaviours at 1 month following the start of school Foster parent-rated emotional regulation at 2 weeks follow up Foster parent-rated emotional lability at 2 weeks follow up Assessor-rated emotional lability at 2 weeks follow up Teacher-rated emotional regulation at 1 month following the start of school Teacher-rated emotional lability at 1 month following the start of school
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	Prosocial skills score following intervention Social competence score following intervention Prosocial skills following intervention before starting school Behavioural regulation score following intervention Emotional regulation score following intervention Self-regulatory skills following intervention before starting school Teacher-reported aggressive behaviour at the end of kindergarten year Teacher-reported delinquent behaviour at the end of kindergarten year Teacher-reported oppositional behaviour at the end of kindergarten year Child oppositional and aggressive behaviours at the end of kindergarten year Days free from internalising symptoms over 12 months of kindergarten Days free from externalising problems over 12 months of kindergarten Positive attitudes towards antisocial behaviours at 9 years of age

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
					Involvement with deviant peers at 9 years of age Positive attitudes towards antisocial behaviour at 9 years of age
Price 2008/Chamberlain 2008a/Chamberlain 2008b (USA – RCT)	Foster and kinship care (aged 5 to 12 years)	KEEP foster parent training	CAU	KEEP: 359 CAU: 341	Carer-reported mean number of child problem behaviours per day, 5 months postbaseline
Price 2015 (USA – RCT)	foster and relative (kinship) care (age not reported)	KEEP foster parent training	Standard training (ST)	KEEP = 164 ST = 171	Caregiver-reported child behaviour problems at postintervention (focal child) Caregiver-reported child behaviour problems at postintervention (focal sibling) Caregiver-reported parental stress associated with behaviour at postintervention (focal child) Caregiver-reported parental stress associated with behaviour at postintervention (focal sibling)
Shuurmans 2017 (Netherlands – RCT)	In residential care with elevated levels of both anxiety and externalizing problems	Videogame Intervention (Dojo)	CAU	Dojo = 18 CAU = 19	Caregiver-reported child behaviour problems at postintervention (focal child) Caregiver-reported child behaviour problems at postintervention (focal sibling) Caregiver-reported parental stress associated with behaviour at postintervention (focal child) Caregiver-reported parental stress associated with behaviour at postintervention (focal sibling)
Sprang 2009 (USA – RCT)	early years foster children with attachment problems (younger than 6)	Attachment and Behavioural Catch-up (ABC)	WL	ABC = 26 WL = 27	Caregiver-reported internalising behaviour score at postintervention Change in caregiver-reported internalising behaviour score from baseline Caregiver-reported externalising behaviour score at postintervention Change in caregiver-reported externalising behaviour score from baseline

Study (country – study design)	LACYP population	Intervention	Comparator	Number of patients who completed study	Outcomes reported (follow up f/u)
					Parenting stress in the caregiver-child relationship mean score at postintervention Change in parenting stress in the caregiver-child relationship mean score from baseline
Suomi 2020 (Australia – RCT)	Looked after children (aged 0 – 14 years)	kContact	CAU	kContact = 100 CAU = 83	Parent reported quality of the child-parent-carer relationship at 9 months
Van Andel 2016 (Netherlands – RCT)	Preschool aged children in foster care	Foster family intervention (training)	CAU	FFI = 65 CAU = 58	parent-child interaction (sensitivity) mean score at 6-months post-baseline parent-child interaction (structuring) mean score at 6-months post-baseline parent-child interaction (non-intrusiveness) mean score at 6-months post-baseline parent-child interaction (responsivity) mean score at 6-months post-baseline parent-child interaction (involvement) mean score at 6-months post-baseline and change in parenting stress over time (stress in role as parent) mean score at 6-months post baseline change in parenting stress over time (stress as a result of child factors) mean score at 6-months post baseline change in parenting stress over time (total stress) mean score at 6-months post baseline
Van Holen 2017 (Belgium – RCT)	Children in new foster care placements with behavioural problems (aged 3-12 years)	Social learning theory-based training (SLT)	CAU	SLT = 30 CAU = 33	Caregiver reported internalising behaviour mean score at postintervention Caregiver reported internalising behaviour mean score at 3-months follow up Caregiver reported externalising behaviour mean score at postintervention Caregiver reported externalising behaviour mean score 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)
					Caregiver reported parental stress mean score at postintervention Caregiver reported parental stress mean score at 3-months follow up
Van Holen 2018 (Belgium – RCT)	Foster-care placements with a long-term perspective (>1 year) and children with behavioural problems (children aged between 6 and 18)	Non-Violent Resistance training (NVR)	CAU	NVR = 31 CAU = 31	Foster-carer reported child behaviour checklist internalising/ externalising scores at 3-months follow up Foster-carer reported parental stress score at 3 months follow up
Van Ryzin 2012 (USA – RCT)	Girls with chronic delinquency referred to out-of-home care (13 – 17 years of age)	MTFC	CAU	MTFC = 81 CAU = 85	Self-reported general delinquency at 24 months follow up Self-reported delinquent peers association at 12 months follow up Number of criminal referrals and number of days in locked settings over 24 months follow up
Westermark 2011 (Sweden – RCT)	Youth with antisocial behaviour referred to MTFC or out-of-home care (mean age 15 years)	MTFC	TAU	MTFC = 20 TAU = 15	Youth-reported internalising/ externalising behaviour at 24 months follow up Youth-reported total problems score at 24 months follow up Carer-reported internalising/ externalising behaviour at 24 months follow up Carer-reported total problems score at 24 months follow up

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1 Qualitative evidence

Table 4: Summary of the qualitative studies contained within this evidence review

Study (country)	Intervention	LACYP population (age)	Setting and context	Type of analysis	Perspectives (n)
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 child welfare, mental health, and juvenile justice.	Semi-structured interviews with thematic analysis. Multiple analysts were used.	Treatment foster care parents (22)
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	Foster carers (9)

Study (country)	Intervention	LACYP population (age)	Setting and context	Type of analysis	Perspectives (n)
				contribute to the sustained impact of training on foster parents' parenting skills and attitudes. Thematic analysis was used with multiple coders.	
Frederico 2017 (Australia)	Treatment Foster Care (the Circle Programme)	"Traumatised" children allocated to the Circle Programme (Treatment Foster Care) (Age not reported)	a Therapeutic Foster Care Program introduced in Victoria, Australia	Case-assessments focus group interviews, and interviews with therapeutic specialists. Focus groups were mixed groups including therapeutic foster carers and generalist foster carers, foster care workers and therapeutic specialists. Thematic analysis was used.	Therapeutic foster carers and generalist foster carers, foster care workers and therapeutic specialists (43)
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)
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)

Study (country)	Intervention	LACYP population (age)	Setting and context	Type of analysis	Perspectives (n)
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,
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)

Study (country)	Intervention	LACYP population (age)	Setting and context	Type of analysis	Perspectives (n)
Rogers 2020 (UK)	Sibling Camp	Sibling looked after young people attending the Camp	Participants in the Camp to Belong programmes for facilitating sibling contact among looked after children in the UK	Semi-structured interviews were conducted with young people who attended the sibling camp programme. Interview schedules covered camp experience and experience of contact. Thematic analysis was used.	Looked after young people (11)

1 See Appendix D for full evidence tables

1 Summary of the evidence

2 Quantitative evidence

3 ***Table 5: Summary GRADE table (Parent Management Training Oregon (PMTO) vs Care***
4 ***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 problem behaviour score, postintervention: assessed using the Social Skills Improvement System (SSIS)	121	**MD -9.40 (-15.00 to -3.80)**	Very Low	Effect favours intervention group but may be less than the MID
Caregiver-reported social skills score, postintervention: assessed using the SSIS	121	**MD 15.10 (7.34 to 22.86)**	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
Caregiver-reported problem behaviour score at 6-months follow up: assessed using the Social Skills Improvement System (SSIS)	918	**MD -2.00 (-3.88 to -0.12)**	Very Low	Effect favours intervention group but is less than the MID
Caregiver-reported problem behaviour score at 12-months follow up: assessed using the Social Skills Improvement System (SSIS)	918	**MD -3.48 (-5.18 to -1.78)**	Very Low	Effect favours intervention group but is less than the MID
Caregiver-reported social skills score, at 6-months: assessed using the SSIS	918	**MD 3.80 (0.94 to 6.66)**	Very Low	Effect favours intervention group but is less than the MID
Caregiver-reported social skills score, at 12-months: assessed using the SSIS	918	**MD 5.25 (2.31 to 8.19)**	Very Low	Effect favours intervention group

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect
				but is less than the MID
Foster carer-reported child behaviour score at post-intervention: assessed using the Child Behaviour Checklist (CBCL)	88	MD -2.37 (-7.30 to 2.56)	Very Low	Could not differentiate effect
Foster carer-reported child behaviour score at 4-month follow up: assessed using the Child Behaviour Checklist (CBCL)	88	MD -0.89 (-5.94 to 4.16)	Very low	Could not differentiate effect
Foster carer-reported externalising problems score at post-intervention: assessed using the Child Behaviour Checklist (CBCL)	88	MD -2.65 (-7.54 to 2.24)	Very low	Could not differentiate effect
Foster carer-reported externalising problems score at 4-month follow up: assessed using the Child Behaviour Checklist (CBCL)	88	MD -1.54 (-6.74 to 3.66)	Very low	Could not differentiate effect
Foster carer-reported internalising problems score at post-intervention: assessed using the Child Behaviour Checklist (CBCL)	88	MD 1.43 (-3.72 to 6.58)	Very Low	Could not differentiate effect
Foster carer-reported internalising problems score at 4-month follow up: assessed using the Child Behaviour Checklist (CBCL)	88	MD 2.69 (-2.72 to 8.10)	Very Low	Could not differentiate effect
Teacher-reported child behaviour total problems score at postintervention: assessed using the Teacher Report Form	88	MD -3.96 (-8.54 to 0.62)	Very Low	Could not differentiate effect
Teacher-reported child behaviour total problems score at 4-months follow up: assessed using the Teacher Report Form	88	MD 0.81 (-3.54 to 5.16)	Very Low	Could not differentiate effect
Teacher-reported externalising problems score at postintervention: assessed using the Teacher Report Form	88	MD -3.73 (-14.09 to 6.63)	Very Low	Could not differentiate effect
Teacher-reported externalising problems score at 4-months follow up: assessed using the Teacher Report Form	88	MD 0.57 (-10.15 to 11.29)	Very Low	Could not differentiate effect
Teacher-reported internalising problems score at postintervention: assessed using the Teacher Report Form	88	MD -0.37 (-5.34 to 4.60)	Very Low	Could not differentiate effect
Teacher-reported internalising problems score at 4-months follow up: assessed using the Teacher Report Form	88	MD 2.75 (-2.06 to 7.56)	Very Low	Could not differentiate effect
Parental stress total scale score at postintervention: assessed using the parenting stress index (PSI)	88	MD -16.32 (-35.40 to 2.76)	Very Low	Could not differentiate effect

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect
Parental stress total scale score at 4-months follow up: assessed using the parenting stress index (PSI)	88	MD -5.70 (-26.59 to 15.19)	Very Low	Could not differentiate effect
Parental stress parent domain score at postintervention: assessed using the parenting stress index (PSI)	88	MD -8.72 (-18.51 to 1.07)	Very Low	Could not differentiate effect
Parental stress parent domain score at 4-months follow up: assessed using the parenting stress index (PSI)	88	MD -3.12 (-14.50 to 8.26)	Very Low	Could not differentiate effect
Parental stress child domain score at postintervention: assessed using the parenting stress index (PSI)	88	MD -4.71 (-15.87 to 6.45)	Very Low	Could not differentiate effect
Parental stress child domain score at 4-months follow up: assessed using the parenting stress index (PSI)	88	MD -2.51 (-13.52 to 8.50)	Very Low	Could not differentiate effect

Table 6: 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]
Experience of a locked setting over 1 year follow up: data excerpted from social case record	46	**OR 0.07 (0.01 to 0.60)**	Very Low	Effect favours intervention group
Experience of a locked setting over 3 years follow up: data excerpted from social case record	46	OR 0.45 (0.13 to 1.59)	Very Low	Could not differentiate effect
Criminal activity over 1 year follow up: data excerpted from social care record (confirmed reports from the police or convictions reported in the case record)	46	OR 0.19 (0.02 to 1.77)	Very Low	Could not differentiate effect
Criminal activity over 3 year follow up: data excerpted from social care record (confirmed reports from the police or convictions reported in the case record)	46	OR 0.27 (0.06 to 1.17)	Very Low	Could not differentiate effect
Violent crime over 1 year follow up: crime towards a person (e.g., assault, rape or robbery) from confirmed police reports or convictions	46	OR 0.07 (0.00 to 1.31)	Very Low	Could not differentiate effect
Violent crime over 3 year follow up: crime towards a person (e.g., assault, rape or robbery) from confirmed police reports or convictions	46	**OR 0.04 (0.00 to 0.67)**	Very Low	Effect favours intervention group
Self-reported internalising behaviour score at 24 months postbaseline: assessed using the youth self-report	35	MD -4.20 (-10.36 to 1.96)	Very Low	Could not differentiate effect
Self-reported externalising behaviour score at 24 months postbaseline: assessed using the youth self-report	35	MD -2.50 (-7.69 to 2.69)	Very Low	Could not differentiate effect

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Minimum 30% reduction in self-reported total problem behaviour score at 24 months postbaseline: assessed using the youth self-report	35	MD -9.30 (-25.13 to 6.53)	Very Low	Could not differentiate effect
Minimum 30% reduction in carer-reported internalising behaviour score at 24 months postbaseline: assessed using the CBCL	35	MD -4.90 (-11.44 to 1.64)	Very Low	Could not differentiate effect
Minimum 30% reduction in carer-reported externalising behaviour score at 24 months postbaseline: : assessed using the CBCL	35	MD -2.20 (-10.14 to 5.74)	Very Low	Could not differentiate effect
Minimum 30% reduction in carer-reported total problem behaviour score at 24 months postbaseline: assessed using the CBCL	35	MD -16.50 (-36.29 to 3.29)	Very Low	Could not differentiate effect
Minimum 30% reduction in self-reported internalising behaviour score at 24 months postbaseline: assessed using the youth self-report	35	OR 1.83 (0.47 to 7.13)	Very Low	Could not differentiate effect
Minimum 30% reduction in self-reported externalising behaviour score at 24 months postbaseline: assessed using the youth self-report	35	**OR 4.67 (1.11 to 19.65)**	Very Low	**Effect favours intervention group but may be less than the MID**
Self-reported total problem behaviour score at 24 months postbaseline: assessed using the youth self-report	35	**OR 6.00 (1.37 to 26.24)**	Very Low	**Effect favours intervention group**
Carer-reported internalising behaviour score at 24 months postbaseline: assessed using the CBCL	35	**OR 6.00 (1.37 to 26.24)**	Very Low	**Effect favours intervention group**
Carer-reported externalising behaviour score at 24 months postbaseline: assessed using the CBCL	35	**OR 6.00 (1.37 to 26.24)**	Very Low	**Effect favours intervention group**
Carer-reported total problem behaviour score at 24 months postbaseline: assessed using the CBCL	35	**OR 6.00 (1.33 to 27.05)**	Very Low	**Effect favours intervention group**

Table 7: 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
Mean criminal referrals index score at 1 year follow up: total number of days a youth had at least one criminal referral between the time of placement and 1 year following exit from placement assessed using electronic referral records collected from the juvenile courts	79	**MD -1.60 (-2.77 to -0.43)**	Very Low	Effect favours intervention group but may be less than the MID

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect
Positive adult-youth relationship score at placement midpoint: derived from a set of four questions relating to how much the youth and caretake "like" each other	79	**MD 0.49 (0.19 to 0.79)**	Very Low	Effect favours intervention group but may be less than the MID
Supervision score at placement midpoint: assessed using a set of questions relating to amount of time spent together and differences in knowledge of behavioural problems	79	**MD 0.55 (0.34 to 0.76)**	Very Low	Effect favours intervention group but may be less than the MID
Deviant peers score at 1 year follow up: assessed using a set of questions regarding to association and influence by deviant peers	79	**MD 1.39 (-1.64 to -1.14)**	Very Low	Effect favours intervention group
Mean self-reported delinquency score at 1 year follow up: assessed using the Elliot Behaviour Checklist protocol	79	**MD -6.02 (-10.18 to -1.86)**	Very Low	Effect favours intervention group but may be less than the MID
Number with no criminal referrals for violent offenses over two years follow up: official records of violent offenses and self-reported violent behaviour	79	OR 2.23 (0.82 to 6.07)	Very Low	Could not differentiate effect
Number with one or more referrals for violent offenses over two years follow up: official records of violent offenses and self-reported violent behaviour	79	OR 0.45 (0.16 to 1.22)	Very Low	Could not differentiate effect
Association between being in the intervention group and number of official violent referrals over 2 years follow up: assessed using electronic referral records collected from the juvenile courts	79	**beta -0.81, p-value: <0.056**	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-reported violence over 2 years follow up: assessed by summing the number of times the participants admitted to perpetrating a list of violent acts	79	**beta -1.11, p-value <0.001**	Very Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Delinquency construct score at 12 months follow up: computed from three indicators assessing behaviour during the prior 12 months: number of criminal referrals, number of days in locked settings, and self-reported delinquency	81	**MD -0.08 (-0.16 to 0.00)**	Very Low	Effect favours intervention group but may be less than the MID
Delinquency construct score at 24 months follow up: computed from three indicators assessing behaviour during the prior 12 months: number of criminal referrals, number of days in locked settings, and self-reported delinquency	81	**MD -0.13 (-0.21 to -0.05)**	Very Low	Effect favours intervention group but may be less than the MID

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect
Association between being in the intervention group and rate of decrease in delinquency construct score over the course of the study: computed from three indicators assessing behaviour during the prior 12 months: number of criminal referrals, number of days in locked settings, and self-reported delinquency	81	**beta coefficient -0.42, p <0.01**	Very Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Log number of criminal referrals at 12 months follow up: collected from state police records and circuit court data	81	**MD -0.10 (-0.20 to -0.00)**	Very Low	Effect favours intervention group but may be less than the MID
Log number of criminal referrals at 24 months follow up: collected from state police records and circuit court data	81	MD -0.09 (-0.19 to 0.01)	Very Low	Could not differentiate
Log number of days in locked settings at 12 months follow up: self-report of total days spent in detention, correctional facilities, jail, or prison	81	**MD -0.20 (-0.36 to -0.04)**	Very Low	Effect favours intervention group but may be less than the MID
Log number of days in locked settings at 24 months follow up: self-report of total days spent in detention, correctional facilities, jail, or prison	81	**MD -0.28 (-0.43 to -0.13)**	Very Low	Effect favours intervention group but may be less than the MID
Log delinquency score at 12 months follow up: Self-reported Elliott General Delinquency Score	81	MD 0.03 (-0.05 to 0.11)	Very Low	Could not differentiate
Log delinquency score at 24 months follow up: Self-reported Elliott General Delinquency Score	81	MD -0.01 (-0.08 to 0.06)	Very Low	Could not differentiate
Caregiver-reported delinquency at 12 months follow up: assessed using the CBCL	81	**MD -5.28 (-9.69 to -0.87)**	Very Low	Effect favours intervention group but may be less than the MID
Caregiver and youth-reported Delinquent Peer Association at the 12-month follow up: assessed using Describing Friends Questionnaire	153	**MD -0.49 (-0.77 to -0.21)**	Very Low	Effect favours intervention group but may be less than the MID
Caregiver and youth-reported Delinquent Peer Association at the 12-month follow up: assessed using CBCL	153	MD -0.17 (-0.55 to 0.21)	Very Low	Could not differentiate
Caregiver and youth-reported Delinquent Peer Association at the 12 month follow up: assessed using Over-Covert Aggression Questionnaire	153	**MD -0.52 (-0.97 to -0.07)**	Very Low	Effect favours intervention group but may be less than the MID
Association between intervention and delinquent peer association at 12 months follow up: construct delinquent peer association score	153	**beta -0.22 p-value <0.01**	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
				if effect size is important)
Number offending at 12 month follow up: 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.	34	OR 2.23 (0.82 to 6.07)	Very Low	Could not differentiate effect
Association between being in the intervention group and self-reported general delinquency at 24 months follow up: assessed using the Elliott General Delinquency Scale	116	Beta -0.12 (-0.43 to 0.19)	Low	No association was observed in favour of the intervention group
Association between being in the intervention group and number of criminal referrals and number of days in locked settings over 24 months follow up: assessed using a construct of self-report of days in locked settings and state police records/court data	116	**Beta -0.37 (-0.68 to -0.06)**	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-reported delinquent peers affiliation at 12 months follow up: assessed using the Describing Friends Questionnaire	116	**Beta -0.34 (-0.61 to -0.07)**	Low	**An association was observed in favour of the intervention group (unable to assess if effect size is important)**

Table 8: Summary GRADE table (Multi-dimensional Treatment Foster Care for pre-schoolers (MTFC-P) vs Routine Foster Care)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Secure behaviour score (mean %) at 3 months follow up: assessed using the Parent Attachment Diary	117	MD 0.01 (-0.11 to 0.13)	Moderate	No meaningful effect
Secure behaviour score (mean %) at 12 months follow up: assessed using the Parent Attachment Diary	117	MD 0.05 (-0.07 to 0.17)	Low	Could not differentiate
Avoidant behaviour score (mean %) at 3 months follow up: assessed using the Parent Attachment Diary	117	MD -0.01 (-0.10 to 0.08)	Moderate	No meaningful effect
Avoidant behaviour score (mean %) at 12 months follow up: assessed using the Parent Attachment Diary	117	**MD -0.10 (-0.19 to -0.01)**	Low	Effect favours intervention group but may be less than the MID
Resistant behaviour score (mean %) at 3 months follow up: assessed using the Parent Attachment Diary	117	MD 0.02 (-0.03 to 0.07)	Low	Could not differentiate

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Resistant behaviour score (mean %) at 12 months follow up: assessed using the Parent Attachment Diary	117	MD 0.00 (-0.04 to 0.04)	Moderate	No meaningful effect
Association between MTFC and change in secure behaviour score over 12 months follow up: assessed using the Parent Attachment Diary	117	**Beta 0.18 (0.02 to 0.34)**	Moderate	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Association between MTFC and change in avoidant behaviour score over 12 months follow up: assessed using the Parent Attachment Diary	117	**Beta -0.13 (-0.25 to -0.01)**	Moderate	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Association between MTFC and change in resistant behaviour score over 12 months follow up: assessed using the Parent Attachment Diary	117	Beta 0.01 (-0.07 to 0.09)	Moderate	No association was observed (unable to assess MID)

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

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Foster parent-reported positive child relationship score by 12 months: assessed using the Child Relationship Development Inventory	87	Beta -2.82, SE 3.20, p=0.382	Moderate	No association was observed (unable to assess MID)
Foster parent-reported Negative Child Relationship Investment Behaviour by 12 months: assessed using the Child Relationship Checklist	87	Beta -4.38, SE 3.92, p=0.268	Moderate	No association was observed (unable to assess MID)
Externalising child behaviour score at 12 months: measured using the Eyberg Child Behaviour Inventory	87	Beta coefficient -8.68, SE 8.80, p=0.328	Moderate	No association was observed (unable to assess MID)

Table 10: 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]
Association between being in the intervention group and reduced behavioural problems score by 12 months: assessed using the PDR	247	**beta -0.23 (-0.38 to -0.09)**	Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Caregiver-reported quality of the relationship between youth and their	88	MD 0.10 (-0.11 to 0.31)	Very Low	Could not differentiate

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
caregivers at 6/12 months follow up: assessed using the Reactive Attachment Disorder Scale				

1 ***Table 11: Summary GRADE table (Fostering Changes Programme vs Wait list (WL))***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Child behaviour problems mean score at three months follow-up: Carer-Defined Problems Scale	108	**MD -15.00 (-25.74 to -4.26)**	Very Low	Effect favours intervention group but may be less than the MID
Change in foster child's attachment relationship with foster carer mean score three months post-randomisation: assessed by The Quality of Attachment Relationships Questionnaire	108	**MD 3, p-value =0.04**	Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Conduct problems score at 3 months postbaseline: assessed using the Strengths and Difficulties Questionnaire (SDQ)	108	MD -0.50 (-1.61 to 0.61)	Very Low	Could not differentiate
Peer-relationships score at 3 months postbaseline: assessed using the Strengths and Difficulties Questionnaire (SDQ)	108	MD -0.50 (-1.61 to 0.61)	Very Low	Could not differentiate
Pro-social score at 3 months postbaseline: assessed using the Strengths and Difficulties Questionnaire (SDQ)	108	MD -0.20 (-1.19 to 0.79)	Low	No meaningful difference

2 ***Table 12: Summary GRADE table (Fostering Changes Programme vs CAU)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Carer-reported conduct problems score assessed using Strength and Difficulties Questionnaire at 3 months	240	MD -0.20 [-0.69, 0.29]	Moderate	Effect favours intervention group
Carer-reported conduct problems score assessed using Strength and Difficulties Questionnaire at 12 months	229	MD 0.40 [-0.12, 0.92]	Moderate	Could not differentiate
Carer-reported hyperactivity score assessed using Strength and Difficulties Questionnaire at 3 months	240	**MD -0.60 [-1.13, -0.07]**	Moderate	Effect favours intervention group
Carer-reported hyperactivity score assessed using Strength and Difficulties Questionnaire at 12 months	229	MD -0.20 [-0.78, 0.38]	Moderate	Could not differentiate
Carer-reported peer problems score assessed using Strength and Difficulties Questionnaire at 3 months	240	**MD -0.70 [-1.20, -0.20]**	Moderate	Effect favours intervention group

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Carer-reported peer problems score assessed using Strength and Difficulties Questionnaire at 12 months	229	MD -0.40 [-0.91, 0.11]	Moderate	Could not differentiate
Carer-reported prosocial score assessed using Strength and Difficulties Questionnaire at 3 months	240	MD 0.30 [-0.18, 0.78]	Moderate	Could not differentiate
Carer-reported prosocial score assessed using Strength and Difficulties Questionnaire at 12 months	229	MD 0.10 [-0.35, 0.55]	Moderate	Could not differentiate
Carer-reported quality of attachment assessed using the Quality of Attachment Questionnaire at 3 months	240	MD 1.50 [-0.82, 3.82]	Moderate	Could not differentiate
Carer-reported quality of attachment assessed using the Quality of Attachment Questionnaire at 12 months	229	MD 1.40 [-0.72, 3.52]	Moderate	Could not differentiate
Carer-reported problem behaviours score (score above 70) assessed using the Carer Defined Problems Score at 12 months	132	OR 0.71 [0.33, 1.54]	Very Low	Could not differentiate

1 ***Table 13: Summary GRADE table (Video-feedback Intervention vs phone call control)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Maternal sensitivity score postintervention: assessed using the Maternal Behaviour Q-Set	13	MD 0.09 (-0.13 to 0.31)	Very Low	Could not differentiate

2 ***Table 14: Summary GRADE table (KEEP foster parent training (KEEP) vs CAU***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Carer-reported mean number of child problem behaviours per day, 5 months postbaseline: assessed using the Parent Daily Report (PDR)	700	**MD -1.07 (-1.67 to -0.47)**	Very Low	Effect favours intervention group but is less than the MID
Association between the intervention group and carer-reported mean number of child problem behaviours per day, 5 months postbaseline: assessed using the PDR	700	**beta coefficient -0.14, p-value <0.05**[3]	Very Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Caregiver-reported child behaviour problems at postintervention (focal child): measured using the parent daily report (PDR)	354	MD -0.07 (-0.85 to 0.71)	Very Low	No meaningful difference
Association between being in the intervention group and change in caregiver-reported child behaviour problems at postintervention (focal child): measured using the parent daily report (PDR)	354	**Beta=−0.66, p=0.005**	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)
Caregiver-reported child behaviour problems at postintervention (focal sibling): measured using the parent daily report (PDR)	354	MD -0.20 (-0.95 to 0.55)	Very Low	No meaningful difference
Association between being in the intervention group and change in caregiver-reported child behaviour problems at postintervention (focal sibling): measured using the parent daily report (PDR)	354	Beta=−0.41, p=0.055	Very Low	No association was observed (unable to assess MID)
Caregiver-reported parental stress associated with behaviour at postintervention (focal child): measured using the parent daily report (PDR)	354	MD -0.21 (-1.61 to 1.19)	Very Low	No meaningful difference
Association between being in the intervention group and change in caregiver-reported parental stress associated with behaviour at postintervention (focal child): measured using the parent daily report (PDR)	354	**Beta=−1.84, p<0.001**	Very Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Caregiver-reported parental stress associated with behaviour at postintervention (focal sibling): measured using the parent daily report (PDR)	354	MD -0.56 (-1.97, 0.85)	Very Low	No meaningful difference
Association between being in the intervention group and change in caregiver-reported parental stress associated with behaviour at postintervention (focal sibling): measured using the parent daily report (PDR)	354	**beta=−0.98, p<0.001**	Very Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Internalising behaviour problems at 4 months: assessed using the Child Behaviour Checklist	310	MD -1.30 [-3.82, 1.22] **(change in score P=0.031)**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Change in those in clinical group for Internalising behaviour problems at 4 months: assessed using the Child Behaviour Checklist	310	OR 1.52, p=0.112	Very low	No association was observed (unable to assess MID)
Anxiety/depression subscale at 4 months: assessed using the Child Behaviour Checklist	310	MD -1.09 [-2.74, 0.56] **(change in score p=0.008)**	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)
Change in those in clinical group for anxiety/depression subscale at 4 months: assessed using the Child Behaviour Checklist	310	OR 2.10, p=0.270	Very low	No association was observed (unable to assess MID)
Withdrawn subscale at 4 months: assessed using the Child Behaviour Checklist	310	MD -1.30 [-3.00, 0.40] (change in score p = 0.105)	Very low	No association was observed (unable to assess MID)
Change in those in clinical group for withdrawn subscale at 4 months: assessed using the Child Behaviour Checklist	310	OR 2.18, p=0.104	Very low	No association was observed (unable to assess MID)
Somatic complaints subscale at 4 months: assessed using the Child Behaviour Checklist	310	MD 0.46 [-0.82, 1.74] (change in score p=0.233)	Very low	No association was observed (unable to assess MID)
Change in those in clinical group for somatic complaints subscale at 4 months: assessed using the Child Behaviour Checklist	310	OR 1.33, p=0.260	Very low	No association was observed (unable to assess MID)
Externalising behaviour problems (broadband) at 4 months: assessed using the Child Behaviour Checklist	310	MD -0.65 [-3.33, 2.03] (change in score p=0.126)	Very low	No association was observed (unable to assess MID)
Change in those in a clinical group for externalising behaviour problems (broadband) at 4 months: assessed using the Child Behaviour Checklist	310	OR 1.28, p=0.475	Very low	No association was observed (unable to assess MID)
Aggression subscale at 4 months: assessed using the Child Behaviour Checklist	310	MD -0.10 [-1.88, 1.68] (change in score p=0.563)	Very low	No association was observed (unable to assess MID)
Change in those in clinical group for aggression subscale at 4 months: assessed using the Child Behaviour Checklist	310	OR 1.07, p=0.728	Very low	No association was observed (unable to assess MID)
Rule-breaking subscale at 4 months: assessed using the Child Behaviour Checklist	310	MD 0.48 [-1.60, 2.56] (change in score p=0.392)	Very low	No association was observed (unable to assess MID)
Change in those in clinical group for rule-breaking subscale at 4 months: assessed using the Child Behaviour Checklist	310	OR 1.23, p=0.547	Very low	No association was observed (unable to assess MID)

1 ***Table 15: Summary GRADE table (Incredible Years vs Wait List control)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Behaviour Intensity score at 6-month follow up (Eyberg Child Behavior Inventory)	46	MD 10.08 (-10.55 to 30.71)	Very Low	Could not differentiate an effect
Hyperactivity score at 6-month follow up (SDQ)	46	MD -0.60 (-2.23 to 1.03)	Very Low	Could not differentiate an effect
Total behavioural problems score postintervention: assessed using the CBCL	33	MD 0.60 (-8.46 to 9.66)	Very Low	Could not differentiate
Change in total behavioural problems score postintervention: assessed using the CBCL	33	MD 1.50 (-3.86 to 6.86)	Very Low	Could not differentiate
Externalising problems score postintervention: assessed using the CBCL	33	MD -1.20 (-9.67 to 7.27)	Very Low	Could not differentiate
Change in externalising problems score postintervention: assessed using the CBCL	33	MD -0.80 (-6.49 to 4.89)	Very Low	Could not differentiate
Internalising problems score postintervention: assessed using the CBCL	33	MD 0.70 (-7.29 to 8.69)	Very Low	Could not differentiate
Change in internalising problems score postintervention: assessed using the CBCL	33	MD 2.30 (-4.10 to 8.70)	Very Low	Could not differentiate
Parenting stress score postintervention: assessed using the Parenting Stress Index (PSI)	33	MD 1.20 (-9.13 to 11.53)	Very Low	Could not differentiate
Change in parenting stress score postintervention: assessed using the Parenting Stress Index (PSI)	33	MD -2.50 (-14.61 to 9.61)	Very Low	Could not differentiate
Parent distress score postintervention: assessed using the Parenting Stress Index (PSI)	33	MD 1.10 (-2.84 to 5.04)	Very Low	Could not differentiate
Change in parent distress score postintervention: assessed using the Parenting Stress Index (PSI)	33	MD -1.20 (-6.64 to 4.24)	Very Low	Could not differentiate
Parent-child dysfunctional interaction score postintervention: assessed using the Parenting Stress Index (PSI)	33	MD 0.70 (-2.36 to 3.76)	Very Low	Could not differentiate
Change in parent-child dysfunctional interaction score postintervention: assessed using the Parenting Stress Index (PSI)	33	MD -0.70 (-3.54 to 2.14)	Very Low	Could not differentiate
Difficult child score postintervention: assessed using the Parenting Stress Index (PSI)	33	MD -0.50 (-6.61 to 5.61)	Very Low	Could not differentiate
Change in difficult child score postintervention: assessed using the Parenting Stress Index (PSI)	33	MD -0.60 (-6.33 to 5.13)	Very Low	Could not differentiate

Table 16: Summary GRADE table (Incredible Years parent training vs CAU)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Parent and foster parent combined mean externalising score at postintervention: assessed using the CBCL	128	MD -0.96 (-4.03 to 2.11)	Very Low	No meaningful effect
Parent and foster parent combined mean externalising score at 3-months follow up: assessed using the CBCL	128	MD -3.35 (-7.12 to 0.43)	Very Low	Could not differentiate
Parent and foster parent combined mean externalising and conduct problems score at postintervention: assessed using the Eyberg Child Behavior Inventory (ECBI)	128	MD -1.75 (-4.62 to 1.11)	Very Low	Could not differentiate
Parent and foster parent combined mean externalising and conduct problems score at 3-months follow up: assessed using the Eyberg Child Behavior Inventory (ECBI)	128	MD -3.10 (-6.72 to 0.52)	Very Low	Could not differentiate
Teacher-reported mean disruptive classroom behaviour score at postintervention: assessed using the Sutter–Eyberg Student Behaviour Inventory—Revised (SESBI–R)	128	MD 0.50 (-5.03 to 6.03)	Very Low	No meaningful effect
Teacher-reported mean disruptive classroom behaviour score at 3-months follow up: assessed using the Sutter–Eyberg Student Behaviour Inventory—Revised (SESBI–R) 1	128	MD 3.63 (-5.72 to 12.98)	Very Low	No meaningful effect
Foster carer reported physical aggression at post-intervention: assessed using the CBCL Aggression subscale	94	MD -0.08 [-1.36, 1.20]	Moderate	No meaningful effect
Foster carer reported physical aggression at 3-months follow up: assessed using the CBCL Aggression subscale	94	**MD 1.14 [0.08, 2.20]**	Low	Effect favours control group but may be less than the MID
Association between being in the intervention group and foster carer reported physical aggression at 3-months follow up: assessed using the CBCL Aggression subscale, adjusted for baseline score, gender, ethnicity, ADHD diagnosis, and study site	94	Estimate 0.07; SE 0.39; P=>0.05	Moderate	No statistically significant association was observed
Association between being in the intervention group and change in foster carer reported physical aggression from baseline to 3-months follow up: assessed using the CBCL Aggression subscale, adjusted for baseline score, gender, ethnicity, ADHD diagnosis, and study site	94	**Estimate 1.41; SE 0.50; P=<0.01**	Moderate	An association was observed in favour of the control group (unable to assess if effect size is important)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Foster carer reported good self-control at post-intervention: assessed using a 51-item self-control construct (Wills et al. 2007) (higher scores favour intervention group)	94	MD -0.17 [-0.52, 0.18]	Moderate	No meaningful effect
Foster carer reported good self-control at 3-months follow up: assessed using a 51-item self-control construct (Wills et al. 2007)	94	**MD -0.45 [-0.80, -0.10]**	Moderate	Effect favours control group
Association between being in the intervention group and foster carer reported Good self-control at 3-months follow up: assessed using a 51-item self-control construct, adjusted for baseline score, gender, ethnicity, ADHD diagnosis, and study site.	94	**Estimate -0.27; SE 0.12; P=<0.05**	Moderate	An association was observed in favour of the control group (unable to assess if effect size is important)
Association between being in the intervention group and change in foster carer reported Good self-control from baseline to 3-months follow up: assessed using a 51-item self-control construct adjusted for baseline score, gender, ethnicity, ADHD diagnosis, and study site	94	**Estimate -0.33; SE 0.15; p=<0.05**	Moderate	An association was observed in favour of the control group (unable to assess if effect size is important)
Foster carer reported poor self-control at post-intervention: assessed using a 51-item self-control construct	94	**MD 0.51 [0.12, 0.90]**	Moderate	Effect favours control group
Foster carer reported poor self-control at 3-months follow up: assessed using a 51-item self-control construct	94	**MD 0.40 [0.00, 0.80]**	Moderate	Effect favours control group
Association between being in the intervention group and foster carer reported poor self-control at 3-months follow up: assessed using a 51-item self-control construct adjusted for baseline score, gender, ethnicity, ADHD diagnosis, and study site	94	Estimate 0.10; SE 0.14; p=>0.05	Moderate	No statistically significant association was observed
Association between being in the intervention group and change in foster carer reported poor self-control from baseline to 3-months follow up: assessed using a 51-item self-control construct adjusted for baseline score, gender, ethnicity, ADHD diagnosis, and study site	94	Estimate -0.04; SE 0.16; p=>0.05	Moderate	No statistically significant association was observed
Teacher reported physical aggression at post-intervention: assessed using the SESBI–R	94	MD -1.05 [-5.87, 3.77]	Moderate	No meaningful effect
Teacher reported physical aggression at 3-months follow up: assessed using the SESBI–R	94	MD -1.85 [-6.47, 2.77]	Low	Unable to differentiate effect

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Teacher reported good self-control at post-intervention: assessed using a 51-item self-control construct	94	MD -0.01 [-0.36, 0.34]	Moderate	No meaningful effect
Teacher reported good self-control at 3-months follow up: assessed using a 51-item self-control construct	94	MD 0.08 [-0.26, 0.42]	Moderate	No meaningful effect
Teacher reported poor self-control at post-intervention: assessed using a 51-item self-control construct	94	MD 0.01 [-0.40, 0.42]	Moderate	No meaningful effect
Teacher reported poor self-control at 3-months follow up: assessed using a 51-item self-control construct	94	MD -0.13 [-0.52, 0.26]	Moderate	No meaningful effect

Table 17: 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]
Association between ABC and change in maternal sensitivity score from pre-postintervention: video-recorded 10-minute interaction assessed by coders on a 5-point likert scale.	96	**beta coefficient 0.09 (0.01 to 0.17)**	Very Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Avoidant behaviour score, mean, postintervention: assessed using the Parent Attachment Diary	46	MD -0.23 (-0.42 to -0.04)	Very Low	Could not differentiate
Secure behaviour score, mean, postintervention: assessed using the Parent Attachment Diary	46	MD 0.12 (-0.13 to 0.37)	Very Low	Could not differentiate
Problem behaviour score at 1 month postintervention, mean score: assessed using the Parent daily report	60	MD -0.02 [-0.10, 0.06]	Very low	Could not differentiate

Table 18: Summary GRADE table (Attachment and Biobehavioural Catch-up (ABC) vs Wait List Control))

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Caregiver-reported internalising behaviour score at postintervention: assessed using the CBCL	53	**MD -18.97 (-25.27 to -12.67)**	Very Low	Effect favours intervention group
Change in caregiver-reported internalising behaviour score from baseline: assessed using the CBCL	53	**MD -14.89, p value=0.01**	Very Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Caregiver-reported externalising behaviour score at postintervention: assessed using the CBCL	53	**MD -19.95 (-25.84 to -14.06)**	Very Low	Effect favours intervention group
Change in caregiver-reported externalising behaviour score from baseline: assessed using the CBCL	53	**MD -13.85, p value=0.05**	Very Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Parenting stress in the caregiver-child relationship mean score at postintervention: assessed using the PSI	53	**MD -89.58 (-103.30 to -75.86)**	Very Low	Effect favours intervention group
Change in parenting stress in the caregiver-child relationship mean score from baseline: assessed using the PSI	53	**MD -81.21, p-value = 0.01**	Very Low	An association was observed in favour of the intervention group (unable to assess if effect size is important)

1 ***Table 19: Summary GRADE table (Natural mentoring intervention vs CAU)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Self-reported connection to people in school, mean score, postintervention: assessed using Goodenow's Psychological Sense of School Membership	17	MD 0.20 (-0.68 to 1.08)	Very Low	Could not differentiate
Self-reported youth/natural mentor relationship quality, mean score, postintervention: assessed using the Youth Mentoring Survey	17	MD 0.30 (-0.05 to 0.65)	Very Low	Could not differentiate
Self-reported youth/natural mentor relationship quality, mean score, postintervention: assessed using the Relational Health Indices	17	MD 0.30 (-0.22 to 0.82)	Very Low	Could not differentiate

2 ***Table 20: Summary GRADE table (Staying Connected With Your Teen vs Wait List***
3 ***Control)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Teen reported deviant attitudes score mean score at 3-months follow up: assessed using an author derived scale	60	MD -0.15 (-0.38 to 0.08)	Very Low	Could not differentiate
Teen-reported family conflict score mean score at 3-months follow up: assessed using the Moos Family Environment Scale	60	MD -0.10 (-0.25 to 0.05)	Very Low	Could not differentiate

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Caregiver-reported family conflict score mean score at 3-months follow up: assessed using the Moos Family Environment Scale	60	MD 0.08 (-0.06 to 0.22)	Very Low	Could not differentiate
Caregiver-reported positive involvement score mean score at 3-months follow up: assessed using an author developed scale	60	MD 0.17 (-0.15 to 0.49)	Very Low	Could not differentiate
Teen-reported bonding/attachment mean score at 3-months follow up: assessed using the modified version of the Inventory of Parent and Peer Attachment	60	**MD 0.40 (0.01 to 0.79)**	Very Low	Effect favours intervention group but may be less than the MID

1 ***Table 21: Summary GRADE table (Life Story intervention vs Wait List Control)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Foster parent-reported mean internalising problem score at postintervention: assessed using the CBCL	15	MD 4.00 (-5.07 to 13.07)	Very Low	Could not differentiate
Foster parent-reported mean externalising problem score at postintervention: assessed using the CBCL	15	MD -7.00 (-16.07 to 2.07)	Very Low	Could not differentiate
Foster parent-reported mean total problem behaviour score at postintervention: assessed using the CBCL	15	MD -2.00 (-12.29 to 8.29)	Very Low	Could not differentiate

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3 ***Table 22: Summary GRADE table (Middle School Success intervention vs CAU)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Association between being in the intervention group and foster parent and girl reported internalising problems at 6 months: assessed by Parent Daily Report Checklist	100	**β -0.28 P<0.01**	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 foster parent and girl reported externalising problems at 6 months: assessed by Parent Daily Report Checklist	100	**β -0.21 P<0.01**	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 foster parent and girl reported prosocial behaviour at 6	100	β 0.15 P>0.05	Very Low	No significant association was

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
months: assessed by Parent Daily Report Checklist				observed (unable to assess MID)
Prosocial behaviour score at 6/12 months follow up: assessed by a subscale from the Parent Daily Report Checklist	100	**MD 0.06 (0.01 to 0.11)**	Very Low	Effect favours intervention group but may be less than the MID
Caregiver-reported Internalising/externalising symptoms score at 12/24 months follow up: assessed by the Achenbach System of Empirically Based Assessment	100	MD 0.27 (-3.03 to 3.57)		No meaningful difference
Delinquent behaviour score at 3 years follow up: assessed using the Self-Report Delinquency Scale	100	MD -0.65 (-1.43 to 0.13)	Very Low	Could not differentiate
Association with delinquent peers score at 3 years follow up: assessed by a modified version of the general delinquency scale from the Self-Report Delinquency Scale	100	MD -0.34 (-0.71 to 0.03)	Very Low	Could not differentiate

Table 23: Summary GRADE table (Supporting Siblings in Foster Care vs Foster Care as Usual)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Association between being in the intervention group and sibling relationship quality mean score at 18 months: assessed using the multi-agent construct of sibling relationship quality (MAC-SRQ)	328	**beta coefficient 0.275 (0.067 to 0.483)[1]**	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 foster parent-reported mean externalising problem score at 18 months: assessed using the sibling relationship questionnaire (SRQ)	328	**beta coefficient 0.275 (0.067 to 0.483)[1]**	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 sibling interaction quality at 18 months: assessed using the sibling interaction quality (SIQ) score	328	**beta coefficient 0.275 (0.067 to 0.483)[1]**	Moderate	An association was observed in favour of the intervention group (unable to assess if effect size is important)

1 ***Table 24: Summary GRADE table (Family Finding Intervention vs CAU)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Number achieving relational permanency over 3-year observation period: assessed using a constructed variable based on qualitative data extracted from case records	253	**OR 2.28 (1.33 to 3.94**	Very low	Effect favours intervention group
Association between being in intervention group and relational permanency over 3-year observation period: assessed using a constructed variable based on qualitative data extracted from case records	253	**Beta coefficient 0.87 (0.26 to 1.48)[1]**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)

2 ***Table 25: Summary GRADE table (Head Start vs CAU)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Association between being in the intervention group and teacher-rated teacher-child relationship at 1 year: assessed by student-teacher relationship scale	253	**β 0.30 (0.12 to 0.48)**	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 teacher/caregiver-reported behaviour problems at 1 year: assessed by Achenbach Child Behaviour Checklist/Adjustment scales for Preschool interventions	253	**β -0.18 (-0.36 to 0.00)**	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 child-teacher relationship at 5 - 6 years of age: assessed by the modified Robert Pianta scale	162	β -0.30 (-1.01 to 0.41)	Very low	No significant association was observed (unable to assess MID)
Association between being in the intervention group and teacher-rated aggressive score at 5 - 6 years of age: assessed by Adjustment Scales for Preschool Intervention	162	β -1.57 (-1.41 to 4.55)	Very low	No significant association was observed (unable to assess MID)
Association between being in the intervention group and teacher-rated hyperactive score at 5 - 6 years of age: assessed by Adjustment Scales for Preschool Intervention	162	**β -3.28 (-6.26 to -0.30)**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)

3

1 ***Table 26: Summary GRADE table (Promoting Sibling Bonds vs Foster Care as Usual)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Association between being in the intervention groups and observer-rated sibling interaction quality (positive) mean score at postintervention: assessed using the Sibling Interaction Quality Scale	22	**Beta 0.324 (0.212 to 0.436)**	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 groups and observer-rated sibling interaction quality (negative) mean score at postintervention: assessed using the Sibling Interaction Quality Scale	22	**Beta 0.058 (0.09 to 1.17)**	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 groups and observer-rated sibling interaction quality (conflict-floor puzzle) mean score at postintervention: assessed using the Sibling Interaction Quality Scale	22	**Beta −1.126 (-1.95 to -0.303)**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Foster parent-reported sibling aggression (older sibling- verbal) mean score at postintervention: assessed using the Sibling Aggression Scale	22	MD -0.69 (-1.94 to 0.56)	Very low	Could not differentiate
Foster parent-reported sibling aggression (older sibling- physical) mean score at postintervention: assessed using the Sibling Aggression Scale	22	MD -0.65 (-1.91 to 0.61)	Very low	Could not differentiate
Association between being in the intervention groups and foster parent-reported sibling aggression (older sibling- physical) mean score at postintervention: assessed using the Sibling Aggression Scale	22	**Beta −1.391 (-2.473 to -0.309)**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Foster parent-reported sibling aggression (younger sibling- verbal) mean score at postintervention: assessed using the Sibling Aggression Scale	22	MD -0.39 (-1.72 to 0.94)	Very low	Could not differentiate
Foster parent-reported sibling aggression (younger sibling- physical) mean score at postintervention: assessed using the Sibling Aggression Scale	22	MD -0.63 (-0.231 to 1.05)	Very low	Could not differentiate

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Table 27: Summary GRADE table (CBT-informed Parent Training programme vs waitlist control)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Carer-reported proportion of behaviours found challenging at postintervention: assessed using an author defined index: summing the number of behaviours reported as difficult and challenging by each participant and dividing this number by twenty-five (total number of behaviours that could be listed).	117	mean difference 0.00, p value >0.05	Very low	No significant association was observed (unable to assess MID)
Carer-reported proportion of behaviours found challenging at 6-months follow up: assessed using an author defined index: summing the number of behaviours reported as difficult and challenging by each participant and dividing this number by twenty-five (total number of behaviours that could be listed).	117	mean difference 0.00, p value >0.05	Very low	No significant association was observed (unable to assess MID)

Table 28: Summary GRADE table (Extended Parent-Child Interaction Therapy vs Waitlist control)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Caregiver reported parenting stress (total stress scale) mean score at 8-weeks postbaseline: assessed using the PSI-SF	129	MD -3.25 (-12.40 to 5.89)	Low	Could not differentiate
Caregiver reported parenting stress (total stress scale) mean score at 14-weeks postbaseline: assessed using the PSI-SF	129	MD -5.22 (-14.46 to 4.02)	Low	Could not differentiate
Caregiver reported parenting stress (parental distress subscale) mean score at 8-weeks postbaseline: assessed using the PSI-SF	129	MD -0.82 (-4.32 to 2.68)	Low	Could not differentiate
Caregiver reported parenting stress (parental distress subscale) mean score at 14-weeks postbaseline: assessed using the PSI-SF	129	MD -0.04 (-3.56 to 3.49)	Moderate	No meaningful difference
Caregiver reported parenting stress (Parent-child Dysfunctional Interaction subscale) mean score at 8-weeks postbaseline: assessed using the PSI-SF	129	MD -2.68 (-6.03 to 0.67)	Low	Could not differentiate
Caregiver reported parenting stress (Parent-child Dysfunctional Interaction subscale) mean score at 14-weeks postbaseline: assessed using the PSI-SF	129	MD -2.95 (-6.36 to 0.46)	Low	Could not differentiate
Caregiver reported parenting stress (Difficult child subscale) mean score at	129	MD 0.46 (-3.90 to 4.82)	Moderate	No meaningful difference

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
8-weeks postbaseline: assessed using the PSI-SF				
Caregiver reported parenting stress (Difficult child subscale) mean score at 14-weeks postbaseline: assessed using the PSI-SF	129	MD -2.49 (-6.99 to 2.01)	Low	Could not differentiate

Table 29: Summary GRADE table (Brief Parent-Child Interaction Therapy vs Waitlist control)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Caregiver reported parenting stress (total stress scale) mean score at 8-weeks postbaseline: assessed using the PSI-SF	129	MD -7.41 (-15.75 to 0.93)	Low	Could not differentiate
Caregiver reported parenting stress (total stress scale) mean score at 14-weeks postbaseline: assessed using the PSI-SF	129	MD -3.16 (-11.88 to 5.56)	Low	Could not differentiate
Caregiver reported parenting stress (parental distress subscale) mean score at 8-weeks postbaseline: assessed using the PSI-SF	129	MD 0.37 (-2.82 to 3.56)	Moderate	No meaningful difference
Caregiver reported parenting stress (parental distress subscale) mean score at 14-weeks postbaseline: assessed using the PSI-SF	129	MD 1.60 (-1.64 to 4.84)	Low	Could not differentiate
Caregiver reported parenting stress (Parent-child Dysfunctional Interaction subscale) mean score at 8-weeks postbaseline: assessed using the PSI-SF	129	**MD -4.05 (-7.11 to -0.99)**	Low	Effect favours intervention group but may be less than the MID
Caregiver reported parenting stress (Parent-child Dysfunctional Interaction subscale) mean score at 14-weeks postbaseline: assessed using the PSI-SF	129	MD -2.08 (-5.24 to 1.08)	Low	Could not differentiate
Caregiver reported parenting stress (Difficult child subscale) mean score at 8-weeks postbaseline: assessed using the PSI-SF	129	MD -3.78 (-7.77 to 0.21)	Low	Could not differentiate
Caregiver reported parenting stress (Difficult child subscale) mean score at 14-weeks postbaseline: assessed using the PSI-SF	129	MD -2.88 (-7.04 to 1.28)	Low	Could not differentiate

Table 30: Summary GRADE table (Extended Parent-Child Interaction Therapy vs Waitlist control)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Child behaviour mean score (intensity scale) at 8-weeks assessed using the Eyberg Child Behaviour Inventory	52	MD -14.9 (-35.19 to 5.39)	Very Low	Could not differentiate
Child behaviour mean score (intensity scale) at 14-weeks assessed using the Eyberg Child Behaviour Inventory	52	MD -15.80 (-37.01 to 5.41)	Very Low	Could not differentiate
Child behaviour mean score (problem scale) at 8-weeks assessed using the Eyberg Child Behaviour Inventory	52	**MD -9.40 (14.26 to 4.54)**	Very Low	Effect favours intervention group but may be less than the MID
Child behaviour mean score (problem scale) at 14-weeks assessed using the Eyberg Child Behaviour Inventory	52	**MD -8.90 (-13.85 to -3.95)**	Very Low	Effect favours intervention group but may be less than the MID
Child behaviour mean score (externalising score) at 8-weeks: assessed using the CBCL	52	MD -2.20 (-8.52 to 4.11)	Very Low	Could not differentiate
Child behaviour mean score (externalising score) at 14-weeks: assessed using the CBCL	52	MD -5.60 (-12.16 to 0.96)	Very Low	Could not differentiate
Child behaviour mean score (internalising score) at 8-weeks: assessed using the CBCL	52	MD 3.70 (-3.04 to 10.4)	Very Low	Could not differentiate
Child behaviour mean score (internalising score) at 14-weeks: assessed using the CBCL	52	MD -2.90 (-9.89 to 4.09)	Very Low	Could not differentiate

Table 31: Summary GRADE table (Brief Parent-Child Interaction Therapy vs Waitlist control)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Child behaviour mean score (intensity scale) at 8-weeks assessed using the Eyberg Child Behaviour Inventory	72	**MD -20.70 (-37.09 to -4.30)**	Very Low	Effect favours intervention group but may be less than the MID
Child behaviour mean score (intensity scale) at 14-weeks assessed using the Eyberg Child Behaviour Inventory	72	MD -7.40 (-24.54 to 9.74)	Very Low	Could not differentiate
Child behaviour mean score (problem scale) at 8-weeks assessed using the Eyberg Child Behaviour Inventory	72	**MD -8.30 (-12.27 to -4.33)**	Very Low	Effect favours intervention group but may be less than the MID
Child behaviour mean score (problem scale) at 14-weeks assessed using the Eyberg Child Behaviour Inventory	72	MD -3.70 (-7.69 to 0.29)	Very Low	Could not differentiate
Child behaviour mean score (externalising score) at 8-weeks: assessed using the CBCL	72	MD -4.80 (-9.81 to 0.21)	Very Low	Could not differentiate

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Child behaviour mean score (externalising score) at 14-weeks: assessed using the CBCL	72	MD -2.40 (-7.54 to 2.74)	Very Low	Could not differentiate
Child behaviour mean score (internalising score) at 8-weeks: assessed using the CBCL	72	MD -4.60 (-9.94 to 0.74)	Very Low	Could not differentiate
Child behaviour mean score (internalising score) at 14-weeks: assessed using the CBCL	72	MD -3.20 (-8.68 to 2.28)	Very Low	Could not differentiate

1 ***Table 32: Summary GRADE table (Peer Mentoring Intervention vs Care as Usual)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Number with self-reported secure attachment style at 12 month follow up: assessed using the Attachment Style Questionnaire	19	OR 1.71 (0.23 to 12.89)	Very Low	Could not differentiate
Number with self-reported fearful attachment style at 12 month follow up: assessed using the Attachment Style Questionnaire	19	OR 0.63 (0.09 to 4.40)	Very Low	Could not differentiate
Number with self-reported dismissing attachment style at 12 month follow up: assessed using the Attachment Style Questionnaire	19	OR 4.00 (0.35 to 45.38)	Very Low	Could not differentiate
Number who self-reported that they were “unlikely, or more than unlikely, to seek help from no one for a personal or emotional problem” at 12 months follow up	19	OR 0.64 (0.05 to 8.62)	Very Low	Could not differentiate
Number who self-reported that they were “unable to trust anyone” at 12 months follow up	19	OR 0.83 (0.13 to 5.17)	Very Low	Could not differentiate
Number in contact with the police in the last year	19	OR 10.20 (0.47 to 222.45)	Very Low	Could not differentiate
Number cautioned/convicted in the last year	19	OR 7.00 (0.31 to 157.26)	Very Low	Could not differentiate
Number in contact with the Youth Offending Team in the last year	19	OR 4.47 (0.19 to 106.96)	Very Low	Could not differentiate

2 ***Table 33: Summary GRADE table (Foster Carer Training vs Care as Usual)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Reactive attachment mean score at postintervention: assessed using the Reactive Attachment Disorder Scale	100	**MD 4.00 (1.26 to 6.74)**	Moderate	Effect favours intervention group but may be less than the MID
Reactive attachment mean score at postintervention (adjusted): assessed	100	MD 0.53 (-1.6 to 2.6)	High	No significant association was

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
using the Reactive Attachment Disorder Scale				observed (unable to assess MID)
Reactive attachment mean score at 9-month follow up: assessed using the Reactive Attachment Disorder Scale	151	MD 3.00 (0.08 to 5.92)	Moderate	Could not differentiate
Reactive attachment mean score at 9-month follow up (adjusted): assessed using the Reactive Attachment Disorder Scale	151	MD -1.2 (-3.5 to 1.1)	High	No significant association was observed (unable to assess MID)

1 ***Table 34: Summary GRADE table (Child-Directed Interaction Training vs Wait list control)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Caregiver-reported child-parent relationship mean score at postintervention: assessed using the Child-parent Relationship Scale	15	MD 5.57 (0.98 to 10.16)	Very low	Could not differentiate
Caregiver-reported child externalising behaviour mean score at postintervention: assessed using the CBCL	15	**MD -9.72 (-19.23 to -0.21)**	Very low	Effect favours intervention group but may be less than the MID
Caregiver-reported child internalising behaviour mean score at postintervention: assessed using the CBCL	15	MD -2.28 (-13.19 to 8.63)	Very low	Could not differentiate

2 ***Table 35: Summary GRADE table (Promoting First Relationships vs Early Education***
3 ***Support)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Caregiver-reported social competence score postintervention: assessed using the Brief Infant Toddler Social and Emotional Assessment	210	MD 0.00 (-0.86 to 0.86)	Low	No meaningful difference
Caregiver-reported social competence score 6-months follow up: assessed using the Brief Infant Toddler Social and Emotional Assessment	210	MD -0.41 (-1.23 to 0.41)	Low	No meaningful difference
Caregiver-reported problem behaviour score postintervention: assessed using the Brief Infant Toddler Social and Emotional Assessment	210	MD 0.09 (-1.61 to 1.79)	Low	No meaningful difference
Caregiver-reported problem behaviour score 6-months follow up: assessed using the Brief Infant Toddler Social and Emotional Assessment	210	MD 0.79 (-0.77 to 2.35)	Low	No meaningful difference
Observer-coded attachment security score postintervention: assessed using the Toddler Attachment Sort-45	210	MD 0.04 (-0.04 to 0.12)	Low	No meaningful difference

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Observer-coded attachment security score at 6-months follow up: assessed using the Toddler Attachment Sort-45	210	MD -0.02 (-0.13 to 0.09)	Low	No meaningful difference
Caregiver-reported caregiver-child engagement score at postintervention: assessed using the Indicator of Parent-Child Interaction Assessment	210	MD -0.07 (-0.21 to 0.07)	Low	No meaningful difference
Caregiver-reported caregiver-child engagement score at 6-months follow up: assessed using the Indicator of Parent-Child Interaction Assessment	210	MD -0.09 (-0.23 to 0.05)	Low	No meaningful difference
Caregiver-reported internalising behaviour score at 6-months: assessed using the CBCL	210	MD -0.16 (-1.62 to 1.30)	Low	No meaningful difference
Caregiver-reported externalising behaviour score at 6-months: assessed using the CBCL	210	MD -1.07 (-3.36 to 1.22)	Low	No meaningful difference
Caregiver-reported emotional regulation score at 6-months: assessed using the Bayley-III Screening Test	210	MD 0.12 (-0.06 to 0.30)	Low	No meaningful difference
Caregiver-reported orientation/engagement score at 6-months: assessed using the Bayley-III Screening Test	210	MD 0.03 (-0.11 to 0.17)	Low	No meaningful difference

1 ***Table 36: Summary GRADE table (Therapeutic Playgroups vs CAU)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Foster parent-rated social competence at 2 weeks follow up: assessed by Child Behavior Checklist	20	**MD 1.53 (0.63 to 2.43)**	Very low	Effect favours intervention group
Foster parent-rated externalising behaviours at 2 weeks follow up: assessed by Child Behavior Checklist	20	MD -2.20 (-5.59 to 1.19)	Very low	Could not differentiate
Foster parent-rated internalising behaviours at 2 weeks follow up: assessed by Child Behavior Checklist	20	MD 1.30 (-2.52 to 5.12)	Very low	Could not differentiate
Teacher-rated social problems at 1 month following the start of school: assessed by Teacher Report Form	20	MD 0.00 (-2.72 to 2.72)	Very low	Could not differentiate
Teacher-rated externalising behaviours at 1 month following the start of school: assessed by Teacher Report Form	20	MD 0.90 (-7.12 to 8.92)	Very low	Could not differentiate
Teacher-rated internalising behaviours at 1 month following the start of school: assessed by Teacher Report Form	20	MD 0.10 (-6.71 to 6.91)	Very low	Could not differentiate

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Table 37: Summary GRADE table (Kids in Transition to School (KITS) programme vs Foster Care as Usual)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Prosocial skills score following intervention: assessed by Preschool Penn Interactive Peer Play Scale (PIPPS) score	192	MD -0.05 (-0.17 to 0.07)	Very low	No meaningful difference
Social competence score following intervention: assessed by the Child Behaviour Checklist	192	MD -0.10 (-0.67 to 0.47)	Very low	No meaningful difference
Association between being in the intervention group and prosocial skills following intervention before starting school: assessed by composite of indicators of prosocial skills, above (prosocial skills score, social competence score, and emotional understanding score)	192	β 0.4 P>0.05	Very low	No significant association was observed (unable to assess MID)
Behavioural regulation score following intervention: assessed by a composite score of the Activity Level subscale and Impulsivity subscale (of the Childrens Behaviour Questionnaire), the Externalizing subscale (of the Child Behaviour Checklist), and the Lability subscale of the Emotion Regulation Checklist (ERC)	192	MD 0.14 (-0.11 to 0.39)	Very low	No meaningful difference
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 difference
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)
Teacher-reported aggressive behaviour at the end of kindergarten year: assessed by the aggressive behavior subscales of the Teacher Report Form	192	MD -1.84 (-4.81 to 1.13)	Very low	No meaningful difference
Teacher-reported delinquent behaviour at the end of kindergarten year: assessed by the delinquent behavior subscales of the Teacher Report Form	192	MD -0.58 (-1.21 to 0.05)	Very low	No meaningful difference
Teacher-reported oppositional behaviour at the end of kindergarten year:	192	MD -0.81 (-1.78 to 0.16)	Very low	No meaningful difference

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
assessed by the oppositional subscale of the Conners' Teacher Ratings Scales-Revised: Short version (CTRS:S)				
Association between being in the intervention group and child oppositional and aggressive behaviours at the end of kindergarten year: assessed by composite of indicators of oppositional and aggressive behaviours, above (aggressive behaviour, delinquent behaviour, and oppositional behaviour).	192	**β -0.17 P<0.05**	Very low	An association was observed in favour of the intervention group (unable to assess if effect size is important)
Days free from internalising symptoms over 12 months of kindergarten: assessed by symptom reports from caregivers on the Child Behavior Checklist (CBCL) to create days that had significant internalizing symptoms	192	**MD 26.00 (0.05 to 51.95)**	Very low	Effect favours intervention group but may be less than the MID
Days free from externalising problems over 12 months of kindergarten: assessed by symptom reports from caregivers on the Child Behavior Checklist (CBCL) to create days that had significant externalizing behaviors	192	MD 26.60 (-2.76 to 55.96)	Very low	Could not differentiate
Positive attitudes towards antisocial behaviours at 9 years of age: assessed based on responses to 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?"	192	MD -0.09 (-0.27 to 0.09)	Very low	Could not differentiate
Involvement with deviant peers at 9 years of age: assessed by responses to questions about whether "none", "some", or "all" of their friends were involved in five rule-breaking or deviant behaviors	192	MD -0.19 (-0.44 to 0.06)	Very low	No meaningful difference
Association between being in the intervention group and positive attitudes towards antisocial behaviour at 9 years of age: assessed based on 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?"	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)

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2 ***Table 38: Summary GRADE table (Videogame Intervention (Dojo) vs Treatment as Usual)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Self-reported externalizing problems (SDQ) mean score at postintervention:	37	**MD -4.28 (-7.52 to -1.04)**	Very low	Effect favours intervention group

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
measured using the Strengths and Difficulties Questionnaire (SDQ)				but may be less than the MID
Self-reported externalizing problems (SDQ) mean score at 4-months follow up: measured using the SDQ	37	**MD -4.22 (-6.57 to -1.87)**	Very low	Effect favours intervention group
Mentor-reported externalizing problems (SDQ) mean score at postintervention: measured using the Strengths and Difficulties Questionnaire (SDQ)	37	MD -0.39 (-3.33 to 2.55)	Low	Could not differentiate
Mentor-reported externalizing problems (SDQ) mean score at 4-months follow up: measured using the SDQ	37	MD -0.83 (-3.58 to 1.92)	Very low	Could not differentiate

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2 ***Table 39: Summary GRADE table (Foster Family Intervention vs CAU)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Association between being in the intervention group and parent-child interaction (sensitivity) mean score at 6-months post-baseline: measured using the Emotional Availability Scales	123	**Beta: 2.49 (1.39 to 3.58)**	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 parent-child interaction (structuring) mean score at 6-months post-baseline: measured using the Emotional Availability Scales	123	**Beta: 2.16 (1.08 to 3.24)**	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 parent-child interaction (non-intrusiveness) mean score at 6-months post-baseline: measured using the Emotional Availability Scales	123	**Beta: 1.77 (0.69 to 2.85)**	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 parent-child interaction (responsivity) mean score at 6-months post-baseline: measured using the Emotional Availability Scales	123	**Beta: 1.44 (0.19 to 2.69)**	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 parent-child interaction (involvement) mean score at 6-months post-baseline: measured using the Emotional Availability Scales	123	Beta: 0.61 (-0.74 to 1.96)	Low	No significant association was observed (unable to assess MID)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Association between being in the intervention group and change in parenting stress over time (stress in role as parent) mean score at 6-months post baseline: measured using the Nijmeegse Ouderlijke Stress Index	123	Beta: 1.81 (-2.21 to 5.82)	Low	No significant association was observed (unable to assess MID)
Association between being in the intervention group and change in parenting stress over time (stress as a result of child factors) mean score at 6-months post baseline: measured using the Nijmeegse Ouderlijke Stress Index	123	Beta: -2.96 (-8.68 to 2.76)	Low	No significant association was observed (unable to assess MID)
Association between being in the intervention group and change in parenting stress over time (total stress) mean score at 6-months post baseline: measured using the Nijmeegse Ouderlijke Stress Index	123	Beta: -1.37 (-9.88 to 7.14)	Low	No significant association was observed (unable to assess MID)

1 ***Table 40: Summary GRADE table (The Ross Programme vs CAU)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Social Problem Solving Avoidance score postintervention: (Social Problem-Solving Inventory–Revised: Short Version)	28	**MD -18.36 (-28.69 to -8.03)**	Low	Effect favours intervention group
Behaviour problems total difficulties score postintervention: (Revised Rutter Scale For School-age Children)	28	**MD -2.43 (-3.99 to -0.87)**	Very Low	Effect favours intervention group but may be less than MID
Behaviour problems conduct difficulties score postintervention: (Revised Rutter Scale For School-age Children)	28	**MD -9.55 (-14.37 to -4.73)**	Low	Effect favours intervention group
Education risk of re-offending and aggressive and delinquent behaviours postintervention (Youth Level of Service/Case Management Inventory)	28	**MD -2.28 (-3.18 to -1.38)**	Low	Effect favours intervention group
Personality/behaviour risk of re-offending and aggressive and delinquent behaviours postintervention (Youth Level of Service/Case Management Inventory)	28	**MD -2.72 (-3.51 to -1.93)**	Low	Effect favours intervention group
Total risk of re-offending and aggressive and delinquent behaviours postintervention (Youth Level of Service/Case Management Inventory)	28	**MD -6.14 (-8.77 to -3.51)**	Low	Effect favours intervention group

1 ***Table 41: Summary GRADE table (kContact vs CAU)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Carer-reported internalising problem score at 9 months: measured using the Strengths and Difficulties Questionnaire	123	MD 0.62 [-0.79, 2.03]	Very low	Could not differentiate
Carer-reported externalising problem score at 9 months: measured using the Strengths and Difficulties Questionnaire	123	MD 1.10 [-0.49, 2.69]	Very low	Could not differentiate
Carer-reported conflict score at 9 months: measured using the Child Parent Relationship Scale	123	MD 1.50 [-1.26, 4.26]	Very low	Could not differentiate
Carer-reported closeness score at 9 months: measured using the Child Parent Relationship Scale	123	MD -0.34 [-1.64, 0.96]	Very low	Could not differentiate
Percentage of visits cancelled by parents	123	**MD -10.27 [-17.49, -3.05]**	Very low	Effect favours intervention group but may be less than the MID
Parent-reported conflict score at 9 months: measured using the Child Parent Relationship Scale	123	MD -0.25 [-3.56, 3.06]	Very low	Could not differentiate
Carer-reported closeness score at 9 months: measured using the Child Parent Relationship Scale	123	MD 1.18 [-1.36, 3.72]	Very low	Could not differentiate

2 ***Table 42: Summary GRADE table (Mentalisation-based therapy vs CAU)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Foster-carer reported internalising sub-scale at 12 weeks: assessed using the Strengths and Difficulties Questionnaire	36	MD -1.3 (-3.9, 1.4)	Moderate	Could not differentiate
Foster-carer reported internalising sub-scale at 24 weeks: assessed using the Strengths and Difficulties Questionnaire	36	MD -2.1 (-4.9, 0.7)	Moderate	Could not differentiate
Foster-carer reported externalising sub-scale at 12 weeks: assessed using the Strengths and Difficulties Questionnaire	36	MD -0.2 (-2.5, 2.2)	Low	Could not differentiate
Foster-carer reported externalising sub-scale at 24 weeks: assessed using the Strengths and Difficulties Questionnaire	36	MD -0.8 (-3.5, 1.9)	Moderate	Could not differentiate
Young person reported internalising sub-scale at 12 weeks: assessed using the Strengths and Difficulties Questionnaire	36	**MD 4.5 (0.8, 8.2)**	Very Low	Effect favours intervention group but may be less than the MID
Young person reported internalising sub-scale at 24 weeks: assessed using the Strengths and Difficulties Questionnaire	36	**MD 4.0 (0.4, 7.6)**	Very Low	Effect favours intervention group but may be less than the MID
Young person reported externalising sub-scale at 12 weeks: assessed using	36	MD 0.6 (-2.0, 3.2)	Very Low	Could not differentiate

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
the Strengths and Difficulties Questionnaire				
Young person reported externalising sub-scale at 24 weeks: assessed using the Strengths and Difficulties Questionnaire	36	MD 0.4 (-2.2, 3.0)	Very Low	Could not differentiate

1 ***Table 43: Summary GRADE table (Non-violent resistance vs CAU)***

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Foster-carer reported child internalising problems at postintervention: assessed using the CBCL	32	MD 1.54 [-1.48, 4.56]	Low	Could not differentiate
Foster-carer reported child internalising problems at 3 months: assessed using the CBCL	32	MD 1.11 [-2.10, 4.32]	Low	Could not differentiate
Foster-carer reported child externalising problems at postintervention: assessed using the CBCL	32	MD -2.25 [-7.05, 2.55]	Low	Could not differentiate
Foster-carer reported child externalising problems at 3 months: assessed using the CBCL	32	MD -3.14 [-7.60, 1.32]	Low	Could not differentiate
Foster-carer reported child total problems at postintervention: assessed using the CBCL	32	MD -3.00 [-13.69, 7.69]	Low	Could not differentiate
Foster-carer reported child total problems at 3 months: assessed using the CBCL	32	MD -2.68 [-13.51, 8.15]	Low	Could not differentiate
Foster-carer reported coping ability at postintervention: assessed using the Nijmegen Parenting Situation Scale	32	MD 0.97 [-1.74, 3.68]	Low	Could not differentiate
Foster-carer reported coping ability at 3 months: assessed using the Nijmegen Parenting Situation Scale	32	MD -0.50 [-3.12, 2.12]	Low	Could not differentiate
Foster-carer reported problem severity at postintervention: assessed using the Nijmegen Parenting Situation Scale	32	MD 0.15 [-2.23, 2.53]	Low	Could not differentiate
Foster-carer reported problem severity at 3 months: assessed using the Nijmegen Parenting Situation Scale	32	MD -1.47 [-3.82, 0.88]	Low	Could not differentiate
Foster-carer reported desire for change in parenting situation at postintervention: assessed using the Nijmegen Parenting Situation Scale	32	MD 0.74 [-1.48, 2.96]	Low	Could not differentiate
Foster-carer reported desire for change in parenting situation at 3 months: assessed using the Nijmegen Parenting Situation Scale	32	MD 0.45 [-1.73, 2.63]	Low	Could not differentiate

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Foster-carer reported parenting burden at postintervention: assessed using the Nijmegen Parenting Situation Scale	32	MD 0.13 [-2.57, 2.83]	Low	Could not differentiate
Foster-carer reported parenting burden at 3 months: assessed using the Nijmegen Parenting Situation Scale	32	MD -0.87 [-3.52, 1.78]	Low	Could not differentiate

Table 44: Summary GRADE table (Social Learning theory-based training vs CAU)

Outcome	Sample size	Effect size (95% CI)	Quality	Interpretation of effect[a]
Caregiver reported internalising behaviour mean score at postintervention: measured using the CBCL	123	MD -3.10 (-8.15 to 1.95)	Very low	Could not differentiate
Caregiver reported internalising behaviour mean score at 3-months follow up: measured using the CBCL	123	**MD -6.62 (-12.01 to -1.23)**	Very low	Effect favours intervention group but may be less than the MID
Caregiver reported externalising behaviour mean score at postintervention: measured using the CBCL	123	MD -1.43 (-5.45 to 2.59)	Very low	Could not differentiate
Caregiver reported externalising behaviour mean score at 3-months follow up: measured using the CBCL	123	**MD -5.32 (-9.41 to -1.23)**	Very low	Effect favours intervention group but may be less than the MID
Caregiver reported parental stress mean score at postintervention: measured using the ijmegen Questionnaire for the Parenting Situation	123	MD -1.48 (-10.38 to 7.42)	Very low	Could not differentiate
Caregiver reported parental stress mean score at 3-months follow up: measured using the ijmegen Questionnaire for the Parenting Situation	123	MD -4.79 (-14.31 to 4.73)	Very low	Could not differentiate

(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

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1 **Qualitative evidence**

2 ***Table 45: 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 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.	*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.

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 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	*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.

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.	*"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)* *"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*	**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.

	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 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)*	**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.
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	*"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*	**1** Conn 2018	ML: No concerns C: No concerns A: Serious concerns R: Moderate concerns	Only one study contributed to this theme. Study was from a non-UK country.

program, while difficult to implement at first, is an aspect that most parents incorporated as a key parenting value that has sustained over time.	*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 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)*		**Overall:** **Very Low**	
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	*"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*	**1** Conn 2018	ML: No concerns C: No concerns A: Serious concerns R: Moderate concerns **Overall:**	Only one study contributed to this theme. Study was from a non-UK country.

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.	*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)*		**Very Low**	

Table 46: 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	*No quote was reported to support this theme*	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns R: No concerns **Overall:**	Only 1 study contributed to this theme.

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.			**Very Low**	
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 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	*"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]"* *"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,*	**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.

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.	*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]"*			
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 sharing information and also being judged, a theme that was also reflected in the social worker feedback.	*"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]"*	**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.

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	*"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.

active, personal way, making the course work for them.				
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 … 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]"*	**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.
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:	*"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*	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns	Only 1 study contributed to this theme.

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 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:	*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]".* *"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*		R: No concerns **Overall:** **Very Low**	

	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 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]"*	**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.
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	*"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*	**1** Channon 2020	ML: No concerns C: No concerns A: Serious concerns R: No concerns	Only 1 study contributed to this theme.

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.	*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 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]"*		**Overall:** **Very Low**	

1 ***Table 47: Summary CERQual table (experience of looked after young people regarding Sibling Camp)***

Themes	illustrative quotes	Studies	CERQual concerns	CERQual explanation

Opportunities and special memories – Data showed that these participants found the sibling camps to be a fun experience. Often camp also enabled them to take part in activities that they had never done before. There was also a sense of pride from some young people that they achieved something in taking part in the activities. This often involved them overcoming nerves or fears, which seemed to have built their confidence and self-esteem. The activities not only boosted the confidence of some of the participants for others, it also provided important memories.	*"for me it was a fun weekend, and you want to have fun, especially with your brother" – Looked after person* *"yeah, it's amazing a good opportunity, jet skiing, quad biking, high ropes, um, yeah, we do loads of stuff like that, a lot of stuff. Um, on our last one, we played airoball, which were fun … yeah, it's like trampolining where you have got a ball, it's like basketball on the trampoline, you have to shoot in the other person's hoop and then you get points" Looked after person*	**1** Rogers 2020	ML: Minor concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. The study contributing to this theme was moderate risk of bias. This study had limitations in its selection of participants. No validation appears to have been performed.
Relationship with staff – the staff team was caring and supportive, which was a view shared by several participants. The participants suggested staff were skilled in settling people into the camp and making people feel welcomed and safe. The staff team came from backgrounds in education and youth work, and their skills in direct work with children were valued by the participants. The staff team were also very consistent, with the same core group working at the camps since its inception in 2009; this consistency was recognized by the participants. The relationships with the staff group also seemed to extend beyond camp with the staff being contacted at the charities office to offer support. The consistent staff team was recognized by the participants as skilled in responding calmly to children and young people. They also presented in the data as being instrumental in supporting the relationships between siblings, which at times as with any sibling group could be challenging.	*"I got along with staff from the start … they were really supportive, they were nice to me. I can remember my first camp spending most of my time playing cards with staff." – looked after person* *"I do not know my social worker that well. I mean with camp, you get to spend a whole week with people there and they do look after you. You probably spend more time with people at camp in one week than you would with a social worker in years." – looked after person*	**1** Rogers 2020	ML: Minor concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. The study contributing to this theme was moderate risk of bias. This study had limitations in its selection of participants. No validation appears to have been performed.

Getting on and building bonds – Rivalries and conflicts are well documented in the literature relating to siblings, and although the participants in this study were overwhelmingly positive about the camps, and the quality time it afforded them with their siblings, they did present how at times this involved its challenges. For some participants the camps seemed to strike an important balance between supervision and support from the staff with the space for the siblings to exercise their agency, share their feelings and thoughts with each other and strengthen their sibling bonds.	*"We argued a lot, but after that because we had that time to argue we got to know each other better and that's why we know how to sort our situations out now." Looked after person* *"Today me and my brother we get along very well and camp was a big part of that … it is important especially when siblings are separated they do not get to see each other a lot, but when you put them in the same bedroom for a whole week that's when they get to know each other more, and when you do activities … you get relaxed after a while. But it wasn't until after going to the second camp that's when I got used to it, me and my brother we were mature then and we got along better, and yeah so the second camp in terms of getting on with my brother was better… I did get to know my brother more." – looked after person* *"Supervised contact is pretty nice but when you get to spend 5 days in an unsupervised environment, that is pretty freeing, it's open minded … You get to sort of feel free. It's sort of like when we were originally at home. It's not like contact like nothings stopping us like social worker, no laws, and no supervisor. It was sort of just us*	**1** Rogers 2020	ML: Minor concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. The study contributing to this theme was moderate risk of bias. This study had limitations in its selection of participants. No validation appears to have been performed.

	two and that second time at camp we really bonded together … For us we sort of felt like we could tell each other a lot of stuff about each other and what went on in the family … It took a lot off each other's shoulders. So, we got to sort our problems … it did feel very nice." – looked after person			
The benefits of time with others who have a shared experience – the data showed camps provided a safe supportive space for siblings to come together, have fun and build their bonds. However, data also revealed that camps provided another positive experience that the young people also valued and that was the ability to meet with others who had the same experience. Other participants felt that they could trust others who attended the camps, which, in turn, led to close friendships	*"Yeah, because they know like what it's like to not live with their siblings, cos they do not live with all their siblings, so that they like understand what you are going through … So that way you can trust everyone." – looked after person*	**1** Rogers 2020	ML: Minor concerns C: No concerns A: Serious concerns R: No concerns **Overall:** **Very Low**	Only 1 study contributed to this theme. The study contributing to this theme was moderate risk of bias. This study had limitations in its selection of participants. No validation appears to have been performed.

1 ***Table 48: 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	*"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*	**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.

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.	*"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*			
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	*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*	**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.

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.	*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] 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	*"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*	**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.

have the capacity to identify when a youth may require clinical care	*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* *"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."	*"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*	**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.

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.	*"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*			
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.	*"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 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*	**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.
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	*"[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.

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 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*	**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.

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."	*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*			
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.	*"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."* *"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*	**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. Study were from the USA.
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	*"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*	**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.

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.	*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*			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	*"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*	**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.

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 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.	*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 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	*"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*	**1** Castellanos-Brown 2010	ML: No concerns C: No concerns A: Serious concerns R: Minor concerns	Only 1 study contributed to this theme. Study from outside of the UK.

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.	*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* *"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*		**Overall:** **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.	*"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 –	*"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*	**2** Castellanos-Brown 2010	ML: No concerns C: No concerns	Only 2 studies contributed to this

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**.**	*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*	Tullberg 2019	A: Moderate concerns R: Minor concerns **Overall:** **Very Low**	theme. Studies were from 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	*"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.

were mentioned by 1 TFC parent. Six mentioned the staff, counselors, or social workers at this agency were strengths.				
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 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*	**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.

Table 49: 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 **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.
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*	**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

	your face and they're shouting at you, and just walk away and let them calm down. (Foster carer)"			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	*"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

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.				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	*"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*	**1** Kirton 2011	ML: Serious concerns C: Minor 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

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.	*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)*		**Overall:** **Very Low**	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 think if I was a 13-year-old lad ... would I really want to be*	**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

	negotiating buying my free time, my time out with points? But they do ... and they stick to it." (Team member)			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 practice, for example, on	*No supportive quote was reported for this theme*	**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.

televisions in bedrooms or consumption of fizzy drinks.			**Overall:** **Very Low**	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?' ... It's not the kind of ... Pavlov's dogs type thing that everyone*	**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.

	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 provision is challenging in terms of recruitment. Several young people who had left MTFC had subsequently kept	*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.

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 triangulation, respondent

			Very Low	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.

1

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. All records were excluded on basis of title and abstract for this review question. 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 are summarised in Appendix J.

Economic model

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 initially prioritised for economic modelling, as the committee agreed that they were likely to have important downstream consequences on the health-related quality of life of LACYP and utilisation of public sector resources. Additionally, initial evidence mapping in the Economic Plan indicated an overlap in RCT evidence for review questions 1.1, 2.1 and 3.2, hence an overarching model was planned to address all three review questions. The evidence was insufficient for review question 1.1, therefore the planned modelling was focused on review questions 2.1 and 3.2.

Only one intervention, MTFC, is being considered in the committee's recommendations relating to review questions 2.1 and 3.2. RCT evidence was identified in the effectiveness reviews showing MTFC is efficacious in promoting positive relationships (review question 2.1) and promoting physical, mental and emotional health and wellbeing (review question 3.2) in a very specific subgroup of LACYP (i.e., adolescents with a history of persistent offending behaviour). MTFC is, however, associated with substantial costs of implementation and delivery, due to human resource requirements and the individualised, intensive nature of the intervention's components. The costs of MTFC and the costs associated with current standard care in the UK for looked after adolescents with a history of persistent offending behaviour were therefore estimated to determine if the development of a de novo economic model for MTFC was necessary. A detailed description of the costing analysis is available in the evidence review for review question 3.2, but briefly a UK study reported costs for MTFC, residential care and foster care, using a bottom-up approach and considered several processes experienced by LACYP. Assuming that the care placement was maintained for 6 months, the total costs for MTFC and residential care were calculated to be £62,985 and £82,324, respectively, with a breakdown of the costs in Table 50. A validation exercise using nationally available costs increased the estimate of residential care to £127,522, indicating that MTFC is likely less expensive than usual care (i.e. residential care).

Table 50: 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/

As the costing analysis highlights that MTFC is less costly than usual care (i.e., residential care) in looked after adolescents with a history of persistent offending behaviour and the effectiveness review indicates MTFC is efficacious in promoting positive relationships, and physical, mental and emotional health and wellbeing, the planned modelling was not required to support the committee's recommendations for review questions 2.1 and 3.2. Additional, details of the costing analysis and the justification for not pursuing de novo economic modelling for review questions 2.1 and 3.2 are provided in the evidence review for review question 3.2.

The committee's discussion of the evidence

Interpreting the evidence

The outcomes that matter most

The evidence for improving positive relationships was presented to the committee, this included several interventions that broadly fell into the categories of multidimensional treatment foster care; parent training interventions; other relationship-enhancing programmes; family finding and planning interventions; and specific treatments that had a greater focus on mental health problems and school readiness. The outcomes for all findings were discussed. The most commonly reported outcomes across the evidence base were problem behaviour scores. The committee noted that, while behavioural problems were considered outcomes of interest (and defined as such in the review protocol) there is a difference between improving behaviours and improving relationships. Undoubtably, the existence of problem behaviours has an impact on the quality of relationships in the life of a looked-after person. However, the committee wanted to be mindful that behaviour is a narrower outcome which doesn't reflect whether the child in care or care leaver is experiencing positive relationships more broadly.

Some studies reported criminal outcomes. In some cases, these were objective and clearly defined criminal outcomes such as the number of days in locked settings, the number of criminal referrals, and the occurrence of violent crime over follow up. The committee considered these to be important outcomes particularly among the subset of looked-after children with persistent criminal offending behaviour.

Finally, the committee voiced some concern that many of the behavioural and relationship outcomes were reported on scales that were not known to the committee. In some cases,

these appeared to be validated scores, such as the Child Behaviour Checklist or the Parent Daily Report, but in other cases the validity of the scale used was unclear. Sometimes scales had been developed by the authors themselves for use in the study and had therefore not been validated. In other cases, authors modified outcomes or created construct scores for which, again, it was unclear if there was validation. Many studies also reported associations rather than mean differences or risk ratios making it unclear if this was a true cause and effect relationship. In all cases, the committee found it difficult to know how the magnitude of the difference in scores translated to tangible differences in reality.

The quality of the evidence

Other than issues relating to the outcomes reported, discussed above, the committee considered the broad quality of the evidence presented. Studies were commonly downgraded for the following reasons: considerable differences were reported between comparison groups at baseline, or differences were unadjusted for; it was unclear how randomisation was performed; it was unclear if allocation to comparison group was concealed; large amounts of participants were lost to follow up, or there were significant amounts of missing data, or unclear how much data was missing; no blinding procedures were applied combined with subjective outcomes; and there was possible selectivity of outcomes or of the analysis performed. Such issues increased risk of bias and contributed to the “very low” GRADE quality rating for most outcomes.

In addition, as has occurred in other evidence reviews, a significant proportion of the identified evidence was based in non-UK settings. Setting is particularly important for this guideline, since many of the issues faced by UK-based LACYP and care leavers are complex and context dependent. Interpretation is particularly a problem in evidence using comparison groups that may be receiving a standard of social care that is significantly less than the standard currently received in the UK. Such comparison groups may give the impression that an intervention would be highly beneficial, when its effects would actually be less dramatic in a UK setting. One example includes the evidence presented on a family finding intervention in which birth family and natural support network are included as part of care placement and contact decisions. The committee noted that, where in the child’s best interest, this would already be standard practice in the UK.

Some issues of indirectness were also raised. Particularly there were several research studies presented where the included populations were youth offenders in the United States who had been referred to out of home care for rehabilitation purposes. In is unclear whether, had these youth been in the UK, they would have been placed in care, however if a population of youth offenders were compared to another group who were also in care, this evidence was included and presented to the committee. This evidence was marked down once for GRADE-rated quality due to indirectness.

Lastly, the evidence of effect derived from some studies was imprecise. Small sample sizes (or outcomes with great variability between individuals) resulted in large confidence intervals from which it was often difficult to tell whether an intervention had any effect whatsoever. In some cases, studies reported a statistically significant difference, but the committee noted it was difficult to tell whether the effect observed was large enough to be meaningful. In such cases, evidence was marked down for GRADE-rated quality due to imprecision.

Benefits and harms

Effectiveness evidence was presented to the committee. The committee began by considering effectiveness evidence from studies investigating multi-dimensional treatment foster care (MTFC) and other kinds of treatment foster care. Evidence was presented for a form of MTFC designed for pre-schoolers which reported variable improvements on behaviour scores at 3 months and 12 months follow up (but some differences in “change in

behaviour score"). Since the raw change in score data was not reported it was difficult to tell whether these differences were important. The committee noted that the intervention was being applied in 3- 5 year olds without any known behavioural or mental health issues. MTFC is an intensive treatment requiring trained foster parents and a multidisciplinary team including behavioural specialists and family therapists. Therefore, to recommend this intervention for all 3 – 5 year olds in foster care would be require a great deal of resources and require much stronger evidence (including cost-effectiveness evidence).

The committee considered evidence (several studies) looking at the use of MTFC in adolescents. MTFC in this case involved a clinical team consisting of a case manager (supervising and co-ordinating the treatment), and individual therapist (supporting the youth to achieve their daily progress), skills trainers (for practicing prosocial and other skills in youth's daily activities), a parent daily report caller (who helps with the daily monitoring of behaviour), a family therapist (to support reunification into the birth family), and a trained foster family. Once again, the committee noted that this would represent a very resource-intensive intervention.

The committee noted that MTFC in adolescents had a significant and, in some cases, large impact in favour of the intervention group for behavioural outcomes, such as internalising and externalising behaviour; and criminal outcomes, such as experience of being in a locked setting, involvement in violent crime, and number of criminal referrals. The intervention was also found to have some positive effects on negative relationships, as association with delinquent peers was significantly reduced in multiple studies. While one UK-based study found no significant differences for "number offending" over follow up, the committee considered that this was a small study (n=34) and confidence intervals were too wide to differentiate an important impact from a lack of impact.

The committee discussed the populations that were included in these studies, which largely represented youth offenders referred from the criminal justice system, or populations with significant pre-existing behavioural and conduct disorders. The committee were impressed by the evidence of effectiveness, particularly evidence showing reduced involvement with the criminal system and reduced rates of violent crime and imprisonment across these populations (criminal outcomes were considered particularly important, see above). Therefore, it was considered that this intervention would be suitable for sub-populations of looked after youth in whom behavioural issues were significant and persistent enough to merit regular involvement of the criminal system. The committee therefore recommended that multidimensional foster care should be considered specifically for adolescents with a history of persistent offending.

However, the committee also noted that potential harms of this intervention should be considered – as this intervention could pose a threat to any existing children in the foster family, as well as expose foster carers to risk where behaviour problems were severe. In addition, the committee considered that recruitment of foster carers may be a problem (and insuring foster carers an additional cost).

Next the committee considered evidence looking at the effectiveness of parent-training interventions (some of which included child-training components). This evidence covered a wide range of interventions including, Promoting First Relationships, video-feedback interventions, Parent-Child Interaction Therapy, Incredible Years, Fostering Changes, KEEP foster parent training, Parent Management Training Oregon, the Ross Programme, Staying Connected with Your Teen, and other training programmes. Evidence showed a broad positive impact of many interventions on behavioural scores (commonly internalising, externalising, and total problem behaviour scores) and some relationship scores, such as maternal sensitivity or prosocial scores. However, significant differences were often sporadic

e.g. showing significant improvements for one kind of problem behaviour score, but not another.

The committee considered the following evidence of effect (or lack of effect):

- Parent Management Training Oregon was associated with improved social-emotional functioning, problem behaviour, and social skills scores.
- The fostering changes programme was associated with improvements in child behaviour mean score and foster child attachment relationship, but this study also found no meaningful difference between comparison groups for pro-social score.
- The KEEP foster parent training intervention was associated with an improvement in number of child behaviour problems, and parental stress associated with their child.
- Studies considering Incredible Years training, found no meaningful difference between comparison groups for mean externalising score at postintervention, and teacher-reported mean disruptive classroom behaviour score.
- Staying Connected With Your Teen parenting training was associated with improved bonding/attachment score.
- Extended Parent-Child Interaction Therapy was associated with improved child behaviour mean scores (problem scale) but found no meaningful difference between intervention and control group for caregiver reported parental distress/parenting stress associated with a difficult child.
- Brief Parent-Child Interaction Therapy was associated with improved parent-child dysfunctional interaction and child behaviour scores. However, no meaningful difference between comparison groups was observed for caregiver reported parental distress in the parent-child relationship.
- Child-Directed Interaction Training was associated with improved child externalising behaviour mean score at postintervention.
- A foster carer communication training intervention was associated with improved reactive attachment mean score.
- A social-learning theory-based training intervention was associated with improved internalising behaviour and externalising behaviour scores. The Ross Programme, a training intervention delivered in residential care, was associated with improvements in social problem solving, behaviour problem scores, and risk of reoffending, and aggressive and delinquent behaviours.

The committee considered that there was broad evidence that such parent-training interventions were beneficial in tackling child behaviour problems, and in improving the child-caregiver relationship. However, it was noted that the components of these training interventions were heterogenous. Teaching and information giving focussed on different aspects of parenting theory such as sensitive caregiving, attachment, social interaction learning theory, being trauma informed, and broader behavioural management techniques. To support teaching, some used video-feedback techniques, others used homework/home assignments, role play, and practical activities, while one programme was self-taught.

Conversely, Promoting First Relationships when compared to Early Education Support, found no meaningful difference between comparison groups for social competence score, problem behaviour score, attachment security score, engagement score, and internalising and externalising behaviour scores. However, the committee considered that this may be as a result of being compared to an active (treated) control group.

The committee noted that small studies of other parent training interventions were too imprecise to differentiate an effect. Such as one trial looking at a video-feedback intervention, and another looking at a CBT-informed foster parent intervention.

The committee considered that there was sufficient evidence to show the benefit of caregiver training interventions for behavioural and relational outcomes in looked after children and young people. However, it was noted that training was not inexpensive, and it is likely that different caregivers would require a different intensity of training. For example, LACYP with behavioural problems and with placement instability were likely to require more specialised and highly trained caregivers.

The committee requested that the evidence be presented with training programmes broken down into their component parts and their targeted populations. The teaching method used, curriculum, duration of intervention, and target age/population should all be considered. Then effectiveness evidence by “type” and “population” should be presented. Using this information, the committee recommended a) the contents of training programmes to be applied across all caregivers b) the contents of training programmes to be applied strictly to LACYP with in need of special intervention. The committee considered the need to be careful in that there are some aspects of behavioural management interventions that could cause harm to LACYP. For example, there is some evidence that children with a history of trauma may be negatively affected by time-out approaches to behaviour management.

The committee considered subgroups, among carers who may need more individualised training. Based on their own experience and knowledge, the committee considered birth parents in situations where reunification is a possibility. The committee recognised that joining mandatory training schedules, i.e. alongside foster carers, may not be ideal for birth parents who may have significant personal challenges to overcome and need additional support.

Based on their own experience and knowledge, as well as UK-based interview and focus group studies, the committee considered other subgroups of carers who may need specialised training. The committee considered evidence showing the challenges for carers of adapting to a looked after child or young person's cultural, religious, or dietary needs. The committee also recognised that certain ethnic groups may also have hair and skin care needs, that a carer would be expected to know how to support. This was also true for carers of looked after children and young people with special educational needs and disabilities, where training specified to the person's particular need may be required.

Next the committee considered two interventions aimed at enhancing the relationship between siblings in care. These were Promoting Sibling Bonds (applied in young children) and Supporting Siblings in Foster Care (applied in young adolescents). Promoting Sibling Bonds was associated with improvements in sibling interaction quality, and parent-reported sibling aggression. Supporting Siblings in Foster Care was associated with improvements in sibling relationship and interaction quality, and externalising problems score. Studies had a relatively large sample size (n=328, and n=243, respectively). The committee noted that one study had adjusted for siblings living apart which they felt to be an important modifying factor to the success of an intervention.

The components of Promoting Sibling Bonds included sibling sessions with instruction, live demonstrations, role playing, coaching, and positive feedback and the earning of rewards; parent training in mediation of specific sibling conflict, disagreement, or disputes, with consistent management strategies and the use of non-harsh and consistent parenting and mediation strategies. In joint sessions, the parent, sibling pair, and clinicians reviewed together week-to-week progress, problem-solved implementation barriers in the foster home, and reinforced positive interactions with home assignments. The components of Supporting Siblings in Foster Care were activity-based skill building sessions reinforcing social and self-regulatory skills (such as co-operation, communication, emotional self-regulation) and coaching with supervised games and role play including home assignments. When asked,

lay members agreed that these activities could have been useful in their own home situations not just with biological siblings but also non-biological siblings who they may be living with (biological or adopted children of the caregiver). However, it was noted that harm could result from such interventions if safeguarding considerations were not taken into account (since facilitated sibling relationships may not be beneficial in all cases).

The committee considered that the relationship between siblings needs to be stable before any other (activity-based) interventions could even be attempted. This should be done in the home setting with a caregiver who is trained in mediating strategies, therefore the committee recommended to offer training for caregivers to support sibling relationships, to stabilise sibling relationship prior to offering further intervention (taking into account safeguarding issues).

The committee did not consider the need to recommend any specific intervention for supporting sibling relationships, but rather drew out the core components of the presented interventions that were found to be effective. Based on the evidence reviewed for interventions to support sibling relationships, the committee drafted recommendations, drawing out the differences between interventions aimed at younger children and those aimed at adolescents (it was noted that older children may not respond as well to the involvement of caregivers and may benefit more from independent coaching).

As noted above, the committee considered evidence presented on a family finding intervention in which birth family and natural support network are included as part of care placement and contact decisions. The committee noted that, where in the child's best interest, this would already be standard practice in the UK. In addition, the committee felt that the intervention was too much focussed on promoting kinship care, when this may not be in the child's best interest in all cases.

A mental health intervention "Dojo" was also considered. This was a videogame which taught CBT relaxation techniques, while evoking emotions during minigames in order to help practice these techniques. The committee noted that while youth in residential care self-reported improvements in behavioural problems, the mentor-reported improvements were less convincing. This intervention was not recommended.

Finally, the committee reviewed several interventions that had been considered under readiness for school (review question 4.1). It was noted that the Attachment and Biobehavioural Catch-up intervention was associated with improved behaviour scores and parenting stress in the caregiver-child relationship. However, this intervention had already been recommended under review question 4.1 for readiness for school, so no further recommendations were made. Similarly, Kids in Transition to Schools programme which was associated with improved self-regulatory skills, oppositional and aggressive behaviours, internalising free days, and antisocial behaviour (at 9 years of age). However, for this intervention, no meaningful difference was observed between groups for prosocial skills, social competence score, behavioural regulation score, and emotional regulation score, as well as teacher-reported aggressive, delinquent, and oppositional behaviour score, and involvement with deviant peers at 9 years. The committee did not want to make any further recommendations on readiness for school interventions on the basis of these results. Head Start intervention had also been discussed previously and was considered to be too ill-defined an intervention to recommend: Head Start provides comprehensive services to low income children and families including preschool education; medical, dental, and mental health care; nutrition services; and services to help parents foster their child's development. The committee noted that many of these services would be considered standard care in the UK.

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 positive relationships for LACYP.

The committee recommended that MTFC be considered as an intervention for looked after adolescents with a history of persistent offending behaviour. The committee agreed that although MTFC is associated with high implementation and running costs, when MTFC is used in adolescents with a history of persistent offending behaviour these upfront costs are likely to be offset by the lower recurring monthly costs and additional benefits generated from the intervention compared with usual care (i.e., residential care).

For interventions to promote sibling relationships, the committee noted that the interventions as described in the randomised controlled trials were potentially costly and made up of several components, including multiple sessions for sibling pairs, caregivers and joint sessions as well as community activities. The committee discussed that there are currently limited services specifically aimed at siblings and while they did not wish to recommend any of the specific interventions as defined in the trials, they felt that components of the interventions were likely to be effective. The committee recommended that training should be offered to carers to support positive sibling relationships. The committee noted that this should start at the time of placement and could be delivered by youth workers to contain costs, rather than graduate-level practitioners as was assumed in the randomised controlled trial evidence.

Recommendations

1.2.20 Consider multidimensional treatment foster care for looked-after adolescents with a history of persistent offending behaviour.

1.3.12 Provide a schedule of mandatory training for all carers. This should cover:

- Therapeutic, trauma-informed, parenting (covering attachment-informed, highly supportive and responsive relational care)
- How to communicate effectively and sensitively (for example, using de-escalation techniques).

Training can be delivered in person (for example, at home or in community group settings) or virtually.

1.3.13 Provide targeted support and training for birth parents where reunification is a possibility. This should be provided through transition planning with family support teams.

1.3.14 Think about providing tailored training for carers where there are specific needs related to race, ethnicity, and culture. This could include, for example, understanding and respecting cultural and religious identity (including dietary preferences), and understanding specific hair and skin care needs.

1.3.15 Think about providing tailored training for carers where there are specific needs relating to special educational needs and disabilities, for example sensory and communication needs. Training could be provided through specialist healthcare teams and voluntary organisations.

1.3.16 Based on the individual needs of the looked-after person, consider more intensive training methods for carers to support the delivery of therapeutic, trauma-informed caregiving. These methods should use video feedback, coaching and observation, roleplay, and follow-up booster sessions and be delivered by trained facilitators.

1.2.2 Consider interventions to improve the relationship between siblings in care, including biological siblings who live apart and non-biological siblings who live together (for example, other looked-after children on placement, and the carer's biological or adopted children). Take into account safeguarding issues and the looked-after child or young person's preferences.

1.2.3 For primary-school-age children, or those needing greater assistance, ensure that the primary caregiver is present during interventions to improve relationships between siblings in care. Components of this intervention should include:

- structured conversation around relationships and conflict resolution
- incentivised cooperation, for example shared activities and outings to reward prosocial, cooperative behaviour
- shared activities with coaching in prosocial skills using life story work.

1.2.4 Consider relationship coaching independently from the carer for adolescent siblings in care.

1.2.5 Offer carers support to help them understand and maintain stable sibling relationships before offering interventions to improve the relationship between siblings in care.

This evidence review supports recommendations 1.2.2 to 1.2.5, 1.2.20, and 1.3.12 to 1.3.16. Other evidence supporting these recommendations can be found in the evidence reviews on placement stability [evidence review A and B].

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Quantitative effectiveness evidence

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Cost effectiveness

No cost-effectiveness evidence was identified for this review question

Appendices

Appendix A – Review protocols

Review protocol for RQ 2.1: What is the effectiveness of health and social care interventions and approaches to support positive relationships for looked-after children and young people and care leavers?

ID	Field	Content
0.	PROSPERO registration number	[Complete this section with the PROSPERO registration number once allocated]
1.	Review title	Interventions and approaches to support positive relationships for looked-after children and young people and care leavers
2.	Review question	2.1a: What is the effectiveness of health and social care interventions and approaches to support positive relationships for looked-after children and young people and care leavers? 2.1b: are interventions to support positive relationships 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 to support positive relationships in school-aged looked-after children and young people?
3.	Objective	Quantitative To determine the effectiveness and harms of health and social care interventions and approaches to support positive relationships for looked after children, young people and care leavers. Qualitative To determine if interventions to support positive relationships are acceptable and accessible to looked after children, 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 support positive relationships in 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, and their families and carers (including birth parents, connected carers, and prospective adoptive parents). 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. • Children and young people preparing to leave care. • 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 support positive relationships. Including support for: children and young people themselves; birth families (with children and young people under a full care order); foster carers; key workers in residential care units; connected carers; prospective adopters; special guardians; and social care workers. Example interventions and approaches of interest include: • Interventions to improve the relationship quality of siblings in care (including siblings living together and siblings separated by care processes) • Interventions to improve the relationship quality with foster family/prospective adoptive birth children

		• Interventions to improve relationship between LACYP and carers (excluding interventions for attachment disorders) • Interventions to improve the relationship of LACYP and care leavers with peers, including at school, work, socially, or with other LACYP • Interventions and approaches to improve the relationship of LACYP and care leavers with other adults in positions of trust (for example, youth workers, advocates, teachers, health care professionals, social workers, and personal advisors) • Interventions and approaches to support placement stability, where relationship quality (as defined above) is reported as an outcome. • 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 support positive relationships. <u>Qualitative evidence</u> Not applicable
9.	Types of study to be included	<u>Quantitative evidence</u> • 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): <u>Qualitative evidence</u> • 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 support positive relationships.
10.	Other exclusion criteria	• Studies including mixed populations (i.e. looked after and non-looked after children) without reporting results separately for LACYP • Strategies, policies, system structure and the delivery of care that is covered in statutory guidance about looked after children and young people • Studies and interventions relating to attachment in children and young people who are in care (excluding evidence that is primarily among LACYP with attachment disorders or attachment difficulties, using the definitions outlined in the NICE guideline on attachment difficulties) • Studies of interventions for specific clinical conditions • Mental health and emotional wellbeing interventions covered in existing NICE guidelines • Health promotion interventions covered in existing NICE guidelines <u>Quantitative evidence exclusions</u> • 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) <u>Qualitative evidence exclusions</u> • 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	This review will consider interventions to support positive relationships in children and young people who are looked after and care leavers. In March 2018, 75,420 children and young people in England were looked after. Care placements for looked after children and young people may include: foster placement (73%), residential accommodation (including secure units, children's homes, and semi-independent living arrangements) (11%), placement with birth parents (6%), placement for prospective adoption (3%), another placement in the community (4%), or placement in residential schools or other residential settings (3%). For looked after children and young people only 29% of placements are long term and 50% of long-term teenage placements have been found to break down. The main reason for children and young people entering care was abuse or neglect (reported for about 63%). Positive relationships may have a positive influence on physical and mental health and wellbeing outcomes as well as improving placement stability in the lives of looked after children/young people and care leavers.
12.	Primary outcomes (critical outcomes)	<u>Quantitative outcomes</u> • Quality of the relationship between child or young person and significant people in their lives such as siblings, peers, carers, or trusted adults • Behavioural and social functioning • Criminal outcomes <u>Qualitative outcomes</u> Qualitative evidence related to interventions to positive relationships 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 in supporting positive relationships.
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. <u>Qualitative data</u> 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. <u>Evidence integration</u> 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 up to age 18 • Care leavers Type of relationship • Relationship with siblings • Relationship with foster family birth children • Relationship with carers • Relationship with peers • Relationship with trusted adult (e.g. health and social care professional, or teachers) Subgroups, of specific consideration, will include: • Looked-after children on remand • Looked-after children in secure settings • Looked-after children and young people and care leavers 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 are refugees • Looked-after children and young people and care leavers who are at risk or victims of exploitation (including female genital mutilation) and trafficking • Looked-after children and young people and care leavers who are teenage and young parents in care

		• Looked-after children and young people and care leavers 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 and young people and care leavers who are LGBTQ
18.	Type and method of review	☒ Intervention ☐ Diagnostic ☐ Prognostic ☐ Qualitative ☐ Epidemiologic ☐ Service Delivery ☐ Other (please specify)
19.	Language	English
20.	Country	England
21.	Anticipated or actual start date	[For the purposes of PROSPERO, the date of commencement for the systematic review can be defined as any point after completion of a protocol but before formal screening of the identified studies against the eligibility criteria begins. A protocol can be deemed complete after sign-off by the NICE team with responsibility for quality assurance.]
22.	Anticipated completion date	[Give the date by which the guideline is expected to be published. This field may be edited at any time. All edits will appear in the record audit trail. A brief explanation of the reason for changes should be given in the Revision Notes facility.]
23.	Stage of review at time of this submission	**Review stage** / **Started** / **Completed** Preliminary searches ☐ ☐ Piloting of the study selection process ☐ ☐ Formal screening of search results against eligibility criteria ☐ ☐

		Data extraction	☐	☐
		Risk of bias (quality) assessment	☐	☐
		Data analysis	☐	☐
24.	Named contact	**5a. Named contact** [Give development centre name] **5b Named contact e-mail** [Guideline email]@nice.org.uk [Developer to check with Guideline Coordinator for email address] **5e Organisational affiliation of the review** National Institute for Health and Care Excellence (NICE)		
25.	Review team members	From the Guideline Updates Team: • Caroline Mulvihill • Stephen Duffield • Bernadette Li • Rui Martins		
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: [NICE guideline webpage].
29.	Other registration details	[Give the name of any organisation where the systematic review title or protocol is registered (such as with The Campbell Collaboration, or The Joanna Briggs Institute) together with any unique identification number assigned. If extracted data will be stored and made available through a repository such as the Systematic Review Data Repository (SRDR), details and a link should be included here. If none, leave blank.]
30.	Reference/URL for published protocol	[Give the citation and link for the published protocol, if there is one.]
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. [Add in any additional agree dissemination plans.]
32.	Keywords	Looked after children, looked after young people, children in care, relationships, interventions, systematic review
33.	Details of existing review of same topic by same authors	[Give details of earlier versions of the systematic review if an update of an existing review is being registered, including full bibliographic reference if possible. NOTE: most NICE reviews will not constitute an update in PROSPERO language. To be an update it needs to be the same review question/search/methodology. If anything has changed it is a new review]
34.	Current review status	☐ Ongoing ☐ Completed but not published ☐ Completed and published

		☐ Completed, published and being updated ☐ Discontinued
35..	Additional information	[Provide any other information the review team feel is relevant to the registration of the review.]
36.	Details of final publication	www.nice.org.uk

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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)
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)

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

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)

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)

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

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

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

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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)

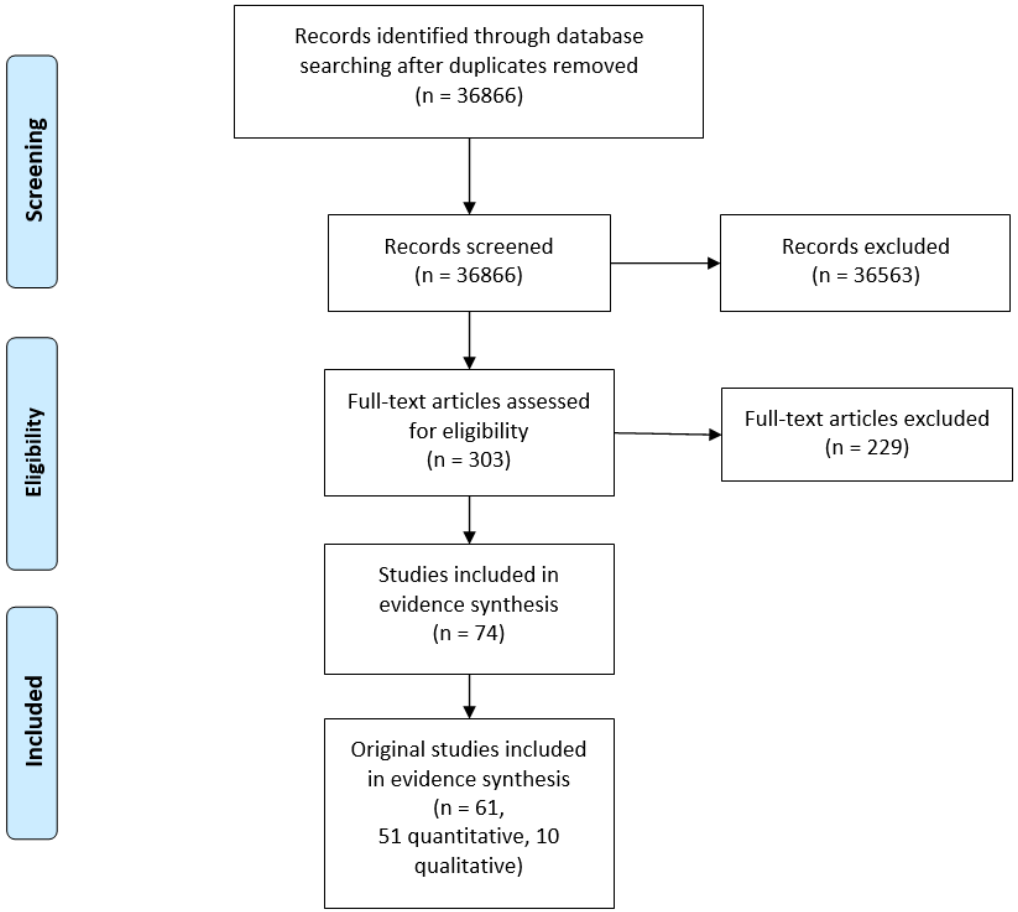
100 (hye or hyes).tw. (123)

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 – Evidence

Quantitative evidence

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.)

Bick 2013

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Infants in foster care
Study dates	Not reported
Duration of follow-up	Postintervention
Sources of funding	Not reported
Inclusion criteria	Age Foster parents were selected for this study if they were caring for foster children who were 22 months of age or younger study completion Foster mothers and infants were included in this study if they completed the 10-session intervention, the pre-intervention assessment of maternal sensitivity, and at least one postintervention assessment of maternal sensitivity.
Sample size	96 foster parent-infant dyads

Split between study groups	ABC= 44 DEF = 52
Loss to follow-up	Not reported (participants who didnt complete were excluded)
% Female	all female (foster parents)
Mean age (SD)	foster parents: 45 ± 10.7 years infants: 9.9 ± 6.05 months
Condition specific characteristics	Non-white ethnicity 54%
Outcome measures	Relationship outcome Maternal sensitivity: maternal sensitivity was assessed as a caregiver's skillfulness in perceiving [her] infant's signal, interpreting the signal correctly, selecting an appropriate response, and implementing the response effectively. Foster mothers' sensitivity was assessed during a 10-min play interaction. Assessments of foster mothers' sensitivity took place at multiple time points: the pre-intervention visit, the 30-day postintervention assessment, the postintervention assessment that took place when children were 12 months of age, and the postintervention assessment that took place when children were 24 months of age. During the play interaction, foster mothers were asked to play with their infant "as they usually would" for 10 min. These interactions were video-recorded. Maternal sensitivity (observed during this play interaction) was scored on a 5-point Likert scale, with higher levels of sensitivity receiving higher scores and lower levels of sensitivity receiving lower scores. Foster mothers received a rating of 5 if they were able to appropriately and consistently adjust their behavior to respond to their infant's cues for the duration of the interaction. For example, if the foster infant preferred to clap together blocks (rather than stack the blocks, for example), a highly sensitive foster parent would follow along with the infant's preference. If the infant showed enjoyment in an activity, a highly sensitive foster mother would respond to the infant's cues by showing delight. If an infant showed distress or tired of a particular activity, a highly sensitive foster mother would adjust her behavior accordingly by soothing the infant and/or offering alternative activities. High levels of sensitive behavior also included responding to the infant's signals of overstimulation. Foster mothers who showed moderate levels of sensitivity or a combination of sensitive and insensitive behavior received moderate scores on this scale. Foster mothers who displayed consistently insensitive behavior received a 1 on this scale. Insensitive behavior was defined as harsh, intrusive, controlling, or disengaged maternal behavior. All coders passed a reliability test prior to coding maternal sensitivity. Coders were blind to the group assignment of the mother–infant dyads.
Study Arms	**Attachment and Behavioural Catch-up (ABC) (N = 44)** 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.

Mean age (SD)	foster parents: 44.6 ± 11.2 years infants: 10.0 ± 7.3 months
Condition specific characteristics	Non-white ethnicity 54% Number of care placements 1.3 ± 5.7 time in care time in placement: 3.1 ± 3.3
Outcome measures	Relationship outcome Maternal sensitivity: ABC intervention predicted the degree to which foster mothers' maternal sensitivity levels changed from pre- to post-intervention , beta coefficient = 0.09 (95%CI 0.013 to 0.165, p=0.024), after controlling for foster infants' age, placement duration, and foster mothers' educational level

Developmental Education for Families (DEF) (N = 52)

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. Mean age (SD): foster parents: 46.3 ± 10.2 years; infants: 12.1 ± 6.8 months Condition specific characteristics: Non-white ethnicity 54%; Number of care placements 1.3 ± 7.0; time in care 3.1 ± 3.6 months
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Some concerns (no information about randomisation process or allocation concealment, however "no significant differences were observed between intervention groups for foster infants age, duration of placement, previous number of placements, or foster age") **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** High (Unclear approach to loss to follow up; unclear how many lost to follow up (probable per-protocol approach)) **Domain 3. Bias due to missing outcome data** High (Unclear how much missing data overall, and how much this varied between study groups) **Domain 4. Bias in measurement of the outcome**

	Low (measurements were blinded and had "excellent inter-rater reliability") **Domain 5. Bias in selection of the reported result** Some concerns (unclear approach to missing data/loss to follow up. Unclear that approach used for analysis was adhoc. No protocol cited.) **Overall bias and Directness** High **Overall Directness** Indirectly applicable (USA-based 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

Casonato 2017

Study type	Randomised controlled trial (RCT)
Study location	Italy
Study setting	Mothers with a court order that established that they were unable to provide necessary care for the physical and psychological needs of their children and therefore needed to be monitored by child protection services, in parental care residential settings
Study dates	Not reported
Duration of follow-up	Postintervention
Sources of funding	Italian Health Ministry
Inclusion criteria	Care situation

	In parental residential care centers for mothers and children receiving protective and educational services for issues related to child maltreatment; expected to stay longer than 5 months; Parent All women had a decree of the juvenile court that established that they were unable to provide necessary care for the physical and psychological needs of their children and therefore needed to be monitored by child protection services; knowledge of the Italian language; study completion including post-intervention evaluation
Exclusion criteria	health problems severe medical conditions for both mother and child (i.e. serious physical impairments, mental retardation, history of psychosis)
Sample size	13
Split between study groups	intervention= 7 mother-child dyads Control = 5 mother-child dyads
Loss to follow-up	1 person was lost to follow up due to no post-intervention evaluation (leaving 12 participants)
% Female	children 67% mothers 100%
Mean age (SD)	maternal mean age = 26.83 ± 9.52 years children mean age = 19.58 ± 9.51 months
Condition specific characteristics	Non-white ethnicity 67% were "foreigners"
Outcome measures	Relationship outcome Maternal sensitivity: Maternal sensitivity was assessed, both at pre- and post-test, during a 10- minute free-play period during which mothers were instructed to interact with their children as they normally did, followed by a 5-minute period where mothers were asked to fill in a questionnaire while the child was free to play. The 72-item version of the Maternal Behavior Q-Set (MBQS; Pederson & Moran, 1995) was used to rate maternal sensitivity. This instrument is composed of 72 items describing maternal interactive behavior (e.g. “During ongoing interactions, misses slow down or back off signals from B,” “Builds on focus of B’s attention,” “Non-synchronous interactions with B”), and is based on the q-sort technique (Waters & Deane, 1985). Specifically, raters are instructed to assess items as being most-like, neutral or unlike the observed mother, sorting them first into three groups

	and then into nine groups (8 items in each pile), depending on the degree to which they represent maternal observed behavior. A sensitivity score is then calculated as the correlation between the observer's sort and a criterion sort describing the prototypically sensitive mother, which is provided by the authors of the MBQS. Scores range from −1.0 (least sensitive) to 1.0 (prototypically sensitive). Two coders with a master's degree in Psychology and familiar with attachment theory were extensively trained on 10 pilot videotapes until an inter-rater agreement of at least 80% was achieved. Then, the study videos were coded blindly to all information relating to the dyads (included group and pre–post status). relationship outcome 2 Maternal discipline (inflexibility/laxness/physical interference/supportive presence): Maternal discipline was assessed, both at pre- and post-test, during a 2-minute clean-up task, where mothers were instructed to ask their child to put all the toys in a box. To code the videos, the adapted version of the discipline rating scales employed by Verschueren, Dossche, Marcoen, Mahieu, and Bakermans-Kranenburg (2006) was used. Specifically, parental ability to use positive strategies (e.g. distraction) in order to prevent conflict escalation was rated on the Inflexibility scale, ranging from 1 (Flexible) to 5 (Inflexible). The tendency of parent to adopt "giving up" behaviors was rated on the Laxness scale, ranging from 1 (No laxness) to 5 (Continuous laxness), whereas non-harsh physical attempts to get the child to clean up was rated on the Physical interference scale, ranging from 1 (No physical interference) to 5 (Continuous physical interference). The other discipline observation scales (i.e. Psychological Control, Verbal Overreactivity/ Negativity, and Harsh Physical Interference) were not employed in the current study because of the extremely low frequencies of these behaviors in our sample. Additionally, parental positive regard and emotional support to the child was rated on the Erickson Supporting Presence scale (Egeland, Erickson, Clemenhagen-Moon, Hiester, & Korfmacher, 1990), ranging from 1 (Completely fails to be supportive) to 7 (Skillfully provides support throughout the session). Videos were coded by 1 coder (different from those assessing maternal sensitivity) with a Master's degree in Psychology who was blind to all data relating to the dyads (included group and pre–post status).
Study Arms	**Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline (VIPP-SD) (N = 7)** The VIPP-SD is a home-based, short-term intervention, aimed at enhancing maternal sensitivity and positive discipline through the use of videofeedback technique. The VIPP-SD program is based on a standardized protocol of six home visits: the first four visits each have their own themes, tips and exercises for mother and child regarding both sensitivity and discipline. These are scheduled at 2-week intervals. The last two visits, which are 1 month apart, are booster sessions that allow for reviewing themes from the previous sessions. Each intervention session is composed of two parts. In the first part, the intervener films mother and child during daily situations (e.g. playing together, reading a book, cleaning up) in short episodes of 10–30 minutes. In the second part, the intervener reviews the videos from the previous session with the mother and discusses specific previously selected segments chosen to foster her observational skills and empathy for the child. The intervention themes of the four visits focus on both maternal sensitivity and sensitive discipline. The themes for maternal sensitivity are (1) exploration versus contact seeking, (2) "speaking for the child," (3) sensitivity, and (4) empathy. The themes for sensitive discipline are (1) inductive discipline and distraction, (2) positive reinforcement, (3) sensitive time-out, and (4) empathy for the child. Interveners are instructed to reinforce positive and appropriate mother–child interactions and effective discipline strategies and to involve mothers in the discussion as "experts" about their own child. Information about the general development of young children is also provided. At the end of the last session, each participant receives a booklet with a summary of the themes, tips and advice given during the video feedback sessions. In our study, all intervention sessions took place in a familiar environment (i.e. the bedroom of the dyad or the recreation room) at the residential care center where mother and child were currently housed. Each visit lasted approximately 1.5 hours. The only adjustment needed to the VIPP-SD protocol due to our residential placement context was related to the third visit, which typically involves filming during lunch time. As lunch in these residential settings usually occurred in a

common room with other mother–child dyads, authors substituted it by filming a private snack break in order to guarantee the privacy of all dyads and exclude any external interference. The VIPP-SD intervention was delivered by two female interveners, one with a master's degree in Clinical Psychology and the other one with a PhD in Developmental Psychology. Both of them completed the 1-week training in Milan (Italy), were certified as interveners, and received supervision from a VIPP-SD trainer during the intervention phase. All participants assigned to the intervention group attended all the sessions and completed the entire research protocol.

Study type	Randomised controlled trial (RCT)
Study location	Italy
Study setting	Mothers with a court order that established that they were unable to provide necessary care for the physical and psychological needs of their children and therefore needed to be monitored by child protection services, in parental care residential settings
Study dates	Not reported
Duration of follow-up	Postintervention
Sources of funding	Italian Health Ministry
Inclusion criteria	Care situation In parental residential care centers for mothers and children receiving protective and educational services for issues related to child maltreatment; expected to stay longer than 5 months; Parent All women had a decree of the juvenile court that established that they were unable to provide necessary care for the physical and psychological needs of their children and therefore needed to be monitored by child protection services; knowledge of the Italian language; study completion including post-intervention evaluation

Sample size	13
Loss to follow-up	1 person was lost to follow up due to no post-intervention evaluation (leaving 12 participants)
% Female	not reported
Mean age (SD)	not reported
Outcome measures	Relationship outcome Maternal sensitivity score postintervention (Maternal Behaviour Q-Set), mean: 0.55 ± 0.20 relationship outcome 2 Maternal discipline score postintervention: inflexibility (discipline rating scale): 1.93 ± 0.73; laxness (laxness scale): 2.71 ± 0.76; physical interference (physical interference scale): 1.43 ± 0.79; supportive presence (Supporting Presence scale): 5.14 ± 0.85

Control arm (phonecall) (N = 5)
Parallel to the intervention group, the mothers in the control group received six telephone calls that were scheduled at the same time intervals as the VIPP-SD sessions. Each phone call involved predefined open questions to the mothers concerning standard topics related to child development, such as play, sleep, feeding, and social relations. The phone calls were always delivered by the same VIPP-SD intervener and lasted approximately 10 minutes. During each phone call, mothers were encouraged to talk about the development of their child, but no tips or advice were provided. Moreover, whenever explicitly asked for advice, interveners redirected mothers to the educators of the residential care center or to their pediatrician. All participants assigned to the control group received all the phone calls scheduled and completed the entire research protocol.

% Female	not reported
Mean age (SD)	not reported
Outcome measures	Relationship outcome Maternal sensitivity score postintervention (Maternal Behaviour Q-Set), mean: 0.46 ± 0.19

	relationship outcome 2 Maternal discipline score postintervention: inflexibility (discipline rating scale): 2.60 ± 1.14; laxness (laxness scale): 2.60 ± 0.89; physical interference (physical interference scale): 1.40 ± 0.89; supportive presence (Supporting Presence scale): 5.00 ± 1.00
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 (Italian study)

Chamberlain 2008a/Chamberlain 2008b/Price 2008

Study type	Randomised controlled trial (RCT) see also Chamberlain 2008: Prevention of Behavior Problems for Children in Foster Care: Outcomes and Mediation Effects. Chamberlain 2008: Cascading Implementation of a Foster and Kinship Parent Intervention.
Study location	USA
Study setting	Children in Foster Care
Study dates	between 1999 and 2004
Duration of follow-up	6.5 months follow up
Sources of funding	Department of scientific and industrial research; National Institute of Mental Health; US Public Health Service; National Institute on Drug Abuse.
Inclusion criteria	Age child aged 5 to 12 years Care situation all foster and kinship parents receiving a new placement; children had to have been in the new placement for at least 30 days
Sample size	700
Split between study groups	KEEP: 359 Control: 341
Loss to follow-up	Not reported
% Female	52%

Mean age (SD)	8.8 years
Condition specific characteristics	Non-white 78% (29% spoke both english and spanish, 2% spoke only spanish)
Outcome measures	Behavioural outcome 1 Child behaviour problems postintervention and at 5 months follow up: measured using the parent daily report (PDR) checklist a 30-item measure of child behavior problems delivered by telephone to parents during a series of three consecutive or closely spaced days (1 to 3 days apart). A trained interviewer asked the parent "Thinking about (child's name), during the past 24 hours, did any of the following behaviors occur?" Parents were asked to recall only the past 24 hours and to respond "yes" or "no" (i.e., the behavior happened at least once or did not occur). Placement stability 1 Negative exits from care (placement breakdown) over 200 day/6.5 month follow up. Foster parents were asked at the termination assessment if the child had remained in the home or had moved, and assessors coded the timing and reason for these exits. Negative exits were defined by negative reasons for the child's exit from the home, such as being moved to another foster placement, a more restrictive environment such as a psychiatric care or juvenile detention center, or child runaways. Permanency 1 Positive exits from care (permanency) over 200 day/6.5 month follow up . Foster parents were asked at the termination assessment if the child had remained in the home or had moved, and assessors coded the timing and reason for these exits. Positive exits were defined as any exit from the foster or kinship placement home that was made for a positive reason, such as a reunion with biological parent or other relative or an adoption. Placement stability 2 No change in placement over follow up (%) Relational outcome 1 Proportion of positive reinforcement: Proportion positive reinforcement was measured using a ratio score of foster parent positive reinforcement and discipline behaviors. The amount of positive reinforcement and discipline per day was computed by aggregating foster parent responses to standardized questions during a 2-hour foster parent interview, and foster parent reports of the use of reinforcement and discipline on the PDR. The foster parent interview items included measures of the frequency of positive reinforcement (How often do you use rewards?) and discipline (How often do you have to discipline?). Each item was rated on a 7-point Likert-type scale, ranging from "don't use this strategy" to "3 or more times per day." PDR items included the number of incentives the foster parent reported using per day (positive reinforcement) and the total number of disciplines used per day (discipline). Correlations between the foster parent interview and PDR scores were significant (r = .20–.28 for positive reinforcement and r = .48–.51 for discipline). An average from the two sources provided a multimethod index of these dimensions of parenting.
Study arms	**KEEP foster parent training (N = 359)** Participants in the intervention group received 16 weeks of training, supervision, and support in behavior management methods. Intervention groups consisted of 3 to 10 foster parents and were conducted by a trained facilitator and co-facilitator team. Curriculum topics were designed to map onto protective and risk factors that were been found in previous studies to be developmentally relevant malleable targets for change. The primary focus was on increasing use of positive reinforcement, consistent use of non-harsh discipline methods, such as brief time-outs or privilege removal over short time

spans (e.g., no playing video games for one hour, no bicycle riding until after dinner), and teaching parents the importance of close monitoring of the youngster's whereabouts and peer associations. In addition, strategies for avoiding power struggles, managing peer relationships, and improving success at school were also included. Sessions were structured so that the curriculum content was integrated into group discussions and primary concepts were illustrated via role-plays and videotaped recordings. Home practice assignments were given that related to the topics covered during sessions in order to assist parents in implementing the behavioral procedures taught in the group meeting. If foster parents missed a parent-training session, the material was delivered during a home visit (20% of the sessions). Such home visits have been found to be an effective means of increasing the dosage of the intervention for families who miss interventions sessions. Parenting groups were conducted in community recreation centers or churches. Several strategies were used to maintain parent involvement, including (a) provision of childcare, using qualified and licensed individuals so that parents could bring younger children and know that they were being given adequate care, (b) credit was given for the yearly licensing requirement for foster care, (c) parents were reimbursed $15.00 per session for traveling expenses, and (d) refreshments were provided. Attendance rates were high: 81% completed 80% or more of the group sessions (12+), and 75% completed 90% or more of the group sessions (14+). The intervention was implemented by paraprofessionals who had no prior experience with the MTFC behavior management model or with other parent-mediated interventions. Rather, experience with group settings, interpersonal skills, motivation and knowledge of children were given high priority in selecting interventionists. Interventionists were trained during a 5-day session and supervised weekly where videotapes of sessions were viewed and discussed.

Study type	Randomised controlled trial (RCT)
% Female	50%
Mean age (SD)	8.88 years
Condition specific characteristics	Non-white 80%
Outcome measures	Behavioural outcome 1 Child behaviour problems score (mean number of child problem behaviours per day) 5 months post baseline, mean: 4.37 ± 3.91. Adjusting for baseline child behaviour problems, and child age, a significant relationship between the intervention group and 5 month child behaviour problems: beta

	coefficient -0.14. Effect size was greater for a high risk subgroup (>6 child problem behaviours daily): beta coefficient -0.11 (P<0.01) compared to a low risk subgroup (<6 problem behaviours daily): beta coefficient -0.22 (P<0.01) Placement stability 1 12.2% had negative exits from care (placement breakdown) over 200 day/6.5 month follow up. In Cox regression, the relationship between intervention status and placement breakdown: beta coefficient 0.89 ± 0.47, adjusted for kinship care, child age, child gender, english primary language, days in placement at baseline, number of prior placements Permanency 1 17.4% had a positive exit from care (unclear n). Relationship between being in the intervention group and rate of positive exit from care: beta coefficient 1.96 ± 0.47 (p=0.006), adjusted for kinship care, child age, child gender, english primary language, days in placement at baseline, number of prior placements Placement stability 2 Number experiencing no change over follow up: 70.4% (n not reported) Relational outcome 1 Positive reinforcement score 5 months post-baseline, mean: 1.06 ± 0.60; Discipline score 5 months post-baseline, mean: 1.06 ± 1.13; Proportion positive reinforcement 5 months post-baseline, mean: 0.60 ± 0.28. A model that excluded child behavior problems but included paths from baseline intervention group, proportion positive reinforcement, and child age to termination proportion positive reinforcement showed a significant path from intervention group to termination proportion positive reinforcement controlling for initial levels of reinforcement, Beta = 0.13 (P<0.05)

Control (N = 341)

State law requires all foster parents to participate in some form of parent training and support group each year in order to maintain their licenses. Foster parents participating in the KEEP intervention were permitted to use participation in this training to count toward their licensing requirements. During the course of the year, foster parents in the control condition also participated in some type of parent training and support group made available to them through usual child welfare services.

Study type	Randomised controlled trial (RCT)
% Female	54%
Mean age (SD)	8.72 years
Condition specific characteristics	Non-white 75%

	Outcome measures	Behavioural outcome 1 Child behaviour problems score (mean number of child problem behaviours per day) 5 months post baseline, mean: 5.44 ± 4.15 Placement stability 1 Negative exits from care (placement breakdown) over 200 day/6.5 month follow up: 14.3% (n not reported) Permanency 1 Positive exits from care (permanency) over 200 day/6.5 month follow up: 9.1% (n not reported) Placement stability 2 number with no change in placement over follow up: 76.6% (n not reported) Relational outcome 1 Positive reinforcement score 5 months post-baseline, mean: 0.88 ± 0.53; Discipline score 5 months post-baseline, mean: 1.24 ± 1.20; Proportion positive reinforcement 5 months post-baseline, mean: 0.52 ± 0.28
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Some concerns (unclear how randomisation was performed and whether allocation was concealed. Children in the intervention group were more likely to be Spanish-speaking than control group children, but no further differences were found between groups for age, type of care, gender, or ethnicity) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Some concerns (Unclear if significant deviations between intervention groups.) **Domain 3. Bias due to missing outcome data** Some concerns (Of the 700 parents who completed the baseline interview, 81% (n = 564) provided data at termination. Comparisons of missing and non-missing cases on baseline measures showed a significant difference in foster parents' proportion positive reinforcement, t(696) = -2.95, p = .003; cases with missing data at termination were higher on this variable at baseline. There were no significant differences between the intervention group and the control group on attrition and missing data rates.) **Domain 4. Bias in measurement of the outcome**	

	Some concerns (outcomes were self-reported from interviews with a trained interviewer. It was unclear if interviewers were aware of intervention status but a validated questionnaire was followed.) **Domain 5. Bias in selection of the reported result** Some concerns (many aspects of the trial protocol and methods are unclear such as: method of randomisation, allocation concealment, drop out, number who successfully completed placements, whether intent to treat analysis was used, and whether assessors of the outcomes were aware of the intervention group.) **Overall bias and Directness** High Overall Directness Indirectly applicable (USA based)

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)

Curran 2009

Study type	Randomised controlled trial (RCT)
Study location	UK
Study setting	Adolescent boys within residential care (with behavioural problems)
Study dates	not reported
Duration of follow-up	postintervention
Sources of funding	not reported
Inclusion criteria	Age 13 - 14 years old Care situation placed in an Education and Care Centre in Scotland on a residential or day placement by Social Work Services or Psychological Services. emotional or behavioural disorders Participants were assessed on the Youth Level of Service/Case Management Inventory to determine their level of risk and only those at high risk took part. Gender Boys

Sample size	32
Split between study groups	Ross programme = 16 Control group = 16
Loss to follow-up	Ross programme = 2 Control group = 2
% Female	0%
Mean age (SD)	13 - 14 years old
Outcome measures	Behavioural outcome 1 Behaviour problems total difficulties score postintervention: assessed using the Revised Rutter Scale For School-age Children Relationship outcome Social Problem Solving Avoidance score postintervention: assessed using the Social Problem-Solving Inventory–Revised: Short Version - The Social Problem-Solving Inventory–Revised: Short Version (SPSI-R:S) is a self-report instrument that assesses participants' strengths and weaknesses in their problem-solving abilities so that deficits could be addressed and progress in treatment could be tracked. The SPSI-R:S contains a total of 25 items of which there are five component scales to assess problem- solving styles and solution generation (i.e., Positive Problem Orientation; Negative Problem Orientation; Rational Problem Solving; Impulsivity/Carelessness Style; Avoidance Style). Behavioural outcome 2 Behaviour problems conduct difficulties score postintervention assessed using the Revised Rutter Scale For School-age Children - The Revised Rutter Scales incorporate prosocial items and include a number of additional items to provide a better coverage of behaviours shown by younger children. This scale is completed by young people's carer or guardian. Behavioural outcome 3 Education-based risk of re-offending and aggressive and delinquent behaviours postintervention: assessed using the Youth Level of Service/Case Management Inventory - The YLS/CMI is a combined and integrated risk/needs assessment tool for young people who are involved in offending behaviour. It was used to assess each participant's level of risk of re-offending and their aggressive and delinquent behaviours. This inventory is a reliable and valid instrument for predicting the risk of further offending and highlights areas of need that should be addressed in subsequent interventions. It is a 42- item test that focuses on eight main risk factors that are highly associated with reoffending, these include prior and current offences, family circumstances, education, peer relations, substance use, leisure/recreation, personality/behaviour, and attitudes/ orientation. This instrument is appropriate for use by a variety of professionals, including probation officers, youth workers, psychologists, and social workers. Behavioural outcome 4 Personality/behaviour-based risk of re-offending and aggressive and delinquent behaviours postintervention: assessed using the Youth Level of Service/Case Management Inventory Behavioural outcome 5 Total risk of re-offending and aggressive and delinquent behaviours postintervention: assessed using the Youth Level of Service/Case Management Inventory

Study arms

The Ross Programme (N = 14)

A cognitive behavioural intervention used within a number of residential schools and secure units within Scotland is termed the Ross Programme. This programme is targeted at 13–16-year-old youths whose antisocial behaviour has led to their coming under supervision of specialized schools, social service agencies, or juvenile justice agencies (Ross & Hilborn, 2003). Because cognitive behavioural programmes are increasingly being seen as offering the best chance of success in reducing recidivism), some of the most important approaches identified have been incorporated into this programme: problem-solving; consequential thinking; social skills; balance; emotional competence; values; conflict resolution; and rational thinking.

Condition specific characteristics	Emotional or Behavioural disorders Avoidance style mean score: assessed using the Social Problem-Solving Inventory–Revised: 92.14 SD 11.81
Outcome measures	Behavioural outcome 1 Behaviour problems total difficulties score postintervention (Revised Rutter Scale For School-age Children): 16.07 SD 5.54 Relationship outcome Social Problem Solving Avoidance score postintervention: assessed using the Social Problem-Solving Inventory–Revised: Short Version - The Social Problem-Solving Inventory– Revised: Short Version (SPSI-R:S) is a self-report instrument that assesses participants' strengths and weaknesses in their problem-solving abilities so that deficits could be addressed and progress in treatment could be tracked. The SPSI-R:S contains a total of 25 items of which there are five component scales to assess problem- solving styles and solution generation (i.e., Positive Problem Orientation; Negative Problem Orientation; Rational Problem Solving; Impulsivity/Carelessness Style; Avoidance Style). Behavioural outcome 2 Behaviour problems conduct difficulties score postintervention (the Revised Rutter Scale For School-age Children): 3.43 SD 1.83 Behavioural outcome 3 Education-based risk of re-offending and aggressive and delinquent behaviours postintervention (the Youth Level of Service/Case Management Inventory): 2.29 SD 1.34 Behavioural outcome 4 Personality/behaviour-based risk of re-offending and aggressive and delinquent behaviours postintervention (the Youth Level of Service/Case Management Inventory): 3.14 SD 0.86 Behavioural outcome 5 Total risk of re-offending and aggressive and delinquent behaviours postintervention (the Youth Level of Service/Case Management Inventory): 20.93 SD 2.92

No treatment control (N = 14)

	Care as usual

Condition specific characteristics	Emotional or Behavioural disorders Avoidance style mean score: assessed using the Social Problem-Solving Inventory–Revised: 110.71 SD 19.10
Outcome measures	Behavioural outcome 1 Behaviour problems total difficulties score postintervention (the Revised Rutter Scale For School-age Children): 25.62 SD 7.34 Relationship outcome Social Problem Solving Avoidance score postintervention (the Social Problem-Solving Inventory–Revised: Short Version): 109.07 SD 15.53 Behavioural outcome 2 Behaviour problems conduct difficulties score postintervention (the Revised Rutter Scale For School-age Children): 5.85 SD 2.34 Behavioural outcome 3 Education-based risk of re-offending and aggressive and delinquent behaviours postintervention (Youth Level of Service/Case Management Inventory): 4.57 SD 1.09 Behavioural outcome 4 Personality/behaviour-based risk of re-offending and aggressive and delinquent behaviours postintervention (the Youth Level of Service/Case Management Inventory): 5.86 SD 1.23 Behavioural outcome 5 Total risk of re-offending and aggressive and delinquent behaviours postintervention (the Youth Level of Service/Case Management Inventory): 27.07 SD 4.08

Risk of Bias	**Domain 1: Bias arising from the randomisation process** High (Unclear how randomisation was performed; unclear if allocation concealment; In addition a significant difference was observed between groups for avoidance style at baseline, however, it was unclear which other baseline variables were assessed for comparability at baseline) **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

	(Unclear if missing data and how much e.g. unclear how many participants were contributing to raw scores reported) **Domain 4. Bias in measurement of the outcome** Some concerns (No apparent blinding for assessment of self-report outcomes, however validated measures were used) **Domain 5. Bias in selection of the reported result** High (Raw scores and outcomes were only reported for significant differences) **Overall bias and Directness** High **Overall Directness** Directly applicable

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) 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.	
	Outcome measures	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
Risk of Bias	**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** 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 2009

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Young children in foster care
Study dates	Not reported
Duration of follow-up	Postintervention
Sources of funding	National Institute of Mental Health
Inclusion criteria	Age Infants Care situation Foster families were referred to the project at the time of initial infant placement.
Sample size	46
Split between study groups	ABC= 22 DEF = 24
Loss to follow-up	Not reported

% Female	50%
Mean age (SD)	18.9 ± 3.5 months
Condition specific characteristics	Non-white ethnicity 74%
Outcome measures	Relationship outcome Parent Attachment Diary: This measure allows for daily recording of infants' behaviors when they are distressed (e.g., hurt, scared, and separated) and in the presence of their primary caregiver. For this reason authors describe the behaviors indicated in the diary as attachment behaviors. For each incident, foster parents used a check-list to record infants' initial help-seeking behavior (or lack thereof), their own behavioral responses, and infants' behavioral response to the foster parents. Foster parents were also asked to provide a brief narrative describing the incident. Foster parents were asked to complete the diary for a period of 3 days. Coders assessed whether each child behavior involved proximity seeking/contact maintenance, successful calming by the parent, avoidance, or resistance. Behaviors considered proximity seeking included moving toward the parent, signaling for the parent, and wanting to be held by the parent. Successful calming was indicated by quickly being soothed by the parent without the display of angry or ambivalent behavior. For all analyses, proximity seeking/contact maintenance and successful calming scores were summed to yield one score for secure behavior. Behaviors coded as avoidant included the child acting as if he or she was not hurt or scared, ignoring the parent, and moving away from the parent when in need. Behaviors coded as resistant included angry behaviors while in distress such as kicking, hitting, or biting the parent, and showing a continual fussiness or inability to be soothed by the parent. Each behavior indicated by the mother was assigned a classification, unless it was determined that the situation itself was not sufficiently distressing to be considered relevant to the assessment of attachment (e.g., If the parent leaves the child with a familiar caregiver during a separation). In this case, the data was considered missing. Two raters coded the diaries. Interrater reliability on a subset (26%) of subjects was .88 for coding secure behaviors, 1.00 for avoidant behaviors, and .86 for resistant behaviors.
Study Arms	**Attachment and Behavioural Catch-up (ABC) (N = 22)** 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.

% Female	not reported
Mean age (SD)	not reported
Outcome measures	Relationship outcome Attachment Behaviour postintervention (Parent Attachment Diary): avoidant behaviour score: 0.12 ± 0.24. Secure behaviour score: 1.30 ± 0.30

Developmental Education for Families (DEF) (N = 24)

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.

% Female	not reported

	Mean age (SD): not reported Outcome measures: Relationship outcome Attachment Behaviour postintervention (Parent Attachment Diary): avoidant behaviour score: 0.35 ± 0.41. secure behaviour score: 1.18 ± 0.54
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 (Method of randomization not given. No baseline characteristics provided in order to judge how successful randomization was. Investigators say there was no significant difference between arms though. Participants were 'blinded'. However, they were likely aware of which arm they were in. Foster parents recorded the outcomes. This could have resulted in bias given how difficult true blinding is likely to be.) **Overall Directness** Partially applicable

	(USA study)

Eddy 2000/2004

Study type	Randomised controlled trial (RCT)
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	midintervention, post intervention, 1 year follow up, 2 years follow up
Sources of funding	National Institute of Mental Health (NIMH).
Inclusion criteria	Care situation still at their placements at the time of the 3-month assessment Criminal characteristics adolescent 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

	(numbers analysed were fewer for analysis in all outcomes other than violent offenses, see loss to follow up)
Loss to follow-up	MTFC = 7 GC = 19 (for analysis in all outcomes other than violent offenses)
% 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).
Outcome measures	Behavioural outcome 1 Criminal referrals. Electronic records of official referrals were collected from the juvenile courts of each county a youth had resided in during his lifetime. The official criminal referral variables used were the total number of days a youth had at least one criminal referral in the 6 months prior to baseline (prebaseline) and the total number of days a youth had at least one criminal referral between the time of placement and 1 year following exit from placement. Relationship outcome Prior to the baseline assessment, participants averaged 13.5 criminal referrals (SD = 8.7), including 3.9 felonies (SD = 3.8). Postive adult-youth relationship was derived from a set of four questions relating to how much the youth and caretake "like" each other. Discipline related to a total count of inappropriate responses in relation to discipline practices. Supervision related to a set of questions relating to amount of time spent together and differences in knowledge of behavioural problems. Deviant peer association related to a set of questions regarding to association and influence by devient peers. Behavioural outcome 2 At each of the major assessments, all youth were interviewed using the Elliot Behavior Checklist protocol (Elliott, Ageton, Huizinga, Knowles, & Canter, 1983). During the interview, youth were asked to recall in detail their criminal activity during the prior 6-month period. The General Delinquency subscale score at baseline was used as the prebaseline measure, and the average of the General Delinquency subscale scores from the 12-, 18-, and 24-month interviews was used as the follow-up measure. Thus, the follow-up measure is an estimate of the average number of delinquent acts during a 6-month period within the 18 months after placement. For both the prebaseline and the follow-up measure, the subscale items were capped at a maximum frequency of 7 prior to computing the total score. Behavioural outcome 3 Violent behaviour: Violent behavior was indexed in two ways—official records of violent offenses and selfreported violent behavior. Violent offenses were the number of times each participant had an official criminal referral for assault, menacing, kidnapping, unlawful weapons use, robbery, rape, sexual abuse, attempted murder, and murder. A similar indicator was constructed using self-reported data. Authors computed an index of violent acts by summing the number of times the participants admitted to perpetrating each of the following

	acts: “hit or threatened to hit family member,” “hit or threatened to hit someone at work,” “hit or threatened to hit staff at school,” “hit or threatened to hit other students,” “hit or threatened to hit anyone else,” “attacked someone with the idea of seriously hurting or killing that person,” “used force or strong-arm methods to get money/things from students,” “used force or strong-arm methods to get money/things from others,” “gang fights,” and “rape.”
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). Split between study groups: MTFC = 37; GC = 42

Loss to follow-up	MTFC = 7 GC = 19
Mean age (SD)	"there were no differences between GC and MTFC youth for age at baseline"
Condition specific characteristics	Emotional or Behavioural disorders At the baseline assessment, the MTFC and GC means for antisocial behavior in the 6 months prior did not differ. Criminal characteristics "there were no differences between GC and MTFC youth in terms of the number of days with at least one criminal referral prior to baseline, the number of self-reported crimes, the number of felony referrals, the age of first criminal referral"
Outcome measures	Behavioural outcome 1 mean criminal referrals index score at 1 year follow up: 2.10 ± 2.55 Relationship outcome Family management and deviant peer association mean scores. Positive adult-youth relationship score at placement midpoint: 0.23 ± 0.67. Discipline score at placement midpoint: 0.48 ± 0.25; Supervision score at placement midpoint: 0.29 ± 0.32; deviant peers score at 1 year follow up: -0.64 ± 0.51 Behavioural outcome 2 Mean self-reported delinquency score at 1 year follow up: 4.58 ± 7.77 Behavioural outcome 3 At two years follow up, the number with no criminal referrals for violent offenses: 29 (78%); number with 1 referral: 6 (16%); number with 2 or more referrals: 2 (5%), number with one or more referrals: 8 (21%). Adjusting for assessment wave; age at placement; age at first arrest; prior arrests; and prior delinquency at baseline, being in the MTFC group was significantly associated with fewer official violent referrals (beta coefficient -0.81, p-value <0.05) and less self-reported violence (beta coefficient -1.11, p-value <0.001) over 2 year follow up.

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.

	Split between study groups	MTFC = 37 GC = 42
	Loss to follow-up	MTFC = 7 GC = 19
	Outcome measures	Behavioural outcome 1 mean criminal referrals index score at 1 year follow up: 3.70 ± 2.74 Relationship outcome Family management and deviant peer association mean scores. Positive adult-youth relationship score at placement midpoint: -0.26 ± 0.70. Discipline score at placement midpoint: -0.52 ± 0.76; Supervision score at placement midpoint: -0.26 ± 0.61; deviant peers score at 1 year follow up: 0.75 ± 0.62 Behavioural outcome 2 Mean self-reported delinquency score at 1 year follow up: 10.60 ± 11.00 Behavioural outcome 3 Over 2 year follow up, the number of participants who received no criminal referrals for violent offenses: 26 (62%); 1 referral: 6 (14%); 2 or more referrals: 10 (24%). number with one or more referrals: 16 (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 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 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 2007/2011

Study type	Randomised controlled trial (RCT) Also see Fisher 2011 (RQ2.1/1.1) results extracted
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	Age 3 - 5 years old 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.
Sample size	117
Split between study groups	MTFC-P = 57 Routine Foster Care = 60
Loss to follow-up	Retention rates for the RFC group were 93.3% (n = 56) at T2, 88.3% (n= 53) at T3, 83.3% (n = 50) at T4, and 70.0% (n = 42) at T5. Retention rates for the MTFC-P group were 100% (n = 57) at T2 and T3, 93.0% (n = 53) at T4, and 86.0% (n = 49) at T5.
% Female	Not reported for total sample

Mean age (SD)	not reported for total sample
Condition specific characteristics	Non-white ethnicity 11% time in care On average, children had spent 171 days in foster care prior to baseline
Outcome measures	Relationship outcome Parent Attachment Diary (PAD): The foster parents indicated how the child responded to being physically hurt and frightened (14 items) and how the child responded to being separated (13 items). These items were coded as one of three attachment-related behaviors: secure (e.g., proximity seeking or contact maintenance such as moving toward or signaling to the caregiver), avoidant (e.g., ignoring or moving away from the caregiver), or resistant (e.g., displaying angry behaviors toward the caregiver). At each assessment, the foster parents used a checklist of situations to record their child's typical response to each situation for the prior 2 weeks. Percent of secure behavior was calculated by summing the number of secure behaviors and dividing by the total number of behaviors reported. We used the same method to calculate percent of avoidant behavior and percent of resistant behavior.
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)
% Female	50.9%
Mean age (SD)	4.54 ± 0.86
Condition specific characteristics	Non-white ethnicity 17.5% Emotional or Behavioural disorders Parent Daily Report Score, mean: 22.31 ± 13.50
Outcome measures	Relationship outcome Parent Attachment Diary (PAD), mean percent of attachment at 3 months/6 months/9 months/12 months follow up: secure behaviour: 0.67 ± 0.33/0.67 ± 0.36/0.70 ± 0.36/0.71 ± 0.33; avoidant behaviour: 0.15 ± 0.25/0.22 ± 0.30/0.13 ± 0.24/0.15 ± 0.22; resistant behaviour: 0.12 ± 0.15/0.06 ± 0.12/0.08 ± 0.15/0.05 ± 0.12. MTFC intervention group was associated with significant increases in secure behaviour and significant decreases in avoidant behaviour relative to children in regular foster care, both groups experiences decreases in resistant behaviour (beta coefficient 0.18 ± 0.16/-0.13 ± 0.12/0.01 ± 0.08, respectively)

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% Emotional or Behavioural disorders Parent Daily Report score, mean: 18.41 ± 12.85
	Outcome measures	Relationship outcome Parent Attachment Diary (PAD), mean percent of attachment at 3 months/6 months/9 months/12 months follow up: secure behaviour: 0.66 ± 0.33/0.74 ± 0.31/0.65 ± 0.41/0.66 ± 0.33; avoidant behaviour: 0.16 ± 0.26/0.16 ± 0.25/0.23 ± 0.34/0.25 ± 0.30; resistant behaviour: 0.10 ± 0.14/0.08 ± 0.16/0.02 ± 0.08/0.05 ± 0.09
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** **Risk of bias judgement** Low **Overall Directness** **Partially applicable**	

	(USA study)

Green 2014

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.
Sample size	60 families
Split between study groups	SCT = 32 Waitlist = 28
Loss to follow-up	SCT = 7 Waitlist = 2
Outcome measures	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
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 ± 3.92
	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 ± 3.92
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)

Job 2020

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
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

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Low
	Overall Directness	Indirectly applicable *(Non-UK study)*

Kim 2011/Smith 2011

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.)	

Kothari 2017

Study type	Randomised controlled trial (RCT)

Study location	USA
Study setting	Sibling youth in foster care
Study dates	not reported (approximately 2012)
Duration of follow-up	18 months, with 6 monthly data collection
Sources of funding	National Institute of Mental Health
Inclusion criteria	Age older siblings between the ages of 11 and 15 with a younger sibling up to four years younger Care situation been in formal foster care for over one quarter. Language English Location residing in the three-county Portland metropolitan region
Exclusion criteria	Caregivers looked after children who absconded health problems "medically fragile" behavioural needs "behavioural issues" Mental health severe mental health problems
Sample size	328

Split between study groups	SIBS-FC = 168 Care as usual = 160
Loss to follow-up	SIBS-FC = 31 Care as usual = 36
% Female	Older siblings: 51% Younger siblings: 49%
Mean age (SD)	Older siblings: 13.1 ± 1.4 years Younger siblings: 10.7 ± 1.7 years
Condition specific characteristics	Non-white ethnicity 60% for older and younger siblings time in care older sibling: 30.2 ± 35.1 months; younger sibling: 29.0 ± 34.7 months Type of care older sibling: non-relative foster parent 57%; kinship care 46%; biological parents 11%; other caregiver 7%. Younger sibling: non-relative foster parent 55%; kinship care 28%; biological parents 12%; other caregiver 6%. Living situation Siblings living together 73%, living apart 27%
Outcome measures	Relationship outcome Multi-agent construct of sibling relationship quality (MAC-SRQ) at 18 months, mean score. The multi-agent construct of sibling relationship quality (MAC-SRQ) is an original measure that contains seven items gathered from four respondents (youth, foster parent, assessor, and video coder). Two of the items were youth reports ("How good has your relationship to sibling in study been?" on a 10-point scale; and the "Total Sum of the Sibling Problem Inventory Problem list," with a range of 0–22 common sibling problems). The foster parent was the respondent for one global item ("How good has youth's relationship to sibling in study been?" on a 10-point scale). The remaining four items were gathered from the project staff assessors/coders. Specifically, two items were from youth assessors ("Overall siblings relationship rating" on a 1–5 scale was from the lead assessor of the SIT; and "How often do you think this youth is aggressive with his/her sibling?" on a 1–5 scale was from the lead assessor of the youth assessment). The other two items were from video coders ("Overall siblings relationship rating" on a 1–5 scale; and "How bonded or close are these two siblings?" on a 1–3 scale, completed during the SIT). All items had face validity, and negatively worded items were reverse coded so that larger numbers equaled a more positive score for all items. Item responses were then transformed into z scores. Cronbach's alphas demonstrated good internal consistency across the four major waves.

	relationship outcome 2 Sibling relationship questionnaire (SRQ) mean score at 18 months follow up. The Sibling Relationship Questionnaire (SRQ) was adapted from an instrument originally developed to measure differing levels of closeness in friendships (Ginsberg and Gottman, 1986). The SRQ was included in the battery of instruments youth completed during the assessment interview at each major wave. The SRQ is a 72-item questionnaire designed to measure affection, inclusion, and control between siblings, and has nine subscales (e.g., "I would say my brother/sister is someone who. . .makes me feel needed; . . .is someone I often turn to for advice"). Each youth responded to statements on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). For this study, the Total SRQ score was used. Reliability for the Total SRQ measure was high across the four major waves. relationship outcome 3 Sibling interaction quality (SIQ) mean score at 18 months follow up. The Sibling Interaction Quality (SIQ) measure is a 13-item measure developed prior to the study by the investigator team and designed to examine how easy or difficult it is for youth in middle childhood and adolescence to do certain activities with their sibling. The SIQ was also included in the battery of instruments youth completed during the assessment interview at each major wave. In the instructions, youth were told these items are things some siblingsdo.Childrenandyouthratedstatements (e.g., "Activities we cando together"; "Helpmy sibling withaproblem"; "Do fun things together") using a 4-point scale. For each statement, youth were asked to pick whether it would be Very Hard, Hard, Easy, or Very Easy for them to do. A weighted sum score was created if at least 10 of the 13 items were completed. Since each item was rated on a 1–4 point scale, the total range on the SIQ score was 13–52. Items had face validity, and this measure also correlated with a validated measures of sibling relationship quality as well as self-efficacy. Reliability was high across the four major waves.
Study Arms	**Supporting siblings in foster care (SIBS-FC) (N = 168)** The 12-session sibling intervention curriculum was developed to enhance sibling relationships for foster youth sibling dyads by supporting socially skilled behavior in individual siblings and reducing sibling dyad-based conflict. The SIBS-FC intervention was delivered in neighborhood offices, foster homes, project offices, and community locations that were convenient for siblings and their foster families. The 12-session curriculum included eight skill-building sessions and four community-based activities, providing opportunities for skills-based practice in real-world settings. Activity-based sessions were designed to reinforce social and self-regulatory skills that operate in sibling relationships and that may be critical for development (including cooperation, communication, emotional self-regulation, problem solving, conflict abatement, and social relationship repair strategies). Two sessions provided specific practice in approaching adults for support (e.g., foster parents, caseworkers, relatives, attorneys, and judges) to facilitate the youth-adult ally relationship and to create opportunities for the siblings to problem solve collaboratively. Intervention activities were designed to be age-appropriate, and emphasized discovery and learning about specific behavior-change strategies through active engagement rather than talking and listening. MSW-level coaches would describe, model, and reinforce critical social relational skills during natural sibling interactions. Typically, a skill would be introduced to the sibling dyad and practiced in one session, then revisited in later sessions and during community activities. When introducing new skills, coaches would explain and demonstrate the skill, then relate the skill to the lives of each sibling by asking them to explain how they might have used it in the past and the ways in which they might use the skill in the future. Supervised games and role-plays were then used to help youth practice those skills with their sibling. To facilitate generalization of skills to both the home and peer environments, weekly home activities and tracking assignments were assigned to siblings at the end of each skill-building

session. For youth who lived in the same home, these activities were relatively easy to complete. For youth who lived in separate homes, the weekly activity was often conducted over the phone or as a part of their DHS-supervised visits with their parents/family. Coaches checked in weekly with youth and parents/caregivers to answer questions and promote completion of these assignments. In addition to the eight skill-building sessions,the SIBS-FC program included four sessions with community activities that were planned by the siblings. Coaches would accompany the youth and facilitate the community activity. These activities were designed to take place in a suitable location (e.g., a bowling alley, amusement park, roller skating rink, or mall) to allow siblings to actively practice newly acquired skills in a real-world setting. Moreover, community activities provided opportunities for project-enrolled youth to invite one or more of their siblings who were not enrolled in the study to participate. Coaches completed fidelity forms after each session to indicate the extentto which content and specific curricular skills were covered, the number of times skills were covered across sessions, and older and younger siblings' comprehension and engagement. Results demonstrated that intervention coaches reported that they covered curricularized content with a high degree of fidelity, and that older and younger siblings in the SIBS-FC intervention had high levels of comprehension of and engagement with the material. Coaches also reported that both older and younger siblings demonstrated these skills in community activities. In addition, youth also reported that they enjoyed their time in the sibling program.

% Female	Older siblings: 42% Younger siblings: 39%
Mean age (SD)	Older siblings: 13.1 ± 1.4 years Younger siblings: 10.7 ± 1.7 years
Condition specific characteristics	Non-white ethnicity 64% for older and 66% for younger siblings time in care older sibling: 23.5 ± 27.2 months; younger sibling: 22.7 ± 27.3 months Type of care older sibling: non-relative foster parent 51%; kinship care 31%; biological parents 13%; other caregiver 5%. Younger sibling: non-relative foster parent 55%; kinship care 31%; biological parents 10%; other caregiver 5%.

	Living situation Siblings living together 71%, living apart 29%
Outcome measures	Relationship outcome Multi-agent construct of sibling relationship quality (MAC-SRQ) at 18 months, mean score: beta coefficient 0.275 ± 0.208; adjusted for non-white ethnicity, gender, age, living apart, younger/older sibling relationship outcome 2 Sibling relationship questionnaire (SRQ) mean score at 18 months follow up: 0.083 ± 0.202; adjusted for non-white ethnicity, gender, age, living apart, younger/older sibling relationship outcome 3 Sibling interaction quality (SIQ) mean score at 18 months follow up: 2.36 ± 0.199; adjusted for non-white ethnicity, gender, age, living apart, younger/older sibling

Foster care as usual (N = 160)

Youth randomized to the control group received care as-usual foster services, including contact with caseworker and regular visitation with biological parents when deemed appropriate by court officials and DHS. All participating families were provided opportunities to participate in parent management training throughout the study, although only 11.3% of families included a caregiver who attended one or more sessions.

% Female	Older siblings: 53% Younger siblings: 51%
Mean age (SD)	Older siblings: 13.1 ± 1.5 years Younger siblings: 10.6 ± 1.8 years
Condition specific characteristics	Non-white ethnicity 73% for older and 70% for younger siblings time in care older sibling: 37.1 ± 40.8 months; younger sibling: 35.8 ± 40.3 months

	Type of care older sibling: non-relative foster parent 63%; kinship care 25%; biological parents 9%; other caregiver 4%. Younger sibling: non-relative foster parent 55%; kinship care 25%; biological parents 14%; other caregiver 6%. Living situation Siblings living together 74%, living apart 26%
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)

Landsman 2014/Boel-Studt 2017

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Children in foster care
Study dates	May 2009 to Feb 2012.
Duration of follow-up	3 year observation period
Sources of funding	U.S. Department of Health and Human Services, Administration for Children and Families, Children's Bureau,
Inclusion criteria	Age children ages 0–17 Care situation eferred to the state's centralized foster care placement matching program managed by Four Oaks
Sample size	243
Split between study groups	FIC = 139 Control = 123
Loss to follow-up	FIC = 10 Control = 5
% Female	47%
Mean age (SD)	9.81 ± 5.48

Condition specific characteristics	Non-white 29.9%
Outcome measures	Outcome 1 Data for this study were extracted from case records and a database that was specifically developed for this project to monitor random assignment procedures and model implementation. In addition, for children assigned to FIC the database served as the primary data source for documenting case progress and outcomes. DHS case files served as the primary data source for children in the control group. To extract data fromcase files of children in the control group the research team traveled to county DHS offices that were within the service area included in the project. Case file reading took place at two time points over the course of the three-year study period. We created a data collection instrument to ensure that the information extracted from the DHS case records was comparable to the data that was extracted from the project database. This instrument was piloted in one county office and revised. Case file reading was completed by two of the authors and two research assistants who were trained in the data collection procedures. In addition, inter-rater coding was used at each site, representing 15.25% of cases. Any discrepancies were discussed between the two raters and resolved. Placement stability 1 Placement changes over 3 year observation period: authors calculated the number of placement disruptions from the date of random assignment through case closure or the end of the study. Permanency 1 Type of permanent placement over 3 year observation period: Physical permanency was determined based on the type of placement to which the child was discharged or where the child was living at the final observation period. To compare differences in the time it took for children to achieve permanency, the number of days that elapsed between the date of random assignment and placement in a setting that was planned to be the child's permanent home was recorded. Permanency 2 Maltreatment report over 3 year observation period: child maltreatment data provided by DHS to identify whether each child had a confirmed maltreatment report following the date of random assignment. Relational outcome 1 Relational permanency over 3 year observation period: Relational permanency wasmeasured as a 1/0 variable and was based on qualitative data extracted from case records. A child was coded “1” if therewas evidence in the case record of continued contact and emotional support from at least one adult. A child was coded “0” if there was no evidence that the child had ongoing contact and emotional support from at least one adult consistently. Authors recognized the inherent subjectivity of this measure, but there was sufficient detail in the case records—including case notes, permanency plans, family team meeting minutes, and court reports—to make this assessment. To ensure reliability, two researchers examined the coding of this measure, with nearly complete agreement.
Study arms	**Family Finding Intervention (N = 130)** The theory of change underlying family finding and engagement asserts that by focusing efforts on identifying and nurturing a natural support network for each child in care, meeting frequently to sustain a sense of urgency around permanency, providing opportunities for relationship-building, and providing post-placement support, this expanded support network will result in shorter time to permanency, a greater likelihood of permanent placement with family, and improved child safety. FIC was conceptualized in five key components: Referral; Information Gathering, Documentation and Search and Identification; Contact, Assessment and Engagement; Family Ties: Transition to Family; and Documentation. The goal of the Referral stage is to expedite family finding through a seamless randomization process,

with quick turnaround times for approving and assigning cases. At the Information Gathering stage, the focus is on identifying and searching for all potential relatives and kin and creating an individualized team and a process for facilitating permanency. The Contact, Assessment and Engagement stage seeks to work with family and supports on relationship building and to prepare the child and family for successful visits with family. By the Family Ties stage, the emphasis is on transitioning decision-making to the family and strengthening plans for sustained family connection after case closure. Documentation represents the provision of ongoing feedback and continuous assessment of process and outcomes. Although these stages are presented as discrete and sequentially related, they occurred simultaneously and in an interrelated way. Children were assigned a DHS worker and each received standard child welfare services. As well as Children in FIC were additionally assigned a Search and Engagement Specialist (S&E specialist) who provided intensive family finding and engagement services.

% Female	53.6%
Mean age (SD)	9.41 ± 5.24
Condition specific characteristics	Exploitation or trafficking Physical abuse: 16.7%; Psychological abuse 1.8%; Sexual abuse 6.1%; neglect 67.5% Placement changes prior placements: 2.40 ± 3.13 Non-white 30.4%
Outcome measures	Placement stability 1 Placement changes over 3 year observation period: 2.20 ± 2.25 placement changes. Controlling for gender FFI was not significantly associated with reduced placement changes: beta -0.13 ± 0.61 Permanency 1 Type of placement over 3 year observation period n(%): birth home 36 (28.8%); relative 22 (17.6%); relative adoption 16 (12.8%); nonrelative adoption 16 (12.8%); foster home 28 (22.4%); group care 16 (12.8%); aged out 6 (4.8%). Controlling for gender family finding intervention, beta coefficient: birth home -0.19 ± 0.55; relative 0.77 ± 0.80; relative adoption ; nonrelative adoption 2.16 ± 1.51; foster home 0.32 ± 0.67; group care 0.45 ± 0.82; aged out -1.06 ± 1.00 Permanency 2

	In a placement planned for permanency by the last observation: 59.2%; Analysis of the survival curves showed that for both groups the probability of not entering a permanent placement decreased as days of service increased. Difference between groups was not significant. limited to participants with history of congregate care, intensive family finding was not significantly associated with physical permanency over follow up: beta 0.73 ± 0.78 for being in the control group with congregate care Relational outcome 1 Relational permanency over 3 year observation period: beta 0.87 ± 0.61. Limited to participants with history of congregate care, intensive family finding was significantly associated with relational permanency over follow up: beta -0.87 ± 0.78 for being in the control group with congregate care adverse event Maltreatment report over 3 year observation period: 26 (22.8%): beta 0.26 ± 0.67

Standard Child Welfare Services (N = 123)

Children were assigned a DHS worker and each received standard child welfare services. because all children in the study were active child welfare cases, both the experimental and control groups received DHS casework services and other therapeutic and supportive services based on individual needs. FIC services were viewed as an enhancement, not a substitute for other child welfare services.

% Female	53.6%
Mean age (SD)	9.41 ± 5.24
Condition specific characteristics	Exploitation or trafficking Physical abuse: 16.7%; Psychological abuse 1.8%; Sexual abuse 6.1%; neglect 67.5% Placement changes prior placements: 2.40 ± 3.13 Non-white 30.4%
Outcome measures	Placement stability 1 Placement changes over 3 year observation period: 2.28 ± 2.54 placement changes Permanency 1 Type of permanent placement over 3 year observation period n(%): birth home 39 (33.1%); relative 10 (8.5%); relative adoption 2 (1.7%); nonrelative adoption 21 (17.8%); foster home 19 (16.1%); group care 11 (9.3%); aged out 14 (11.9%)

	Permanency 2 In a placement planned for permanency by the last observation: 60% Relational outcome 1 Relational permanency over 3 year observation period: 73 (64.6%) adverse event Maltreatment report over 3 year observation period: 19 (18.4%)
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** Some concerns **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** High (No details of the randomization method. There are slight differences in gender between the arms. No allocation concealment. No blinding. Although randomization was prospective, data collection was retrospective via records. Some of the outcomes are subjective.) **Overall Directness** Partially applicable

	(USA study)

Lee 2016a/b

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Children in non-parental care. Head start is a preschool program that provides comprehensive services (educational and health-focussed) to both low-income children and their families. Head Start is Centre-based.
Study dates	Head Start Impact Study (HSIS): based on the random assignment of children and families entering Head Start at the start of the 2002 - 03 programme year.
Duration of follow-up	HSIS recruited three to four year olds. In the current study, reading and maths scores were measured at age five to six.
Sources of funding	Not reported
Inclusion criteria	Care setting Children living with non-biological parents, including foster parents, grandparents, or other relatives Other Included in the Head Start Impact Study. The Head Start Impact Study is based on a nationally representative sample of both Head Start programs and children. First time applicants to Head Start in fall 2002 were randomly selected from a nationally representative sample of Head Start programs.
Exclusion criteria	Care setting Children living with step-parents or who were adopted
Sample size	162
Split between study groups	65 were not enrolled in Head Start, 97 were enrolled in Head Start

Loss to follow-up	Unclear how many eligible children were lost to follow up over the course of the Head Start Impact Study.
% Female	48%
Mean age (SD)	3.4 ± 0.5 years
Condition specific characteristics	% with disabilities; speech, language and communication needs; or special education needs 14% Non-white ethnicity 62% Type of care relative care 90%
Outcome measures	Educational outcomes 1 Maths Scores at 5-6 years of age: the Woodcock-Johnson III Tests of Achievement, Math Reasoning. Overall measurement of mathematical knowledge and reasoning which includes: mathematical problem solving, vocabulary and analysis. Educational outcomes 2 Reading scores at 5-6 years of age: the Woodcock-Johnson III Tests of Achievement, Oral Comprehension. Test measures child's ability to comprehend a short spoken passage and provide a missing word based on syntactic and semantic clues. Educational outcomes 3 Caregiver-rated positive approach to learning at 5-6 years of age. Parents were asked to rate their child's positive approaches to learning (Achenbach, Edelbrock, & Howell, 1987). Positive approaches to learning scale addressed curiosity, imagination, openness to new tasks and challenges, and having a positive attitude about gaining new knowledge and skills. Social outcomes 1 Child-teacher relationship at 5-6 years of age. Based on the Robert Pianta scales (Pianta, 1996), teachers were also asked to rate the child–teacher relationship. Behaviour outcomes 1 Teacher-rated aggressive score at 5 to 6 years of age. Teachers rated children's aggressiveness scores based on the Adjustment Scales for Preschool Intervention (ASPI) Behaviour outcomes 2 Teacher-rated hyperactive score at 5 to 6 years of age. Teachers rated children's hyperactive scores based on the Adjustment Scales for Preschool Intervention (ASPI)
Study arms	Head Start (N = 97)

Head Start is a program of the United States Department of Health and Human Services that provides comprehensive early childhood services to low-income children and families. Head Start's goal is to boost the school readiness of low income children. Based on a "whole child" model, the program provides comprehensive services that include preschool education; medical, dental, and mental health care; nutrition services; and efforts to help parents foster their child's development. Head Start services are designed to be responsive to each child's and family's ethnic, cultural, and linguistic heritage.

Split between study groups	65 were not enrolled in Head Start, 97 were enrolled in Head Start
Loss to follow-up	Unclear how many eligible children were lost to follow up over the course of the Head Start Impact Study.
% Female	53%
Mean age (SD)	3.4 ± 0.5 years
Condition specific characteristics	% with disabilities; speech, language and communication needs; or special education needs 12% Non-white ethnicity 55% Type of care relative care 91%
Outcome measures	Educational outcomes 1 Maths Score (for girls): mean 97.3 ± 2.33; Maths score (for boys): mean 87.5 ± 2.49 Educational outcomes 2 Reading scores (for girls): mean 101.7 ± 1.88; Reading scores (for boys): mean 97.7 ± 2.66 Educational outcomes 3 Association between being in the intervention group and caregiver-rated positive approach to learning at 5 to 6 years of age: β 0.11 (-0.01 to 0.23) (adjusted for age, gender, special educational needs, lower cognitive skills at baseline, ethnicity, education, family income, relative care, parental book reading). Social outcomes 1

		Association between being in the intervention group and child-teacher relationship at 5 to 6 years of age: β -0.30 (-1.01 to 0.41) (adjusted for age, gender, special educational needs, lower cognitive skills at baseline, ethnicity, education, family income, relative care, parental book reading). Behavioural outcomes 1 Association between being in the intervention group and teacher-rated aggressive score at 5 to 6 years of age: β -1.57 (-1.41 to 4.55) (adjusted for age, gender, special educational needs, lower cognitive skills at baseline, ethnicity, education, family income, relative care, parental book reading). Behavioural outcomes Association between being in the intervention group and teacher-rated hyperactive score at 5 to 6 years of age: β -3.28 (-6.26 to -0.30) (adjusted for age, gender, special educational needs, lower cognitive skills at baseline, ethnicity, education, family income, relative care, parental book reading).

Not enrolled in Head Start (N = 65)

A comparison group of children living with non-biological parents who were included in the Head Start Impact Study and were not enrolled in Head Start. Children who were placed in the control or comparison group were allowed to enroll in other non-parental care or non-Head Start child care or programs selected by their parents. They could remain at home in parent care, or enroll in a child care or preschool program. Consequently, the impact of Head Start was determined by a comparison to a mixture of alternative care settings rather than against a situation in which children were artificially prevented from obtaining child care or early education programs outside of their home.

% Female	42%
Condition specific characteristics	% with disabilities; speech, language and communication needs; or special education needs 15% Non-white ethnicity 74% Type of care relative care 89%
Outcome measures	Educational outcomes 1 Maths Scores (for girls): mean 92.9 ± 3.29; Maths scores (for boys): mean 95.9 ± 2.73 Educational outcomes 2 Reading scores (for girls): mean 96.9 ± 2.01; Reading scores (for boys): mean 100.9 ± 2.21

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 High Domain 4. Bias in measurement of the outcome High Domain 5. Bias in selection of the reported result High Overall bias and Directness Risk of bias judgement High

Leve 2007/2005a/Chamberlain 2007

Study type	Randomised controlled trial (RCT) see also Chamberlain 2007: Multidimensional Treatment Foster Care for Girls in the Juvenile Justice System: 2-Year Follow-Up of a Randomized Clinical Trial; Leve 2005: Intervention Outcomes for Girls Referred from Juvenile Justice: Effects on Delinquency
Study location	USA
Study setting	Group care and foster care settings

Study dates	1997 to 2002
Duration of follow-up	12 months
Sources of funding	Support for this research was provided by the Oregon Youth Authority and by the following grants: MH54257, NIMH, U.S. PHS; DA15208, NIDA, U.S. PHS; and DA17592, NIDA, U.S. PHS.
Inclusion criteria	Age 13 to 17 years old Care situation Placed in out of home care within 12 months following referral Criminal characteristic Referred by juvenile court judges in Oregon State. At least one criminal referral in the past 12 months Pregnancy Not currently pregnant Gender female
Sample size	81
Split between study groups	37 were randomised to MTFC, 44 to Group Care
Loss to follow-up	90% of the sample participated at 3–6 months postbaseline, 88% of the sample participated at 12 months postbaseline, and 12-month lockup data were available for 98% of the sample.
% Female	100%
Mean age (SD)	15.3 ± 1.1 years

Condition specific characteristics	At risk or victims of exploitation 88% had documented physical abuse and 69% had documented sexual abuse Behavior that challenges Prior to entering the study, the average lifetime criminal referrals per girl was 11.9 (SD = 8.9), and 70% of the girls had committed at least one felony Non-white ethnicity 26% Care characteristics At baseline, 68% of the girls had been residing in single-parent families,
Outcome measures	Educational outcome 1 Homework completion: caregivers and girls reported independently at baseline and at 12 months postbaseline on the number of days in the last week that the girls spent at least 30 min/day on homework. In the second measure, caregivers and girls reported on whether or not the girls did homework that day (0 [No]; 1 [Yes]) via three PDR phone interviews conducted within a 1-week period at 3–6 months postbaseline. Scores were aggregated within rater across calls. Composite scores were formed for each of the educational engagement variables by aggregating caregiver and girl reports. Educational outcome 2 School attendance: at 12-months post baseline, caregivers and girls reported of how often the girls attended school (1 [Not attending], 2 [Attending very infrequently], 3 [Attending infrequently], 4 [Attending more often than not], 5 [Attending regularly], or 6 [Attending 100% of the time]). Composite scores were formed for each of the educational engagement variables by aggregating caregiver and girl reports. Criminal outcome 1 Delinquency Construct. A multiple-method delinquency construct was computed from three indicators assessing behavior during the prior 12 months: number of criminal referrals, number of days in locked settings, and self-reported delinquency. Criminal outcome 2 Criminal Referrals: Criminal referrals were collected from state police records and circuit court data, which have been found to be reliable indicators of externalizing behavior (Capaldi & Stoolmiller, 1999). Criminal outcome 3 Number of days spent in locked settings was measured by girls' report of total days spent in detention, correctional facilities, jail, or prison. Criminal outcome 4 Self-reported delinquency was measured with the Elliott General Delinquency Scale (Elliott, Huizinga, & Ageton, 1985). The 21-item subscale records the number of times girls report violating laws during the preceding 12 months. Criminal outcome 4 Caregiver-reported delinquency (CBCL) at 12 months follow up: The girls' current caregiver completed the Child Behavior Checklist (CBCL; Achenbach, 1991) at the BL and FU assessments. The delinquency subscale was used (13 items assessing behaviors such as stealing, truancy, and fire setting). Reliability was acceptable.
Study Arms	**Multidimensional Treatment Foster Care (MTFC) (N = 37)**

	The MTFC model was individualized based on the girls' behavioral problems and on aftercare considerations. The program supervisor placed girls individually in foster homes with trained MTFC foster parents. The program supervisor worked with juvenile justice and school systems and supervised all other MTFC staff involved with the girls and families (e.g., foster parents, skills trainers, and family and individual therapists). Youth behaviors were tracked via the Parent Daily Report Checklist, which is a brief telephone interview conducted each weekday to track foster parents stress level, girl behavior at home and in school, and girl performance on the point-and-level system. Foster parents were trained and supervised to consistently reinforce high rates of positive and normative youth behaviors. When problem behaviors were identified, the program supervisor and foster parents worked to identify a nondegrading definition of the behavior. Typically, the prosocial alternative to the problem behavior was identified (e.g., accepting feedback without comment); once a behavior had been identified and defined for a particular girl, it was included on the point-and-level system that the foster parents implemented at home. The program supervisor coached the foster parents to take points away for all negative behaviors and to give points for all prosocial or adaptive behaviors. An individual therapist met weekly with each girl to focus on problems at school, with her parents, and in the foster home. Targets for the individual therapy sessions were selected based on PDR data, the daily school cards, and the aftercare resources; efforts were then made to motivate the girl to address behaviors that appeared to be having a negative impact. The focus was on adaptive functioning and highlighting the girl's strengths. Thus, each therapist–youth dyad generated mutual definitions of problematic life areas and selected behavioral areas to focus on. Coordinated psychiatric consultation was available when medication management was needed. To help generalize developing skills to environments outside of the foster home, each girl was assigned a skills trainer (typically a recent college graduate), who helped the girl to identify and participate in community activities of interest. The skills trainer also addressed specific social skills by coaching or reinforcing the girl with adaptive ways to respond to specific situations. Once a behavioral target had been identified and clearly defined, the skills trainer attempted to help the girl to expand her behavioral options through role-plays in hypothetical situations and real-world contexts. In many cases, the skills trainer offered to teach appropriate behaviors to prevent the girl from losing points or to help her in earning a desired reinforcer. This approach helped to establish a collaborative relationship. As the skills trainer worked with the youth to develop more adaptive individual behaviors, the family therapist worked with the youth's family to identify prosocial and problem behaviors occurring in the family context and to define structured responses to these behaviors. The family therapist worked with the aftercare resource (typically a biological parent) to improve their supervision, reinforcement, and limit-setting methods. Parents were taught to use the point-and-level system to provide feedback and consequences for youth behavior using brief, nonemotional reactions to misbehavior, thus avoiding long discussions of the circumstances surrounding the behavior.

Study type	Randomised controlled trial (RCT)
% Female	100%
Mean age (SD)	Not reported
Outcome measures	Educational outcome 1 Homework completion score at 3-6 months post-intervention: mean 1.71 ± 1.07; Homework completion score at 12 months post-intervention: mean 3.47 ± 2.44. In multivariable analysis adjusting for baseline homework score, girls receiving MTFC spend significantly longer on homework (P<0.01) Educational outcome 2 School attendance at 12-months post baseline (mean score): 5.48 ± 0.77 Criminal outcome 1 Delinquency construct score at 12 months/24 months follow up: 0.22 ± 0.17/0.12 ± 0.16. When age was controlled, MTFC was associated with greater reductions in delinquency compared with GC (beta coefficient -0.36, p <.01). When initial status and age were controlled, MTFC girls obtained a greater rate of decrease in delinquency over the course of the study relative to GC girls (beta coefficient -0.42, p <0.01). Criminal outcome 2 Number of criminal referrals at 12 months, mean: 0.76 ± 1.14; Log number of criminal referrals at 12 months/24 months: 0.15 ± 0.21/0.13 ± 0.18. Criminal outcome 3 number of days in locked settings at 12 months, mean: 21.70 ± 48.95. Log number of days in locked settings at 12 months/24 months follow up: 0.31 ± 0.34/0.14 ± 0.28 Criminal outcome 4 Self-reported Elliott delinquency score at 12 months, mean: 18.85 ± 19.37. Self reported Elliott General Delinquency score at 12 months/24 months follow up: 0.18 ± 0.19/0.11 ± 0.18 Criminal outcome 4 Caregiver-reported delinquency (CBCL) at 12 months follow up: 64.75 ± 9.11

Group Care control (N = 44)
Group Care (GC) is the standard intervention service provided for delinquent girls who are referred for out-of-home care. In the current study, girls randomly assigned to the GC condition took part in 1 of 19 community-based group care programs located throughout Oregon State. The programs had 2–51 youth in residence (mean = 21), 1–50 staff members (Median = 2), and on-site schooling. Although each GC program differed somewhat in its theoretical orientations, 86% of

the programs endorsed a specific treatment model, of which the primary philosophy of their program was a behavioral (70%), an eclectic (26%), or a family-style therapeutic approach (4%). Seventy percent of the programs reported delivering therapeutic services at least weekly.

Study type	Randomised controlled trial (RCT)
Duration of follow-up	12 months (24 months for criminal outcomes)
% Female	100%
Mean age (SD)	Not reported
Outcome measures	Educational outcome 1 Mean homework completion score at 3-6 months post-baseline: 1.07 ± 1.13; mean homework completion score at 12 months post baseline: 2.03 ± 2.12 Educational outcome 2 School attendance mean score at 12-months post baseline: 4.87 ± 1.33 Criminal outcome 1 Delinquency construct score at 12 months/24 months follow up: 0.30 ± 0.20/0.25 ± 0.21 Criminal outcome 2 Number of criminal referrals at 12 months, mean: 1.30 ± 1.67. Log number of criminal referrals at 12 months/24 months: 0.25 ± 0.24/0.22 ± 0.26 Criminal outcome 3 Number of days in locked settings at 12 months, mean: 56.45 ± 84.13. Log number of days in locked settings at 12 months/24 months follow up: 0.51 ± 0.38/0.42 ± 0.40 Criminal outcome 4 Self-reported Elliott delinquency scale at 12 months, mean: 15.13 ± 18.88. Self reported Elliott General Delinquency score at 12 months/24 months follow up: 0.15 ± 0.19/0.12 ± 0.16 Criminal outcome 4 Caregiver-reported delinquency (CBCL) at 12 months follow up: 70.03 ± 11.13

Risk of bias	**Domain 1: Bias arising from the randomisation process** Some concerns (Unclear how randomisation was performed or if allocation concealment) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Some concerns (Unclear if all participants assigned to their groups received their interventions as allocated. Intention to treat analysis used.) **Domain 3. Bias due to missing outcome data** High (Over 10% lost to follow up. Unclear how much additional missing outcome data or if this differed between comparison groups) **Domain 4. Bias in measurement of the outcome** Some concerns (Quite crude measures used for homework completion and school attendance. Unclear if outcome assessors were aware of intervention group. Possibility that reporting of outcomes was affected by knowledge of intervention group.) **Domain 5. Bias in selection of the reported result** Some concerns (In sufficient information to convince that trial was conducted according to a prespecified plan that was finalised before unblinded outcome data was available.) **Overall bias and Directness** **Risk of bias judgement** High **Overall Directness** This question has not yet been answered.

Leve 2005b

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Group care and foster care settings
Study dates	1997 to 2002
Duration of follow-up	12 months
Sources of funding	National Institute of Mental Health, US Public Health Service, National Institute for Drug Abuse
Inclusion criteria	Age 12 to 17 years old Care situation referred for out-of-home care due to problems with chronic delinquency by juvenile court judges in the state of Oregon
Sample size	153
Split between study groups	MTFC = 73 Group Care = 80
Loss to follow-up	data on delinquent peer association during treatment were available for 75% of the sample, and data on 12-month delinquent peer association were available for 94% of the sample.
% Female	53%
Mean age (SD)	Boys: 14.4 ± 1.3 years

	Girls: 15.3 ± 1.1 years
Condition specific characteristics	Non-white ethnicity 17% of the boys and 26% of the girls Criminal characteristics Prior to entering the study, boys had an average of 13.5 ± 8.7 lifetime criminal referrals, and girls had an average of 11.9 ± 8.9 lifetime criminal referrals.
Outcome measures	Relationship outcome Delinquent Peer Association at the 12 month follow up: Association with delinquent peers was measured at the 12-month assessment via self-report and caregiver report. Youth completed the Describing Friends Questionnaire (DFQ; Capaldi & Dishion, 1985), which assesses the extent to which youth associate with friends who engage in delinquent activities. Each youth indicated how many of their friends engaged in 13 different antisocial activities (e.g., cheating on tests, stealing, and getting drunk) during the prior 6-month period on a scale from 1 (none of my friends) to 5 (all of my friends). Interitem alphas were acceptable (.92 for boys and .94 for girls). The 13 items were aggregated into a self-report peer delinquency scale. relationship outcome 2 Delinquent peer association (CBCL) at 12 months follow up: Caregivers completed the Child Behavior Checklist (CBCL; Achenbach, 1991) at the 12-month assessment. The CBCL is an empirically derived measure of youth's behavior problems; caregivers rated the youth on 112 behavior problems on a scale ranging from 0 (not true) to 2 (very true or often true). One item, "hangs out with kids who get in trouble," was used in the present study. relationship outcome 3 Delinquent peer association (Overt-Covert Aggression Questionnaire) at 12 months follow up: A second caregiver-report item, "hangs out with kids who steal," rated on a scale ranging from 1 (not true) to 3 (often true), was drawn from the Overt-Covert Aggression Questionnaire (Capaldi & Patterson, 1989). Relationship outcome 4 Delinquent peer association (construct) at 12 months follow up: The youth's association with delinquent peers while living in the intervention setting was measured 3–6 months postbaseline using an aggregate of youth and caregiver reports. The following variables were rated on Likert-type scales and then standardized and aggregated to form a delinquent peers construct for the intervention setting (boys' α = .82; girls' α = .60): (a) youth selfreport on how frequently they hang out with kids who steal, (b) youth self-report on how frequently they hang out with peers who misbehave, (c) youth self-report on how frequently they hang out with peers who behave well (reverse coded), (d) youth self-report on how much they are influenced by negative peers (single item asked in three to five daily telephone interviews and aggregated across the calls), and (e) caregiver report on how much the youth is influenced by negative peers (single item asked across three to five daily telephone interviews and aggregated across the calls).
Study Arms	**Multidimensional Treatment Foster Care (MTFC) (N = 73)** The MTFC model was individualized based on the child's behavioral problems and on aftercare considerations. The program supervisor placed children individually in foster homes with trained MTFC foster parents. The program supervisor worked with juvenile justice and school systems and supervised all other MTFC staff involved with the children and families (e.g., foster parents, skills trainers, and family and individual therapists). Youth behaviors were tracked via the Parent Daily Report Checklist, which is a brief telephone interview conducted each weekday to track foster parents stress level, child behavior at home and in school, and child performance on the point-and-level system. Foster parents were

trained and supervised to consistently reinforce high rates of positive and normative youth behaviors. When problem behaviors were identified, the program supervisor and foster parents worked to identify a nondegrading definition of the behavior. Typically, the prosocial alternative to the problem behavior was identified (e.g., accepting feedback without comment); once a behavior had been identified and defined for a particular child, it was included on the point-and-level system that the foster parents implemented at home. The program supervisor coached the foster parents to take points away for all negative behaviors and to give points for all prosocial or adaptive behaviors. An individual therapist met weekly with each child to focus on problems at school, with their parents, and in the foster home. Targets for the individual therapy sessions were selected based on PDR data, the daily school cards, and the aftercare resources; efforts were then made to motivate the child to address behaviors that appeared to be having a negative impact. The focus was on adaptive functioning and highlighting the child's strengths. Thus, each therapist–youth dyad generated mutual definitions of problematic life areas and selected behavioral areas to focus on. Coordinated psychiatric consultation was available when medication management was needed. To help generalize developing skills to environments outside of the foster home, each child was assigned a skills trainer (typically a recent college graduate), who helped the child to identify and participate in community activities of interest. The skills trainer also addressed specific social skills by coaching or reinforcing the child with adaptive ways to respond to specific situations. Once a behavioral target had been identified and clearly defined, the skills trainer attempted to help the child to expand her behavioral options through role-plays in hypothetical situations and real-world contexts. In many cases, the skills trainer offered to teach appropriate behaviors to prevent the child from losing points or to help them in earning a desired reinforcer. This approach helped to establish a collaborative relationship. As the skills trainer worked with the youth to develop more adaptive individual behaviors, the family therapist worked with the youth’s family to identify prosocial and problem behaviors occurring in the family context and to define structured responses to these behaviors. The family therapist worked with the aftercare resource (typically a biological parent) to improve their supervision, reinforcement, and limit-setting methods. Parents were taught to use the point-and-level system to provide feedback and consequences for youth behavior using brief, nonemotional reactions to misbehavior, thus avoiding long discussions of the circumstances surrounding the behavior.

% Female	51%
Mean age (SD)	15.05 ± 1.40

Outcome measures	Relationship outcome Caregiver and youth-reported Delinquent Peer Association (Describing Friends Questionnaire) at the 12 month follow up, mean score: 2.09 ± 0.88 relationship outcome 2 Caregiver and youth-reported delinquent peer association (CBCL) at 12 months follow up, mean score: 2.93 ± 1.51 relationship outcome 3 Caregiver and youth-reported Delinquent peer association (Overt-Covert Aggression Questionnaire) at 12 months follow up: 2.31 ± 1.29 Relationship outcome 4 Delinquent peer association at the intervention setting (construct) at 3-6 months follow up: -0.33 ± 0.59. Association between intervention and delinquent peer association at the intervention setting (construct) at 12 months follow up: beta -0.22 p-value <0.01 adjusting for age at baseline, gender, BL delinquent peer association

Group care as usual (N = 80)
Group Care (GC) is the standard intervention service provided for delinquent child who are referred for out-of-home care. In the current study, children randomly assigned to the GC condition took part in 1 of 19 community-based group care programs located throughout Oregon State. The programs had 2–51 youth in residence (mean = 21), 1–50 staff members (Median = 2), and on-site schooling. Although each GC program differed somewhat in its theoretical orientations, 86% of the programs endorsed a specific treatment model, of which the primary philosophy of their program was a behavioral (70%), an eclectic (26%), or a family-style therapeutic approach (4%). Seventy percent of the programs reported delivering therapeutic services at least weekly.

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Group care and foster care settings
Study dates	1997 to 2002
Duration of follow-up	12 months

Sources of funding	National Institute of Mental Health, US Public Health Service, National Institute for Drug Abuse
Inclusion criteria	Age 12 to 17 years old Care situation referred for out-of-home care due to problems with chronic delinquency by juvenile court judges in the state of Oregon
Sample size	153
Split between study groups	MTFC = 73 Group Care = 80
Loss to follow-up	data on delinquent peer association during treatment were available for 75% of the sample, and data on 12-month delinquent peer association were available for 94% of the sample.
% Female	55%
Mean age (SD)	15.11 ± 1.05
Outcome measures	Relationship outcome Delinquent Peer Association (DFQ) at the 12 month follow up: 2.58 ± 0.89 relationship outcome 2 Delinquent peer association (CBCL) at 12 months follow up: 3.10 ± 0.76 relationship outcome 3 Delinquent peer association (Overt-Covert Aggression Questionnaire) at 12 months follow up: 2.83 ± 1.55 Relationship outcome 4 Delinquent peer association in the intervention setting (construct) at 3-6 months follow up: 0.36 ± 0.69

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 **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. The results section says that some data was missing but does not say how much data was missing. Some of the outcomes involve delinquent children reporting on the behavior of delinquent peers. Caregivers might not admit that children under their care are "hanging out with kids who get into trouble". The data could be quite inaccurate.) **Overall Directness** Partially applicable (USA study)

Lipscomb 2013

Study type	Randomised controlled trial (RCT)
Study location	USA

Study setting	Children in non-parental care. Head start is a preschool program that provides comprehensive services (educational and health-focussed) to both low-income children and their families.
Study dates	Head Start Impact Study (HSIS): based on the random assignment of children and families entering Head Start at the start of the 2002 - 03 programme year
Duration of follow-up	HSIS recruited three- to four- year olds. In the current study, pre-academic skills, teacher-child relationship, and behaviour problems were measured at one year follow up.
Sources of funding	None reported
Inclusion criteria	Care setting Children living with non-biological parents Other Included in the Head Start Impact Study. The Head Start Impact Study is based on a nationally representative sample of both Head Start programs and children. First time applicants to Head Start in fall 2002 were randomly selected from a nationally representative sample of Head Start programs.
Exclusion criteria	Care setting Children living with biological, adoptive, or step-parents
Sample size	253
Split between study groups	154 assigned to the Head Start group, 99 to the community control group (not enrolled in Head Start)
Loss to follow-up	Unclear how many eligible children were lost to follow up over the course of the Head Start Impact Study
% Female	47.4
Mean age (SD)	4.0 (0.6) years
Condition specific characteristics	% with disabilities; speech, language and communication needs; or special education needs 20.93% Non-white ethnicity 53 - 57% Type of care 13% foster care, 11% informal kinship care, 76% kinship care Number of placements 30.9% experienced a change in placement over the study year
Outcome measures	Educational outcomes 1 Pre-academic skills. A composite cluster of three Woodcock-Johnson III subtests – Letter-Word Identification, Spelling, and Applied Problems – was used to assess a broad constellation of children's pre-academic skills, including pre-reading and letter and word identification skills, developing mathematics skills, and early writing and spelling skills Behavioural outcomes Externalising behavior problems. Behavior problems were assessed by teacher report using the Adjustment Scales for Preschool Intervention. The following dimensions of child behavior were reported: aggressive (22 items), oppositional (11 items), and inattentive/hyperactive (10 items). To complete the ASPI, teachers were asked to select individual behavior descriptions for each child in relation to 24

	classroom situations that match descriptors of both typical and problem classroom behaviors. For example, one classroom situation was, “How is this child at free play/individual choice?” The teacher then matched each child to any of the behavior descriptions that apply, such as (a) engages in appropriate activities, (b) disturbs others’ fun, (c) wants to dominate and have his/her own way, and/or (d) starts fights and rough play. Raw scores for each dimension were based on the sum of the checked items that were associated with each subscale and were standardized according to the developer's original standardization sample. Social outcomes Teacher-child relationship. Children's relationships with their teachers were assessed with the total positive relationship scale of the Student–Teacher Relationship Scale. Teachers rated the children on 15 items, such as “If upset, this child will seek comfort from me” or “This child easily becomes angry at me.” The teachers rated the children on each item using a five-point response format ranging from 1 (definitely does not apply) to 5 (definitely applies). Total scores ranged from 15 to 75, with higher scores reflecting more positive relationships
Study arms	**Head Start (N = 154)** Head Start is a program of the United States Department of Health and Human Services that provides comprehensive early childhood services to low-income children and families. Head Start's goal is to boost the school readiness of low income children. Based on a "whole child" model, the program provides comprehensive services that include preschool education; medical, dental, and mental health care; nutrition services; and efforts to help parents foster their child's development. Head Start services are designed to be responsive to each child's and family's ethnic, cultural, and linguistic heritage.

Mean age (SD)	4.02 (0.56)
Condition specific characteristics	Non-white ethnicity 57%
Outcome measures	Educational outcomes 1 Association between Head Start enrolment and pre-academic skills at follow up: β 0.16 (0.02 to 0.30). Adjusted for Baseline preacademic skills, baseline behaviour problems, age, SEN, gender, family income to needs ratio, authoritarian caregiving, parent child reading, change in caregiver over prior year. Behavioural outcomes Association between Head Start enrolment and externalising behavior problems at 1 year follow up: β -0.18 (-0.36 to 0.00). Adjusted for baseline preacademic skills, baseline behaviour problems, age, SEN, gender, family income to needs ratio, authoritarian caregiving, parent child reading, change in caregiver over prior year Social outcomes Association between Head Start enrolment and Teacher-child relationship at 1 year follow up: β 0.30 (0.12 to 0.48). Adjusted for Baseline preacademic skills, baseline behaviour problems, age, SEN, gender, family income to needs ratio, authoritarian caregiving, parent child reading, change in caregiver over prior year

Not enrolled in Head Start (N = 99)

A comparison group of children living with non-biological parents who were included in the Head Start Impact Study and were not enrolled in Head Start. Children who were placed in the control or comparison group were allowed to enroll in other non-parental care or non-Head Start child care or programs selected by their parents. They could remain at home in parent care, or enroll in a child care or preschool program. Consequently, the impact of Head Start was determined by a comparison to a mixture of alternative care settings rather than against a situation in which children were artificially prevented from obtaining child care or early education programs outside of their home

Mean age (SD)	3.98 (0.61)

	Condition specific characteristics: Non-white ethnicity 53%
	Domain 1: Bias arising from the randomisation process Some concerns (Study did not provide information about differences between comparison groups for baseline characteristics other than for age and ethnicity) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** High (No information regarding whether any participants deviated from their planned intervention. No information about the approach to missing data or loss to follow up.) **Domain 3. Bias due to missing outcome data** High (unclear whether there was significant missing data and how this varied between comparison groups) **Domain 4. Bias in measurement of the outcome** High (Outcomes could have been influenced by knowledge of the intervention group. Unclear that blinding was performed.) **Domain 5. Bias in selection of the reported result** Some concerns (Insufficient information provided about methods and analysis plan. No explanation of why certain covariables were included in the final model) **Overall bias and Directness** Risk of bias judgement High

Linares 2006

Study type	Randomised controlled trial (RCT)
Study location	USA

Study setting	Children in non-kinship foster care
Study dates	not reported
Duration of follow-up	post-intervention and 3 month follow up
Sources of funding	the Center for Substance Abuse Prevention, Substance Abuse Mental Health Services Administration
Inclusion criteria	Care situation Residence in a nonkinship foster home (FH). Parent Goal of family reunification. Maltreatment Substantiated history of child maltreatment.
Exclusion criteria	Caregivers biological or foster parents with a known mental handicap health problems documented developmental disabilities (e.g., autism) Maltreatment official report of sexual abuse Language those who did not speak English or Spanish.
Sample size	128 biological and foster parents
Split between study groups	Incredible Years: 80 Usual care: 48
Loss to follow-up	By 3 months:

	Incredible Years: 15 Usual care: 14
% Female	Parents: 87%
Mean age (SD)	Children: 6.2 ± 2.3 years
Condition specific characteristics	Non-white ethnicity foster parents 90%
Outcome measures	Behavioural outcome 1 Parent and foster parent combined mean externalising score (CBCL) at postintervention/3-month follow up: The Child Behavior Checklist (CBCL; Achenbach, 1991, 1992) for ages 2–3 and 4–8 was used to gather an externalizing T score. Relationship outcome Parent and foster parent combined mean parenting practices score (Parenting Practices Interview) at postintervention/3months follow up: The Parenting Practices Interview (PPI; Webster-Stratton, 1998) is a self-report instrument used to assess discipline attitudes, beliefs, and practices based on the Oregon Social Learning Center's Parenting Discipline Questionnaire (LIFT). Minor word adaptations (i.e., as far as you know; in an average visit) were made in order to increase relevance for biological parents. We used scale item means for four discipline scales: (a) Positive Discipline (15 items) included items such as praising, giving a hug, buying something, or giving a reward. Cronbach's alpha coefficients were .75 and .68 for biological and foster parents, respectively; (b) Appropriate Discipline (16 items) included items such as having the child correct the problem, using time-out, removing privileges, giving extra chores, or discussing the problem. Cronbach's alpha coefficients were .85 and .78 for biological and foster parents, respectively; (c) Clear Expectations (3 items) regarding chores, conduct, and family routines. Cronbach's alpha coefficients were .40 and .65 for biological and foster parents, respectively; and (d) Harsh Discipline (15 items) included items such as yelling, threatening to punish, showing anger yelling, or spanking. Cronbach's alpha coefficients were .83 and .77 for biological and foster parents, respectively. Behavioural outcome 2 Parent and foster parent combined mean externalising and conduct problems score (ECBI) at postintervention/3-month follow up: The Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999) assesses externalizing and conduct problems and yields an ECBI total T score. Alpha coefficients for the ECBI total T score were .93 and .94 for biological and foster parents, respectively. Behavioural outcome 3 teacher-reported mean disruptive classroom behaviour score (SESBI-R) at postintervention/3-month follow up: The Sutter–Eyberg Student Behavior Inventory—Revised (SESBI–R; Eyberg & Pincus, 1999) is a measure of disruptive classroom behaviors and yields a SESBI–R total T score. Alpha coefficient for the SESBI–R total T score was .98.
Study Arms	**Incredible Years parent training (N = 80)** This two-component (parenting and coparenting) 12-week intervention was offered at the agency by a trained bilingual (English/Spanish) team from the agency mental health unit. The team (parent leaders) delivered the group intervention in

pairs. Each parent leader was assigned a similar number of individual families for the co-parenting sessions. To enhance continuity of care, the same leaders delivered both intervention components (parenting and co-parenting). The parenting component was offered to groups of 4 to 7 parent pairs for 2-hr sessions by using the manualized Parents and Children Basic Series Program (IY; Webster-Stratton, 2001), which comprises four programs: play, praise and rewards, effective limit setting, and handling misbehavior. Strategies included videotaped vignettes, role plays, and homework. Written adaptations were made to address placement issues (i.e., safety, attachment). Biological and foster parents, their children, and leaders had a hot meal after each parenting session. The co-parenting component was offered to individual families (biological and foster parent pair and target child) in a separate session by using a newly developed curriculum. During this session, parent pairs had the opportunity to expand their knowledge of each other and their child, practice open communication, and negotiate interparental conflict regarding topics such as family visitation, dressing and grooming, family routines, and discipline. Family systems strategies included joining, didactic lesson, reenactment, and restructuring. Training and consultation. Parent leaders received a 3-day initial training from the IY staff and from a family therapy trainer from the Center for Family Studies, University of Miami. In addition, the principal investigator and the agency staff spent additional time reviewing and practicing the sessions for a total of 70 training hours prior to the beginning of the intervention. On-site weekly peer supervision was provided by the PI and a local family therapy consultant. A full-time coordinator provided implementation support throughout the trial. Adherence to protocol. All groups were taped to monitor program adherence and coded under IY guidelines for format (homework, barriers), content (principles, techniques), and group process (collaborative approach). Eight of the 72 taped sessions were randomly selected and coded by using a 5-point Likert-type scale ranging from 1 (not well) to 5 (extremely well) by two trained raters who reached 80% interrater agreement. Self-evaluation by parent leaders on format and content of weekly sessions resulted in 100% manual adherence.

Condition specific characteristics	Exploitation or maltreatment There were fewer neglected (71%) and more abused (29%) children in the intervention than in the usual care condition (100% and 0%, respectively).
Outcome measures	Behavioural outcome 1 Parent and foster parent combined mean externalising score (CBCL) at postintervention/3-month follow up: 56.37 (95%CI 54.53 to 58.21)/57.47 (95%CI 55.26 to 59.69) Relationship outcome Parent and foster parent combined mean parenting practices score (Parenting Practices Interview) at postintervention/3months follow up: positive discipline: 4.95 (95%CI 4.80 to 5.11)/4.93 (95%CI 4.76 to 5.11); Appropriate discipline: 4.63 (95%CI 4.40 to 4.85)/4.78 (95%CI 4.52 to 5.03); Clear expectations: 6.05 (95%CI 5.88 to 6.22)/6.27 (6.09 to 6.45); Harsh discipline: 1.82 (95%CI 1.69 to 1.96)/1.92 (95%CI 1.77 to 2.07)

	Behavioural outcome 2 Parent and foster parent combined mean externalising and conduct problems score (ECBI) at postintervention/3-month follow up: 49.94 (95%CI 48.20 to 51.68)/50.33 (95%CI 48.20 to 52.45) Behavioural outcome 3 teacher-reported mean disruptive classroom behaviour score (SESBI-R) at postintervention/3-month follow up: 55.74 (95%CI 51.99 to 59.48)/56.71 (51.19 to 62.23)

Usual Care (N = 48)

The intervention was evaluated against an existing standard usual care condition, defined as services offered to the families in the absence of this intervention by the agency or other local facilities (e.g., drug treatment, mental health, etc.). To guard against contamination, parent leaders were asked not to use learned techniques in their clinical work with participants outside of the intervention. Over the course of the study, services utilization for biological parent, foster parent, and child was tracked across study conditions (intervention vs. usual care), via a self-report checklist developed for this project (for parent) and a standard instrument (for child).

Outcome measures	Behavioural outcome 1 Parent and foster parent combined mean externalising score (CBCL) at postintervention/3-month follow up: 57.33 (95%CI 54.78 to 59.87)/60.82 (95%CI 57.65 to 63.98) Relationship outcome Parent and foster parent combined mean parenting practices score (Parenting Practices Interview) at postintervention/3months follow up: positive discipline: 4.71 (95%CI 4.50 to 4.92)/4.54 (95%CI 4.30 to 4.77); Appropriate discipline: 4.78 (95%CI 4.48 to 5.08)/4.81 (95%CI 4.47 to 5.15); Clear expectations: 6.12 (95%CI 5.89 to 6.35)/5.91 (5.66 to 6.15); Harsh discipline: 1.87 (95%CI 1.68 to 2.06)/2.04 (95%CI 1.83 to 2.25) Behavioural outcome 2 Parent and foster parent combined mean externalising and conduct problems score (ECBI) at postintervention/3-month follow up: 51.69 (95%CI 49.33 to 54.04)/53.43 (95%CI 50.40 to 56.46) Behavioural outcome 3 teacher-reported mean disruptive classroom behaviour score (SESBI-R) at postintervention/3-month follow up: 55.24 (95%CI 51.02 to 59.47)/53.08 (95%CI 45.27 to 60.89)

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. Biological parents were collecting data in one arm and foster parents were collecting data in the other arm. This might introduce bias.) **Overall Directness** Partially applicable (USA study)

Linares 2012

Study details

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	six volunteering community sites which provided out-of-home care to maltreated children in New York City

Study dates	Not reported
Duration of follow-up	3 months post intervention
Sources of funding	Not reported
Inclusion criteria	Age 5 to 8 years old Maltreatment "All children had official substantiated histories of child maltreatment."
Sample size	94 children
Split between study groups	49 children were randomised to Incredible Years 45 children were randomised to Usual Care
Loss to follow-up	2 were lost to follow up in the Incredible Years group 1 was lost to follow up in the usual care group
% Female	51% female, 49% male
Outcome measures	Behavioural outcome 1 Physical agression score (foster parent reported - Child behaviour checklist): Foster parents completed a six-item measure compiled from the CBCL 5–18 aggression subscale (Achenbach, 1991) . Scores ranged from 0 to 12. Behavioural outcome 2 Physical Aggression score (Teacher reported): Classroom teachers completed a seven-item measure compiled from the 38-item Sutter–Eyberg Student Behavior Inventory—Revised (SESBI-R; Eyberg & Pincus, 1999) to reflect also the program focus: Items involved physically or verbal fights with other students, acting defiant when told to do something, demanding teacher's attention, or gets angry when does not get own way. Behavioural outcome 3 Foster carer and teacher reported self control: A 51-item measure (Wills, Isasi, Mendoza, & Ainette, 2007) expressed as the item mean (1 = not true; 5 = very true) was administered to the foster parent and gathered from teacher using parallel versions. Good self control: consisting of soothability (6 items), anger regulation (4), persistence (3), and delay of gratification (8); and b) Poor self control: consisting of upsettability (4 items), anger coping (6), impatience (4), impulsivity (5), distractibility (4), and poor delay of gratification (5).

Study arms

Incredible Years Child Training (N = 49) Consistent with targeting self-regulatory processes while at the same time maintaining program feasibility, we selected 12 of the 18 manualized lessons contained in the Incredible Years Dina Program for Young Children. The selected Incredible Years modules were: Understanding & Detecting Feelings,

Detective Wally Teaches Problem Solving Steps, and Tiny Turtle Teaches Anger Management. One special lesson (My Homes, My Families) was developed for this project to promote a sense of 'belongingness' to the foster home. Minor written changes in the content of the role-play child vignettes were made to reflect the cultural background of the children and the social ecology of foster care. We followed program strategies (use of puppets, videotaped vignettes, role plays, small activities, and homework). Calls or notes to teachers or parents were not used. The Child Training program was delivered in 12 consecutive sessions lasting 2 h each for a total of 24 intervention hours. Small groups of 6–9 children were gathered in a classroom-like setting at each study site; each group was led by a three-person hybrid team (one university staff, two agency staff) composed of trained clinicians who had at least a master in psychology or social work. Foster (and biological if available) parents attended a 2-hour group in lessons 1, 6, and 12. Parent lessons were aimed at promoting skill generalization to the foster home (or during the family visitation) and assist in homework activities. University–agency site teams received together the initial training course from Incredible Years staff; and met weekly at each study site to set up logistics, review training tapes, develop child behavioral plans, practice lessons, and deliver the program. Each team spent a total of 62 h on these implementation tasks. To promote shared leadership, the team rotated on equal basis the roles of content and process leader. Throughout the implementation of the groups, videotapes of the sessions were viewed each week by the team and senior author (LOL). During these meetings, the integrity of the intervention relative to the manualized curriculum was monitored in regard to critical program components such as vignettes covered, classroom rules, teaching and small group activities, and managing child behavior. Academic clinicians received periodic feedback based on videotaped sessions and consultation from Dr. Webster-Stratton (the program developer) over the course of the trial. An implementation coordinator worked with foster parents to reduce barriers to child participation. Adherence to protocol was evaluated.

% Female	41%
Mean age (SD)	6.7 ± 1.1 years
Condition specific characteristics	Exploitation or maltreatment Physical abuse: 22%; Sexual abuse: 0%; Neglect: 94% time in care Age at placement in foster care: 4.9 ± 1.8 years Months in foster care: 0-12 months: 47%; 13 - 24 months: 20%; >24 months: 33% Type of care Kinship: 37%; Parental rights terminated: 10% Mental health needs Attention deficit hyperactivity (ADHD): 43% Oppositional defiant: 29% Conduct: 8% Any internalising disorder: 12% Any disruptive behaviour disorder: 49% Any CDISC4 diagnosis: 55% Psychiatric hospitalisation: 2% therapeutic foster home: 10% Psychoactive medication: 20% Special education: 35% Individual psychotherapy: 45% Family/group psychology: 12% Ethnicity African American: 37%; Latino: 29%; Other (mixed, Caucasian, other): 35%

Usual Care (N = 45)

Participants received usual care from six volunteering community sites which provided out-of-home care to maltreated children (not described in detail)

% Female	62% female, 38% male

Mean age (SD)	6.7 ± 1.3 years
Condition specific characteristics	Exploitation or maltreatment Physical abuse: 20%; Sexual abuse: 7%; Neglect: 80% time in care Age at placement in foster care: 4.7 ± 2.4 years Months in foster care: 0-12 months: 38%; 13 - 24 months: 31%; >24 months: 15% Type of care Kinship: 42%; Parental rights terminated: 11% Mental health needs Attention deficit hyperactivity (ADHD): 22% Oppositional defiant: 20% Conduct: 16% Any internalising disorder: 7% Any disruptive behaviour disorder: 40% Any CDISC4 diagnosis: 47% Psychiatric hospitalisation: 0% therapeutic foster home: 7% Psychoactive medication: 16% Special education: 18% Individual psychotherapy: 36% Family/group psychology: 7% Ethnicity African American: 62%; Latino: 20%; Other (mixed, Caucasian, other): 18%

Risk of Bias

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Some concerns
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
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 *(Study was from the USA)*

Linares 2015

Study type	Randomised controlled trial (RCT)
Study location	USA

Study setting	Siblings in foster care
Study dates	Not reported
Duration of follow-up	Postintervention
Sources of funding	National Center for Injury Prevention and Control of the Centers for Disease Control
Inclusion criteria	Age Eligible sibling pairs were between the ages of 5 years 0 months and 11 years 11 months Care situation Siblings placed together (under the same roof) in the same foster home. A sibling was defined as a child who shared a maternal blood tie and a history of living together prior to placement and who met these additional criteria: (a) Sibling pairs received daily care from a certified relative or nonrelative foster parent and (b) only siblings placed in foster care were included. Maltreatment official history of child maltreatment (neglect with or without physical abuse)
Exclusion criteria	Caregivers Unable to locate biological parents Care situation out of burough residence; imminent discharge or adoption; siblings became separated; health problems developmental disability Maltreatment History of sexual abuse Language Spoken language other than english or spanish
Sample size	22
Split between study groups	Intervention = 13

	Comparison = 9
Loss to follow-up	Intervention = 13 Comparison = 8
% Female	26 % were both males, 37 % were both females, and 37 % were of mixed gender.
Mean age (SD)	average age spacing between pairs was 1.87 (1.05) years
Condition specific characteristics	Non-white ethnicity (at least) 91% Exploitation or maltreatment 90 % were classified with one or more child neglect type/s (MCS). time in care Siblings had been in foster care on average for 32.37 months ± 38.62 Emotional or Behavioural disorders 57.3% with CBCL T score of ≥60 CBCL in externalizing problems.
Outcome measures	Relationship outcome Sibling interaction quality (SIQ) mean score at postintervention: Sibling Interaction Quality The Sibling Interaction Quality (SIQ; Kramer 2010) scale was adapted to assess the dyadic quality of the sibling interaction and conflict in the foster home under two standard play conditions: floor puzzle and game play (Connect Four). Play conditions were selected to reflect different task demands (e.g., low vs. high competition) likely to elicit varying levels of sibling conflict. Siblings were presented with standard play materials and asked not to mind the videographer. No other adults were present. Siblings were videotaped for an average M=18.0 min (4.0). The interaction quality assessment was composed of 34 items: (a) Positive interaction (alpha=0.77) consisted of 18 items clustered in three dyadic domains: communication (four items such as exchange of information, wishes, likes, and dislikes), activities (six items such as joint play, teach, and caregiving), and affect (eight items such as affection, joy, and helping); (b) Negative interaction (alpha=0.94) was composed of 15 items clustered in three dyadic domains: communication (three items such as unsuccessful exchanges), activities (four items such as ignoring or unsuccessful initiation of play), and affect (eight items such as prohibition, bossiness, physical aggression, insult, and negative emotion)—affect was coded by integrating verbal content, context, facial expressions, gestures, and body movement; and (c) Conflict was defined as dyad exhibiting three opposing interactive turn units—if conflict was observed, five items were used to describe type of conflict resolution (compromise, win/lose, no resolution, reconciliation, and requests parent intervention). Items coded as presence=1 or absence=0 were summed and divided by the number of items in each domain (communication, activities, and affect) to obtain an item mean for positive interaction and negative interaction in floor puzzle and game play conditions. Item mean ranged from 0 to 1. Conflict under the two play conditions was a binary (Y/N) measure. Videotapes were first transcribed verbatim by a research assistant. Using the written transcription and watching the videotape, a trained coder (SB) coded all tapes; coder was blind to the children's study group (intervention or comparison) and whether tape involved the pre- or postintervention assessment. Dyadic interactions were coded continuously for presence in three or more passes. Based on a set of training tapes from the pre-trial phase, the senior author and the coder established ≥80 % reliability before coding of trial tapes began. relationship outcome 2

	Foster parent reported sibling aggression (The Sibling Aggression Scale) mean score at postintervention: Sibling Aggression The Sibling Aggression Scale (SAS; Linares 2008b) modeled after the Conflict Tactics Scale-2 is a 13-item scale assessing events in two domains in the past 2 months: five verbal/indirect aggressive acts (insult, swear, isolate, yell, and destroy; alpha=0.63) and eight physical/ direct (push, kick, threaten, grab, beat-up, throw, twist, and slap; alpha=0.74) aggressive acts. Foster parent reported separately for older and younger child as perpetrators; presence or absence (coded as 1 or 0) and severity (weekly frequency) were summed across items for verbal and physical domains.
Study Arms	**Promoting Sibling Bonds (PSB) (N = 13)** PSB is an 8-week program package for sibling pairs (between ages 5 and 11 years) and their foster parent aimed at increasing sibling positive interaction, reducing conflict during play, and promoting conflict mediation strategies. PSB is a family-focused 90-min program package composed of three components: sibling pair (SIBS), parent (foster parent), and joint (sibling pair-foster parent). The PSB program was implemented during eight consecutive weekly sessions at the community foster care agency. Two master-level academic clinicians completed all sessions with individual families randomized to the intervention group. In the same 90-min weekly session, the child clinician delivered the SIBS sessions to the sibling pair while the other clinician delivered the parent sessions to the foster parent in an adjacent room. Joint sessions took place with the family unit at the beginning and end of each session. About 1/3 spoke primarily Spanish; these families received the intervention in Spanish. During SIBS sessions, a second clinician assisted when the behavioral needs of one or both siblings required individual attention. The child clinician/s implemented sessions using instruction, live demonstrations, role playing, coaching, and positive feedback. Siblings practiced the new skills in these sessions and earned SibBucks, which they traded for small prizes at the end of each visit. During parent sessions, the clinician first focused on discussing consistent parental management of sibling behavior, and later on the notion that siblings themselves, rather than the parent, negotiate and develop their own prosocial solutions to conflict. Foster parents and their clinician discussed specific sibling conflict, disagreement, or disputes and identified unsuitable and suitable scenarios for mediation training. For aggressive interactions, parents were encouraged to apply consistent parent management strategies such as setting firm family rules including the use of timeout. For non-aggressive interactions, parents were encouraged to use non-harsh and consistent parenting and mediation strategies such as ask, identify problem, brainstorm, and try a solution and were discouraged to use non-mediation strategies such as non-intervention, power assertion, command, and lecturing. During joint sessions, the parent, sibling pair, and clinicians reviewed together week-to-week progress, problem-solved implementation barriers in the foster home, and reinforced positive interactions. Strategies were aimed at promoting family collaboration and skill generalization in the foster home. In between visits, the family was encouraged to practice skills and complete homework (i.e., CanDo Chart).There were three intervention components. The SIBS component focused on: (1) Cooperating, taking turns, and sharing; (2) consistent consequences for sibling aggression; (3) emotion self-regulation (Take a Break); (4) try something else (Turn your Behavior Around); (5) support your sibling and identify common ground; and (6) problem solving and finding a solution. The parent component focused on: (1) Sibling cooperation and

communication; (2) consistent consequences for sibling aggression; (3) the power of positive attention; (4) self-regulation for yourself and for the children; and (5) problem-solving (mediation) steps: Get ready to listen; get the story straight and the feelings right; help children name the problem; brainstorm; and try a solution. The joint component focused on: (1) Barriers in the home; (2) tracking and applying consequences to specific behaviors; (3) controlled practice; and (4) can do charts. Following a social learning model, program strategies are based on doing rather than talking and are highly positive, including frequent use of social and tangible rewards. The clinical team watched videotaped sessions together, coordinated sessions, and developed joint behavioral plans for program activities. The selection of child games and activities were implemented attending to the potential for dyadic success and to birth order. Attending to birth order (older vs. younger) can be particularly important within this population because in single-parent families, powerful proscribed family roles may be determined by birth order. For example, if a challenging game was proposed, a game plan with the older child was discussed so that the developmental needs of a young child were taken into consideration (i.e., the older child takes a coaching role). Program fidelity (consistency and quality) was maintained via videotaped sessions, which were reviewed over the course of the study and with periodic program consultation. Clinicians followed a detailed session by session manual and completed self-checklists of the content and procedures covered in each session. The senior investigator led weekly clinical meetings and periodically gave feedback to clinicians on adherence to core principles, strategies, and format.

% Female	38.5%
Mean age (SD)	younger sibling: 7.18 ± 1.55 older sibling: 9.70 ± 1.13
Condition specific characteristics	Non-white ethnicity (at least) 80.8% Exploitation or maltreatment neglect: 100%; abuse: 5% time in care 12 months or less: 53.8%; 12-24 months: 30.8%; longer than 24 months: 15.4% Emotional or Behavioural disorders

	internalising problems: 26.9%; externalising problems: 65.4% Type of care Kinship care: 46.2% Mental health needs psychotropic medication: 7.7%; psychotherapy: 59%
Outcome measures	Relationship outcome Sibling interaction quality (SIQ) mean score at postintervention: positive: 0.69 ± 0.26; Negative: 0.31 ± 0.25; Conflict (floor puzzle): 7%; Conflict (game play): 72%. GENLIN analyses comparing means for postintervention (time 2) by group after adjusting for baseline (time 1) scores and child age: positive: beta=0.324 ± 0.112, p<0.0001; Negative: β=0.058 ± 0.049, p<0.05); Conflict (floor puzzle): β=−1.126 ± 0.823, p<0.01; Conflict (game play): p=0.500 relationship outcome 2 Foster parent reported sibling aggression (The Sibling Aggression Scale) mean score at postintervention verbal (adjusted p value)/physical (adjusted p value): Older sibling: 1.94 ± 1.42 (p=0.101)/1.35 ± 1.58 (p=0.012). Younger child: 1.81 ± 1.77 (p=0.258)/1.59 ± 1.76 (p=0.530). Foster parents in the intervention group reported lower sibling physical aggression from the older toward the younger child than foster parents in the comparison group when baseline age and score were taken into account (β=−1.391 ± 1.08, p<0.05).

Foster care as usual (N = 9)
Children and foster parents in both study groups continued to receive services as prescribed by their foster care agencies.

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Siblings in foster care
Study dates	Not reported
Duration of follow-up	Postintervention
Sources of funding	National Center for Injury Prevention and Control of the Centers for Disease Control

Exclusion criteria	Caregivers Unable to locate biological parents Care situation out of burough residence; imminent discharge or adoption; siblings became separated; health problems developmental disability Maltreatment History of sexual abuse Language Spoken language other than english or spanish
Sample size	22
Split between study groups	Intervention = 13 Comparison = 9
Loss to follow-up	Intervention = 13 Comparison = 8
% Female	61.1%
Mean age (SD)	Younger: 7.28 ± 1.89 years Older: 8.53 ± 1.50 years
Condition specific characteristics	Non-white ethnicity 0% Exploitation or maltreatment any neglect: 78%; any abuse: 22%

		time in care 12 months or less: 44.4%; 12-24 months: 11.1%; longer than 24 months: 44.4% Emotional or Behavioural disorders internalising behaviour: 44.4%; externalizing behaviour: 50.0% Type of care kinship: 55.6% Mental health needs psychotropic medication: 33.3%; individual psychotherapy: 41%
	Outcome measures	Relationship outcome Sibling interaction quality (SIQ) mean score at postintervention: Positive: 0.70 ± 0.22. Negative: 0.26 ± 0.23. Conflict (floor puzzle): 33%. Conflict (game play): 67% relationship outcome 2 Foster parent reported sibling aggression (The Sibling Aggression Scale) mean score at postintervention verbal/physical: Older child: 2.63 ± 1.51/2.00 ± 1.41. Younger child: 2.20 ± 1.41/2.22 ± 2.11
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** Low **Domain 5. Bias in selection of the reported result** Low	

	Overall bias and Directness Some concerns (Method of randomization not provided. Gender and other characteristics are not balanced between the arms. This could be due to the small sample size.) **Overall Directness** Partially applicable (USA study)

Maaskant 2017/2016

Study type	Randomised controlled trial (RCT) see also Maaskant 2016: Parent training in foster families with children with behavior problems: Follow-up results from a randomized controlled trial.
Study location	Netherlands
Study setting	Foster children with behavioural problems
Study dates	January 2011 and April 2014
Duration of follow-up	postintervention and four month follow up
Sources of funding	ZonMw (the Netherlands Organization for Health Research and Development).
Inclusion criteria	Age 4 to 11 years old Care situation

	Foster families Emotional or mental health needs Total Difficulties Score above the clinical cut off score of 14 Behavioural needs Parent Daily Report - a mean number of more than five different types of problem behavior each day
Sample size	88 randomised
Split between study groups	PMTO = 47 CAU = 41
Loss to follow-up	PMTO = 17 CAU = 8
% Female	Not reported for total sample
Mean age (SD)	Not reported for total sample
Interventions	Intervention 1 In the PMTO group, 13 foster families (43%) received alternative parenting support or child treatment in addition to PMTO at postintervention and nine foster families (31%) at follow-up. In the CAU group, 21 foster families (63%) reported the received alternative parenting support or child treatment between baseline and postintervention assessment, and nine foster families (26%) between postintervention and follow-up assessment. In total, five families in the CAU received some form of protocolled parenting interventions which might abut to the insensitivity of PMTO (e.g. Triple P course, Video Interaction Guidance, Intensive Home Treatment).
Outcome measures	Behavioural outcome 1 Foster carer-reported Child Behaviour (Child Behaviour Checklist): Child behavior problems were measured with the Dutch version of the Child Behavior Checklist (CBCL). The CBCL and TRF consists of 113 items (6–18 years version, also used for 4–5-years-old after personal agreement of Achenbach) rated on a 3-point Likert scale. Externalizing Problems (CBCL: 35 items, TRF: 32 items, e.g., disobedient at home, destroy his/her own things, can't sit still) and Internalizing Problems (CBCL: 26 items, TRF: 27 items, e.g., too fearful or anxious, feels worthless or inferior, worries). Placement stability 1 Number of placement breakdowns Behavioural outcome 2

	Teacher-reported Child Behaviour (Teacher Report Form): the Teacher Report Form (TRF) completed by teachers. The CBCL and TRF consists of 113 items (6–18 years version, also used for 4–5-years-old after personal agreement of Achenbach) rated on a 3-point Likert scale. Externalizing Problems (CBCL: 35 items, TRF: 32 items, e.g., disobedient at home, destroy his/her own things, can't sit still) and Internalizing Problems (CBCL: 26 items, TRF: 27 items, e.g., too fearful or anxious, feels worthless or inferior, worries). Relational outcome 1 Parenting Stress: The Dutch revised version of the Parenting Stress Index (PSI-R; Abidin, 1983; translated revised version by De Brock, Vermulst, Gerris, & Abidin, 1992; De Brock, Vermulst, Gerris, Veerman, & Abidin, 2009, NOSI-R) was used to assess parental experiences of stress and competence in the parenting situation. This parent-report inventory consists of 78 items using a four-point scale (1 = strongly agree; 4 = strongly disagree) and is divided into 13 subscales, referring to two main domains of parenting stress experience. The 'parent domain' (Parent Stress; e.g. being a foster parent of this child is more though than I thought it would be, it is difficult to understand what my foster child needs from me; because of being a foster parent, I cannot do other things I would like to do) refers to perceived stress regarding family factors and includes seven subscales: sense of competence (seven items), restricted role (six items), attachment (five items), depression (six items), parent health (five items), social isolation (six items) and marital relationship (five items). The 'child domain' (Child Stress; my foster child demands more than my other children, I don't feel my foster child appreciate my good intentions, a lot of things are upsetting my foster child) refers to stress evoked by their child's behavior and emotions and contains six subscales: adaptability (seven items), mood (six items), distractibility/ hyperactivity (seven items), demandingness (six items), positive reinforcement (five items) and acceptability to the child (seven items). Finally, a Total Stress score of parenting stress (Parent Stress + Child Stress) can be calculated. The psychometric qualities of the Dutch version of the PSI-R are acceptable to good (De Brock et al., 1992, 2009). In the present study, the Parent, Child and Total Stress score were used as outcomemeasures for parenting stress. In our sample, the Cronbach's alpha varied (from baseline to follow-up and for foster mothers and fathers) from 0.67 and 0.94 for the different subscales. The Cronbach's alpha of the Parent, Child and the Total Stress score varied from 0.93 and 0.98. Relational outcome 2 Parenting behaviour: Parental behavior was assessed with the Parenting Behavior Questionnaire (PBQ, Wissink, Deković, & Meijer, 2006). The PBQ comprises 30 items on a five-point rating scale (1=never; 5=very often), divided into six subscales (5 items each), referring to threemain dimensions of parental behavior: warmth and responsiveness (dimension parental support e.g. howoften you compliment your child?), explaining and autonomy granting (dimension authoritative control; e.g. how often you encourage your child to decide something on its own?) and strictness and discipline (dimension restrictive control e.g. how often you need to set strict rules?).
Study arms	**Parent Management Training Oregon (PMTO) (N = 30)** PMTO is an intensive (mostly 6–9 months with weekly sessions), individual parenting intervention in which intervention goals are set in agreement between trainer and parents. PMTO treatment is based on the social interaction learning model (SIL), which combines the principles of social learning, social interaction and behavioral perspectives. SIL emphasizes the importance of the social context in the development of children. Contextual factors (e.g., family structure transitions, parents' stress-level and children's temperament) are expected to have indirect effects on child outcomes, and are mediated by coercive processes and ineffective parenting skills. Coercive cycles in family interactions are initiated when children and parents reinforce each other's negative behavior, and these cycles often flourish in stressful contexts. In relationships characterized by coercive interactions parental expression of warmth and encouragement tend to be scarce, and the children are rarely reinforced for developing positive skills. Once coercive processes are established, they tend to be maintained by both the parent and child. The main focus of PMTO is enhancing effective and positive parenting practices, and diminishing coercive practices while making relevant adaptations for high risk contextual factors (e.g., divorce; Forgatch et al. 2005a). The five central parenting skills are: limit setting and discipline, monitoring and supervision, problem solving, positive involvement, and skill encouragement (Patterson 2005). In addition to the core parenting practices, PMTO incorporates the supporting parenting components of identifying and regulating emotions, enhancing communication,

giving clear directions, and tracking behavior. The PMTO program is fully manualized. The central role of the PMTO therapist is to teach and coach parents by role play, and modeling exercises in the use of effective parenting strategies. Nevertheless, the central parenting skills and supporting parenting components offered by the therapists depend on the specific goals set for each family. Internationally the mean number of individual treatment sessions is about 25 (depending on the set goals) and sessions are generally once a week. The average number of sessions in the present study was 21.42 (SD = 7.90). In 29% of the PMTO treatments in this study only the foster mother was involved, in 71% both foster parents attended.

Study type	Randomised controlled trial (RCT)
Study location	Netherlands
Study setting	Foster children with behavioural problems
Study dates	January 2011 and April 2014
Duration of follow-up	postintervention and four month follow up
Sources of funding	ZonMw (the Netherlands Organization for Health Research and Development).
Inclusion criteria	Age 4 to 11 years old Care situation Foster families Emotional or mental health needs Total Difficulties Score above the clinical cut off score of 14 Behavioural needs Parent Daily Report - a mean number of more than five different types of problem behavior each day

Sample size	88 randomised
Split between study groups	PMTO = 47 CAU = 41
Loss to follow-up	PMTO = 17 CAU = 8
% Female	54%
Mean age (SD)	7.85 ± 2.36 years
Condition specific characteristics	Placement changes Number of previous placements: 0.96 ± 0.79 Care situation Non-kinship: 83%
Outcome measures	Behavioural outcome 1 Foster carer-reported Child Behaviour (Child Behaviour Checklist): total problems at postintervention/4 month follow up: 60.63 ± 10.62/60.75 ± 10.85; externalising problems at postintervention/4 month follow up: 62.10 ± 10.09/61.68 ± 10.09; internalising problem at postintervention/4 month follow up: 54.91 ± 10.35/55.16 ± 11.24 Placement stability 1 Number of placement breakdowns: 2 Behavioural outcome 2 Teacher-reported Child Behaviour (Teacher Report Form): total problems at postintervention/4 month follow up: 58.07 ± 9.12/60.04 ± 8.47; externalising problems at postintervention/4 month follow up: 77.86 ± 22.11/79.37 ± 21.71; internalising problem at postintervention/4 month follow up: 55.32 ± 9.92/56.48 ± 9.78 Relational outcome 1 Parental stress mean score (PSI-R) at postintervention/4 month follow up: total scale: 141.98 ± 36.43/146.75 ± 40.32; parent domain: 62.07 ± 16.95/64.71 ± 20.89; child domain: 79.21 ± 22.65/81.41 ± 22.08

	Relational outcome 2 Parenting behaviour (PBQ) mean score at postintervention/four months follow up: Warmth: 4.10 ± 0.67/4.06 ± 0.72. Responsiveness: 3.89 ± 0.55/3.86 ± 0.61. Explaining: 3.98 ± 0.60/4.00 ± 0.57. Autonomy granting: 3.38 ± 0.59/3.44 ± 0.56. Strictness: 2.78 ± 0.62/2.84 ± 0.67. Discipline: 2.12 ± 0.61/2.14 ± 0.61

Care as Usual (N = 33)
All foster parents received regular support services from the foster care institution. These support services typically included an appointment with a foster care supervisor once every 3–6 weeks. The supervisors were blind for the allocation of families into the control group. If necessary, foster parents from the control group were free to ask for more intensive or specialized support, including every available form of treatment or intervention except PMTO. Foster parents in the intervention group also received care as usual and were free to ask for other help besides PMTO. At posttest, foster parents of both the PMTO and CAU group were asked which (alternative) forms of support or treatment they had received and how often.

Study type	Randomised controlled trial (RCT)
Study location	Netherlands
Study setting	Foster children with behavioural problems
Study dates	January 2011 and April 2014
Duration of follow-up	postintervention and four month follow up
Sources of funding	ZonMw (the Netherlands Organization for Health Research and Development).
Inclusion criteria	Age 4 to 11 years old Care situation Foster families

	Emotional or mental health needs Total Difficulties Score above the clinical cut off score of 14 Behavioural needs Parent Daily Report - a mean number of more than five different types of problem behavior each day
Sample size	88 randomised
Split between study groups	PMTO = 47 CAU = 41
Loss to follow-up	PMTO = 17 CAU = 8
% Female	50%
Mean age (SD)	7.52 ± 2.30
Condition specific characteristics	Placement changes Number of previous placements: 1.05 ± 1.13 Care situation Placement type (non-Kinship): 85%
Outcome measures	Behavioural outcome 1 Foster carer-reported Child Behaviour (Child Behaviour Checklist): total problems at postintervention/4 month follow up: 63.00 ± 9.19/61.64 ± 9.47; externalising problems at postintervention/4 month follow up: 64.75 ± 9.68/63.22 ± 10.95; internalising problem at postintervention/4 month follow up: 53.89 ± 10.92/52.47 ± 10.60 Placement stability 1 Number of placement breakdowns: 3 Behavioural outcome 2

	Teacher-reported Child Behaviour (Teacher Report Form): total problems at postintervention/4 month follow up: 62.03 ± 9.40/59.23 ± 9.15; externalising problems at postintervention/4 month follow up: 81.59 ± 19.60/78.80 ± 21.63; internalising problem at postintervention/4 month follow up: 55.69 ± 10.18/53.73 ± 9.69 Relational outcome 1 Parental stress mean score (PSI-R) at postintervention/4 month follow up: total scale: 158.3 ± 40.82/152.45 ± 44.29; parent domain: 70.79 ± 22.54/67.83 ± 25.15; child domain: 83.92 ± 22.49/83.92 ± 22.49 Relational outcome 2 Parenting behaviour (PBQ) mean score at postintervention/four months follow up: Warmth: 4.14 ± 0.61/4.18 ± 0.64. Responsiveness: 3.90 ± 0.60/3.90 ± 0.63. Explaining: 4.09 ± 0.50/4.09 ± 0.62. Autonomy granting: 3.51 ± 0.52/3.47 ± 0.53. Strictness: 3.18 ± 0.53/3.20 ± 0.58. Discipline: 2.24 ± 0.53/2.26 ± 0.52
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)** High **Domain 3. Bias due to missing outcome data** High **Domain 4. Bias in measurement of the outcome** High **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** High (In the intervention arm, 5 participants dropped out because they wished for ‘other kind of help’. There was also ‘no need for help’ in 7 instances. These reasons were not evident in the control arm. Also, the number of participants dropping out in the intervention arm was greater. The number of participants who dropped out in the intervention arm is relatively large (approximately 1/3). Foster parents from

	the control group were free to ask for more intensive or specialised support, including every available form of treatment or intervention except PMTO. It's not clear that participants in the intervention arm had this too. Investigators who collected data were not blinded.) **Overall Directness** Partially applicable (Study was conducted in the Netherlands)

Macdonald 2005

Study type	Randomised controlled trial (RCT)
Study location	UK
Study setting	Foster Care
Study dates	Not reported
Duration of follow-up	Postintervention (intervention took place over 4-5 weeks), and 6 months follow up
Sources of funding	Not reported
Inclusion criteria	Care situation foster-carers from six local authorities in the south-west of England.
Exclusion criteria	Care situation foster-carers engaged in respite care
Sample size	117
Split between study groups	Training: 67

	Wait list: 50
Loss to follow-up	None reported
% Female	76.1%
Mean age (SD)	mean 45 years
Outcome measures	Behavioural outcome 1 Number of behaviours found challenging (constructed index). At each time point participants were asked what behaviours they found particularly difficult or challenging. Carers reported a wide range of problems, amongst which those most frequently reported included physical aggression, Attention Deficit Hyperactivity Disorder (ADHD) and its consequences, anxiety and phobias, stealing and lying, and a variety of behaviour problems such as temper tantrums, biting spitting, screaming and eating problems. Authors anticipated that carers in the training group would find some things less challenging over time as a result of the training. On the basis of the number of problems each participant reported, an index was calculated representing the proportion of reported difficult behaviours. The index was developed by summing the number of behaviours reported as difficult and challenging by each participant and dividing this number by twenty-five (total number of behaviours that could be listed). Placement stability 1 Number of unplanned breakdowns of placement at 6 months: These data were ontained from interview data, which covered the 6 months after training. Authors tried to identify placements that came to unplanned endings that foster carers attributed (at least in part) to behaviour problems.
Study arms	**CBT-informed Parent training programme (N = 67)** The training sought to familiarize carers with an understanding of social learning theory, in terms of both how patterns of behaviour develop and how behaviour can be influenced using interventions derived from learning theory. There was an emphasis throughout on developing the skills to observe, describe and analyse behaviour in behavioural terms—the so-called 'ABC' analysis. In the programme, these skills were developed before moving on to consider specific strategies or interventions, though the way in which the training was conducted resulted in some fluidity between sessions. In order to standardize the intervention and ensure its replicability, the trainers produced a manual for carers that provided an overview of the curriculum and associated materials. In relation to the children, the programme sought to ensure that each child's particular situation was taken into account. Authors made explicit the importance of such issues as a child's attachment history, their early childhood experiences and other significant events, and how these impact on how children experience current events and relationships. The programme also focused on the experience of foster-carers, and the quality of the relationships they enjoyed with those they fostered. Sometimes, the reason people do not respond appropriately in stressful situations is not attributable to lack of skills, or even lack of insight into how best to handle a situation. Rather, it is because of a lack of belief in one's ability to act or to bring about change. The curriculum was

	therefore designed to promote a sense of confidence or self-efficacy on the part of foster-carers. It did this essentially by encouraging foster-carers to apply behavioural and cognitive behavioural principles to an analysis of their own learning and their own responses to situations, and by affirming and reinforcing their endeavours. The programme also focused on other important factors, such as the quality of relationships between foster-carers and those they looked after. For example, we explored with carers how they managed when looking after children with whom close bonds were difficult to forge, whether because of a child's history of rejection, or simply because a carer found a child particularly difficult to 'like'. The first two groups met weekly for three hours over five weeks. The study groups were, however, considerably larger than those in the pilot, and authors moved to four, weekly, five-hour sessions in order to enable the participation of all group members in the remaining four groups. A follow-up day was designed as an opportunity for participants to discuss their experiences of implementing these interventions over a period of time. % Female: 77.6% Outcome measures: Behavioural outcome 1 Proportion of behaviours found challenging (constructed index mean score) at postintervention/6 month follow up: 0.07/0.05. There were no differences between the comparison groups at any time point. Placement stability 1 Number of unplanned breakdowns of placement: 4/49 (8.2%) **Wait list control (N = 50)** Those in the control group continued to receive standard services and were assured that should the training prove helpful, it would be made available to them in the future. Outcome measures: Behavioural outcome 1 Proportion of behaviours found challenging (constructed index mean score) at postintervention/6 month follow up: 0.07/0.05. There were no differences between the comparison groups at any time point. Placement stability 1 Number of unplanned breakdowns of placement at 6 months: 4/40 (10%)
Risk of Bias	**Domain 1: Bias arising from the randomisation process**

	High (Baseline characteristics not compared between study groups, however there were considerable differences between the numbers assigned to either group after randomisation (50 vs 67)) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** **High** (No information was reported about adherence to the interventions or whether a per-protocol approach was used for analysis.) **Domain 3. Bias due to missing outcome data** High (>10% of missing data for placement breakdown outcome. Intervention group almost twice the missing data of the control group.. Unclear reasons for missing data.) **Domain 4. Bias in measurement of the outcome** Some concerns **Domain 5. Bias in selection of the reported result** Some concerns (Unclear research protocol in study, and no protocol cited) **Overall bias and Directness** High **Overall Directness** Directly applicable (UK based)

Mersky 2015

Study type	Randomised controlled trial (RCT) Also see Mersky 2016
Study location	USA
Study setting	Young children in foster care
Study dates	Not reported
Duration of follow-up	8 weeks and 14 weeks from baseline
Sources of funding	National Institutes of Health, National Institute of Child Health and Human Development
Inclusion criteria	Age children between 2.5 and 7 years old Care situation placed in a licensed, nonrelative foster home
Exclusion criteria	health problems Children with intellectual, physical, or pervasive developmental disabilities (e.g., autism, deafness) according to child welfare case records
Sample size	129
Split between study groups	Extended PCIT: 35 Brief PCIT: 48 Wait list: 46
Loss to follow-up	Extended PCIT: 8

	Brief PCIT: 12 Wait list: 13
% Female	56%
Mean age (SD)	mean 4.6 years
Condition specific characteristics	Non-white ethnicity 84%
Outcome measures	Relationship outcome Dyadic Parent-Child Interaction mean score (Dyadic Parent–Child Interaction Coding System) at 8-weeks/14-weeks post-baseline: The Dyadic Parent–Child Interaction Coding System (DPICS-II; Eyberg, Nelson, Duke, & Boggs, 2005) is an observational coding system used to assess behaviors and verbalizations of parents and children along with parent-child interactions. Studies have shown that the DPICS-II has sound internal consistency and discriminant validity, and that the measure is sensitive to effects associated with parent training interventions. Foster parent-child dyads engaged in a 15 to 20 minute structured protocol that began with child-directed play, followed by parent-directed play, and then clean-up activities during which the child was asked to help pick up the play materials. Videotaped recordings of the sessions were coded at a different university by trained graduate and undergraduate students who were blind to the participants' study condition. All coders were trained to 80% or greater interrater agreement prior to study involvement (McNeil & Hembree-Kigin, 2010). The present study uses codes that assess parent verbal and nonverbal behaviors, which were used to create four summative measures: (a) labeled praise across child-led play, parent-led play, and clean-up; (b) negative talk across child-led play parent-led play and clean-up; (c) positive composite of labeled praise, reflections, and behavior descriptions in child-led play; and (d) negative composite of negative talk and questions commands in child-led play. relationship outcome 2 Parenting stress mean score (Parenting Stress Index Short Form) at 8-weeks/14-weeks postbaseline: The Parenting Stress Index-Short Form (PSI-SF; Abidin, 1995) consists of 36 items that use a 5-point Likert response scale to produce a total stress score (range of 36 to 180 points), with scores of 90 and greater defined as clinically significant. The PSI-SF comprises three 12-item subscales: parental distress, parent–child dysfunctional interaction, and difficult child. The parental distress subscale measures perceptions of stressors associated with the role of being a parent, such as restrictions on daily life, household conflict, and lack of social support. The parent–child dysfunctional interaction subscale assesses the extent to which the parent perceives that the child is not meeting the parent's expectations or that interactions with the child are unsatisfying. The difficult child subscale measures the extent to which the parent perceives the child's behaviors as being difficult to manage. Studies of diverse samples have demonstrated that the PSI-SF demonstrates good internal consistency reliability and concurrent validity.
Study Arms	**Extended Parent-Child Interaction Therapy (N = 35)** Parent-child dyads in the extended PCIT group received the same initial treatment regimen as the brief PCIT group, consisting of 2 full-day trainings and 8 weeks of phone consultation and homework. Whereas services ceased at the 8-week point for the brief PCIT group, families in the extended PCIT group were asked to return to the same child welfare agency for another full day of PCIT training. This 7-hour booster session, which largely replicated the structure of the first two training days, focused primarily on promoting PDI skills because these skills are often more difficult to master than CDI

skills. After the training session, the extended PCIT group was scheduled to receive 4 more phone consultation sessions along with regular homework activities over a 6-week period. Out of a maximum possible of 10 phone consultations, the extended PCIT group had a mean of 6.3 consultations per participant. The extended PCIT condition received 3 days of group training and 14 weeks of home-based intervention. Dosage effects can be estimated because both treatment groups received the same services but for different durations.

% Female	46%
Mean age (SD)	mean 4.4 years
Condition specific characteristics	Non-white ethnicity 83%
Outcome measures	Relationship outcome Dyadic Parent-Child Interaction mean score (Dyadic Parent–Child Interaction Coding System) at 8-weeks post-baseline: Labeled Praise: 10.20 ± 0.66. Negative talk: 5.28 ± 1.22; Positive Composite: 15.41 ± 0.66; Negative composite: 19.71 ± 0.76 relationship outcome 2 Parenting stress mean score (Parenting Stress Index Short Form) at 8-weeks/14-weeks postbaseline: Total stress scale: 83.31 ± 18.10/ 75.35 ± 18.76; Parental distress: 22.37 ± 6.93/21.91 ± 7.01; Parent-Child Dysfunctional Interaction: 23.85 ± 6.62/20.94 ± 6.75; Difficult Child: 37.37 ± 8.62/32.54 ± 8.94

Brief Parent-Child Interaction Therapy (N = 48)

Brief PCIT. Foster parent-child dyads assigned to the brief PCIT group were asked to attend 2 full-day workshops, totaling 14 hours of training. The first day of training focused on child-directed interaction (CDI), the first of two PCIT phases, and the second day of training focused on parent-directed interaction (PDI), the second phase of PCIT. At the beginning of the first day, foster parents received 90 minutes of clinical instruction in CDI. Meanwhile, their children engaged in structured play in a separate child care area. A schedule of activities for the child care room was developed by a master's-trained early education specialist who helped enlist and train undergraduate students in the study's child care protocols. After the initial instructional period, foster parents and children were reunited to practice CDI skills in a group setting. Stations equipped with different kinds of play materials were distributed throughout the room, and a foster parent child dyad was positioned at each station. Two PCIT-trained graduate students circulated around the room to facilitate parent-child interactions through positive reinforcement, coaching, and role-plays. These activities prepared the parents and children for

sessions with a PCIT therapist, which were conducted in a separate clinical setting in the same facility. Following a prearranged rotational system and standard PCIT protocols, each foster parent-child dyad was directed to a private training room to engage in a 20-minute CDI session with the therapist. The clinical room was equipped with a one-way mirror, which allowed the lead clinician to discreetly observe each dyad from an adjacent room. The observation room also featured conventional PCIT audiovisual equipment such as bug-in-ear communication devices that were used to communicate privately with the parent and a video camera that was used to record the proceedings. Videotaped sessions were used to enhance clinician training and fidelity to the model. One important modification was made to the clinical protocol to maximize the benefits of the group-based model. With the aim of promoting therapeutic gains via observational learning, one foster parent who was not related to the parent child dyad in the clinical room joined the clinician to observe the CDI of the parent child dyad. After the session, this observing parent reunified with her or his child in the clinical training room and engaged in CDI while the outgoing parent joined the clinician to observe the session through the one-way mirror. This process was repeated until all families completed the CDI sessions. At the end of the training day, children returned to the child care room while parents and clinical staff held a group discussion to consolidate learning and create a homework plan involving 5 minutes of daily CDI practice. The second training day, which was held 2 weeks after the first training day, mirrored the structure of the first but focused on PDI. Building on CDI knowledge and skills, PDI helps parents learn to manage difficult child behaviors through the use of adaptive verbal and nonverbal disciplinary practices. After a series of group-based and individualized PDI training sessions, the day closed with a group discussion. In addition to encapsulating lessons learned throughout the 2 days of training, this closing session was used to establish protocols and schedules for periodic telephone consultation and ongoing homework activities. Foster parents in the brief PCIT group were asked to complete a 5-minute homework protocol each day, and to receive brief phone consultation each week for 4 weeks and every other week for another 4 weeks. The 15 to 20 minute consultations were used to refresh parents' knowledge of and fidelity to PCIT, monitor and review progress, troubleshoot when children or parents were not making expected gains, and plan for future activities. Out of a maximum possible number of six consultations, the brief PCIT group had a mean of 4.4 phone consultations per participant. Similar to conventional PCIT, homework was used to bolster clinical gains, promote overlearning and mastery until behaviors become rote, and to ensure PCIT skills were applied in the home. The brief PCIT condition concluded after 8 weeks of phone consultation and homework.

Mean age (SD)	mean 4.7 years

Condition specific characteristics	Non-white ethnicity 82%
Outcome measures	Relationship outcome Dyadic Parent-Child Interaction mean score (Dyadic Parent–Child Interaction Coding System) at 8-weeks post-baseline: Labeled Praise: 8.58 ± 0.73; Negative talk: 3.41 ± 1.64; Positive Composite: 18.24 ± 0.61; Negative composite: 17.16 ± 0.85 relationship outcome 2 Parenting stress mean score (Parenting Stress Index Short Form) at 8-weeks/14-weeks postbaseline: Total Stress Scale: 79.15 ± 18.19/77.41 ± 18.6; Parental Distress: 23.56 ± 6.93/23.55 ± 6.9; Parent Child Dysfunctional interaction: 22.48 ± 6.69/21.81 ± 6.72; Difficult Child: 33.13 ± 8.70/32.15 ± 8.88

Wait list control (N = 41)
Children and foster parents in the treatment and control groups continued to receive usual services as designated by their case plan, including ongoing foster parent training, case management, and other psychosocial or pharmacological interventions. After their 14-week final assessment, control families were eligible to attend PCIT workshops.

% Female	63%
Condition specific characteristics	Non-white ethnicity 89%
Outcome measures	Relationship outcome Dyadic Parent-Child Interaction mean score (Dyadic Parent–Child Interaction Coding System) at 8-weeks post-baseline: Labeled Praise: 1.36 ± 1.8; Negative talk: 6.26 ± 1.14; Positive Composite: 3.73 ± 1.32; Negative composite: 28.02 ± 0.6 relationship outcome 2 Parenting stress mean score (Parenting Stress Index Short Form) at 8-weeks/14-weeks postbaseline: Total Stress Scale: 86.56 ± 18.18/80.57 ± 18.33; Parental Distress: 23.19 ± 6.96/21.95 ± 6.84; Parent-Child Dysfunctional Interaction: 26.53 ± 6.66/23.89 ± 6.66; Difficult child: 36.91 ± 8.7/35.03 ± 8.73

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)

Mersky 2016

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Children in foster care with behavioural needs
Study dates	September 2011 to March 2013,
Duration of follow-up	8 and 14 weeks post-baseline

Sources of funding	National Institutes of Health, National Institute of Child Health and Human Development
Inclusion criteria	Age 3 and 6 years old Care situation placed in a licensed, nonrelative foster home Behavioural needs in the clinical range for externalizing problems on the Eyberg Child-Behavior Inventory (ECBI) according to foster parent ratings
Exclusion criteria	Care situation Cases nearing adoption or reunification were also excluded to reduce attrition due to predictable placement change. Only one eligible child per foster family was enrolled to reduce threats to group equivalence such as diffusion and burden. health problems Children with intellectual, physical, or pervasive developmental disabilities such as autism, deafness, or blindness were ineligible for the study
Sample size	102
Split between study groups	Wait-list = 33 Brief PCIT = 39 Extended PCIT = 19
Loss to follow-up	Wait-list = 25 Brief PCIT = 10 Extended PCIT = 5
% Female	54%
Mean age (SD)	4.6 years

Condition specific characteristics	Non-white ethnicity 70%
Outcome measures	Behavioural outcome 1 Child behaviour mean score (Eyberg Child Behaviour Inventory) at 8-weeks/14-weeks postbaseline: The ECBI (Eyberg & Pincus, 1999) is a 36-item instrument that measures children's (ages 2–16) problem behaviors and the extent to which caregivers find the behaviors difficult to manage. The ECBI yields an Intensity Scale that indicates the frequency of a child's problem behaviors, and a Problem Scale that indicates parent tolerance and distress associated with the behaviors. Among representative samples, the ECBI has been shown to have good properties of test–retest reliability (a = .86–.88), internal consistency (a = .88–.95), and concurrent validity with other validated measures (Boggs, Eyberg, & Reynolds, 1990; Rich & Eyberg, 2001). The ECBI also has demonstrated sound reliability and validity with African American and Latino samples (Gross et al., 2007). Behavioural outcome 2 Child behaviour mean score (Child Behaviour Checklist CBCL) at 8 weeks/14 weeks post-baseline: The ECBI (Eyberg & Pincus, 1999) is a 36-item instrument that measures children's (ages 2–16) problem behaviors and the extent to which caregivers find the behaviors difficult to manage. The ECBI yields an Intensity Scale that indicates the frequency of a child's problem behaviors, and a Problem Scale that indicates parent tolerance and distress associated with the behaviors. Among representative samples, the ECBI has been shown to have good properties of test–retest reliability (a = .86–.88), internal consistency (a = .88–.95), and concurrent validity with other validated measures (Boggs, Eyberg, & Reynolds, 1990; Rich & Eyberg, 2001). The ECBI also has demonstrated sound reliability and validity with African American and Latino samples (Gross et al., 2007).
Study Arms	**Extended Parent-Child Interaction Therapy (N = 19)** Parent-child dyads in the extended PCIT group received the same initial treatment regimen as the brief PCIT group, consisting of 2 full-day trainings and 8 weeks of phone consultation and homework. Whereas services ceased at the 8-week point for the brief PCIT group, families in the extended PCIT group were asked to return to the same child welfare agency for another full day of PCIT training. This 7-hour booster session, which largely replicated the structure of the first two training days, focused primarily on promoting PDI skills because these skills are often more difficult to master than CDI skills. After the training session, the extended PCIT group was scheduled to receive 4 more phone consultation sessions along with regular homework activities over a 6-week period. Out of a maximum possible of 10 phone consultations, the extended PCIT group had a mean of 6.3 consultations per participant. The extended PCIT condition received 3 days of group training and 14 weeks of home-based intervention. Dosage effects can be estimated because both treatment groups received the same services but for different durations.

Outcome measures	Behavioural outcome 1 Child behaviour mean score (Eyberg Child Behaviour Inventory) at 8-weeks/14-weeks postbaseline: ECBI intensity: 133.8 ± 32.26/118.2 ± 32.7; ECBI problem: 10.8 ± 7.6/5.4 ± 7.6 Behavioural outcome 2 Child behaviour mean score (Child Behaviour Checklist CBCL) at 8 weeks/14 weeks post-baseline: CBCL externalizing: 22.3 ± 10.1/17.2 ± 10.3; CBCL internalizing: 19.8 ± 10.8/12.1 ± 10.9

Brief Parent-Child Interaction Therapy (N = 39)

Brief PCIT. Foster parent-child dyads assigned to the brief PCIT group were asked to attend 2 full-day workshops, totaling 14 hours of training. The first day of training focused on child-directed interaction (CDI), the first of two PCIT phases, and the second day of training focused on parent-directed interaction (PDI), the second phase of PCIT. At the beginning of the first day, foster parents received 90 minutes of clinical instruction in CDI. Meanwhile, their children engaged in structured play in a separate child care area. A schedule of activities for the child care room was developed by a master's-trained early education specialist who helped enlist and train undergraduate students in the study's child care protocols. After the initial instructional period, foster parents and children were reunited to practice CDI skills in a group setting. Stations equipped with different kinds of play materials were distributed throughout the room, and a foster parent child dyad was positioned at each station. Two PCIT-trained graduate students circulated around the room to facilitate parent-child interactions through positive reinforcement, coaching, and role-plays. These activities prepared the parents and children for sessions with a PCIT therapist, which were conducted in a separate clinical setting in the same facility. Following a prearranged rotational system and standard PCIT protocols, each foster parent-child dyad was directed to a private training room to engage in a 20-minute CDI session with the therapist. The clinical room was equipped with a one-way mirror, which allowed the lead clinician to discreetly observe each dyad from an adjacent room. The observation room also featured conventional PCIT audiovisual equipment such as bug-in-ear communication devices that were used to communicate privately with the parent and a video camera that was used to record the proceedings. Videotaped sessions were used to enhance clinician training and fidelity to the model. One important modification was made to the clinical protocol to maximize the benefits of the group-based model. With the aim of promoting therapeutic gains via observational learning, one foster parent who was not related to the parent child dyad in the clinical room joined the clinician to observe the CDI of the parent child dyad. After the session, this observing parent reunified with her or his child in the clinical training room and engaged in CDI while the outgoing parent joined the clinician to observe the session through the one-way mirror. This process was repeated until all families completed the CDI sessions. At the end of the training day, children returned to the child care room while parents and clinical staff held a group discussion to consolidate learning and create a homework plan involving 5 minutes of daily CDI practice. The second training day, which was held 2 weeks after the first training day, mirrored the structure of the first but focused on PDI. Building on CDI knowledge and skills, PDI helps parents learn to manage difficult child behaviors through the use of adaptive verbal and nonverbal disciplinary practices. After a series of group-based and individualized PDI training sessions, the day closed with a group discussion. In addition to encapsulating lessons learned throughout the 2 days of training, this closing session was used to establish protocols and schedules for periodic telephone consultation and ongoing homework activities. Foster parents in the brief

	PCIT group were asked to complete a 5-minute homework protocol each day, and to receive brief phone consultation each week for 4 weeks and every other week for another 4 weeks. The 15 to 20 minute consultations were used to refresh parents' knowledge of and fidelity to PCIT, monitor and review progress, troubleshoot when children or parents were not making expected gains, and plan for future activities. Out of a maximum possible number of six consultations, the brief PCIT group had a mean of 4.4 phone consultations per participant. Similar to conventional PCIT, homework was used to bolster clinical gains, promote overlearning and mastery until behaviors become rote, and to ensure PCIT skills were applied in the home. The brief PCIT condition concluded after 8 weeks of phone consultation and homework. Outcome measures: Behavioural outcome 1 Child behaviour mean score (Eyberg Child Behaviour Inventory) at 8-weeks/14-weeks postbaseline: ECBI intensity: 128.0 ± 31.6/126.6 ± 32.2; ECBI problem: 11.9 ± 7.5/10.6 ± 7.4. Behavioural outcome 2 Child behaviour mean score (Child Behaviour Checklist CBCL) at 8 weeks/14 weeks post-baseline: CBCL externalising: 19.7 ± 9.6/20.4 ± 9.6. CBCL internalising: 11.5 ± 10.2/11.8 ± 10.2 **Wait List (N = 33)** Children and foster parents in the treatment and control groups continued to receive usual services as designated by their case plan, including ongoing foster parent training, case management, and other psychosocial or pharmacological interventions. After their 14-week final assessment, control families were eligible to attend PCIT workshops. Outcome measures: Behavioural outcome 1 Child behaviour mean score (Eyberg Child Behaviour Inventory) at 8-weeks/14-weeks postbaseline: ECBI intensity: 148.7 ± 33.1/134.0 ± 31.9; ECBI problem: 20.2 ± 8.1/14.3 ± 7.5 Behavioural outcome 2 Child behaviour mean score (Child Behaviour Checklist CBCL) at 8 weeks/14 weeks post-baseline: CBCL externalising: 24.5 ± 10.2/22.8 ± 9.6; CBCL internalising: 16.1 ± 10.9/15.0 ± 10.2
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** High **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** High (Method of randomization not provided. No baseline characteristics provided to assess the success of randomization. Assessors were not blinded to the intervention.) **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

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	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%

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 *(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.)*
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

Section	Question	Answer
Overall bias and Directness	Risk of bias judgement	Some concerns
	Overall Directness	Directly applicable

Murray 2018

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Youth in treatment foster care
Study dates	from 2012 through 2015
Duration of follow-up	12 months
Sources of funding	Duke Endowment Correspondence
Inclusion criteria	Caregivers Treatment parents were eligible for the study if they had a youth placed in their home during the study period
Sample size	88
Split between study groups	enhanced treatment foster care = 47 treatment foster care = 41
Loss to follow-up	For outcome analyses, data were drawn from the “last available” data point for each participating treatment foster parent. For 12% of included treatment parents, data were available for a 12-month follow up. For the other 88%, data were only

	available across a 6-month follow-up period.
% Female	44.3%
Mean age (SD)	12.6 ± 3.4 years
Condition specific characteristics	Non-white ethnicity 69.9%
Outcome measures	Relationship outcome Discipline approaches (Project KEEP questionnaire): were assessed using a subset of questions from Project KEEP (Price, Chamberlain, Landsverk, & Reid, 2009). These assess the disciplinary approaches treatment parents report using (e.g., time out, privilege removal, talk/discussion, grounding, restraint). Data were collected on overall frequency of discipline as well as use/frequency of each particular approach (from 1 = less than once per month to 6 = 3 or more times per day). relationship outcome 2 Quality of the relationship between youth and their caregivers (Trusting Relationships Questionnaire): The TRQ is a 14-item measure designed to assess quality of the relationship between youth and their caregivers (Mustillo, Dorsey, & Farmer, 2005). Current data come from treatment parents to assess their view of the relationship with their current foster child. The TRQ is s composite mean of included items and has potential scores of 1 through 4, with higher scores indicating better relationship quality. The TRQ has adequate psychometrics (Mustillo et al., 2005).
Study Arms	**Together Facing the Challenge (treatment foster care) (N = 47)** Agency staff at all participating sites received a 3-day train-the-trainer workshop on TFTC, using a previously developed protocol (Murray et al., 2010). Staff in this designation included employees who directly supervised treatment foster parents (referred to here as TFC Supervisors) as well as higher level administrators (e.g., clinical supervisors, program directors, agency director). Agency staff then trained the agency's treatment parents in TFTC. Treatment parents in all participating sites (intervention and control) received approximately 12 hours of group-based structured training delivered by the agency's staff, using the TFTC training toolkit (Murray et al., 2010). Supervisors in both arms of the study were responsible for providing supervision and support to the treatment foster parents in their agencies. Frequency of meetings between supervisors and their treatment parents were not mandated by study protocol, so each supervisor followed state- and agency-level guidelines and their own professional approach to determine how often they met with and/or communicated with their assigned treatment parents. Follow-up consultation was provided for 12 months following training for both intervention and control agencies. For agencies randomized to the intervention arm (i.e., enhanced consultation/coaching), consultation was twice per month and included more structured sessions around specific topics,

issues, and approaches; included more formal utilization of case-based examples into session content and discussions; and included audiotaped segments from in-home observations of supervisors working with their treatment parents to provide opportunities for input and feedback to supervisors on their interactions with treatment parents. In both conditions, all consultation included supervisors and administrative staff. All supervisors were also introduced to a standardized form that was developed during the initial randomized trial of TFTC to guide their supervision sessions with treatment parents. This form, the Strategic Home Visit Guide, provided a consistent format and reminders for supervisors to use to help them implement TFTC principles and approaches by giving them a structured reminder to emphasize things that were going well, address current problems, and develop specific intervention and follow-up plans to provide both structure and consistency across time for supervisors' work with their treatment foster families. While all supervisors were encouraged to utilize this form with their treatment parents, it was required and systematically used in coaching/consultation sessions with supervisors in the intervention arm of the study to provide more detailed feedback.

% Female	not reported
Mean age (SD)	not reported
Outcome measures	Relationship outcome Discipline approaches (Project KEEP questionnaire): frequency of time-out: 1.2 ± 1.5; frequency of any discipline: 2.9 ± 1.2; frequency of privilege removal: 2.4 ± 1.3; frequency of reasoning/discussion: 3.9 ± 1.1 relationship outcome 2 Quality of the relationship between youth and their caregivers (Trusting Relationships Questionnaire): 3.7 ± 0.5

Treatment foster care (N = 41)

The control group received one group consultation per month, with consultation meetings focused on questions raised by agency staff. Overall, TFC supervisors in both arms of the study were trained in TFTC and delivered training to their agency's treatment parents in the model. Supervisors were then responsible for working with treatment parents as they implemented TFTC with youth in their homes. The primary difference between the two arms of the study was that the intervention arm (enhanced coaching/supervision) included more frequent group consultation meetings, more structured and strategic use of learning approaches with supervisors, and more practice-based feedback and coaching. the differences between the intervention and control arms included both approach and activities. In the enhanced arm, group consultations were more structured with a preset agenda that included a variety of interactive and feedback-oriented approaches (e.g.,

	case presentations, review of in-home tapes, role play) that were based on specific key elements of TFTC and drawn from in-home observations. Feedback from in-home observations was provided in written comments to the individual supervisor and was used in group consultation as examples to spur group discussions about implementation. In the control condition, the structure was much more idiosyncratic and conversational, with an agency-led agenda based on what staff members perceived to be the accomplishments and challenges of the previous month.

Split between study groups	enhanced treatment foster care = 47 treatment foster care = 41
Loss to follow-up	For outcome analyses, data were drawn from the "last available" data point for each participating treatment foster parent. For 12% of included treatment parents, data were available for a 12-month follow up. For the other 88%, data were only available across a 6-month follow-up period.
% Female	not reported
Mean age (SD)	not reported
Outcome measures	Relationship outcome Discipline approaches (Project KEEP questionnaire): frequency of time-out: 0.9 ± 1.4; frequency of any discipline: 2.6 ± 1.4; frequency of privilege removal: 2.0 ± 1.4; frequency of reasoning/discussion: 3.8 ± 1.1 relationship outcome 2 Quality of the relationship between youth and their caregivers (Trusting Relationships Questionnaire): 3.6 ± 0.5

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 provided to assess the success of randomization. No blinding and many of the outcomes are fairly subjective.) **Overall Directness** Partially applicable (USA study)

N'zi 2016

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	less severely behavior disordered children in kinship care
Study dates	Not reported

Duration of follow-up	postintervention
Sources of funding	University of Florida College of Public Health and Health Professions Graduate Research Award, the Center for Pediatric Psychology and Family Studies Research Award, and the National Institute of Mental Health
Inclusion criteria	Age ages 2 to 7 Care situation Kinship care; expected to retain child for the duration of the study Behavioural needs caregiver rating one standard deviation above the normative mean on the Problem Scale of the Eyberg Child Behavior Inventory Caregivers
Exclusion criteria	health problems major visual or auditory impairment; suspected diagnosis of Autism Spectrum Disorder
Sample size	15
Split between study groups	Child-directed Interaction Training = 8 Wait-list control = 7
Loss to follow-up	Completing at least partial assessment Child-directed Interaction Training = 1 Wait-list control = 0
% Female	50%
Mean age (SD)	5.2 years (range 2.0 to 7.5 years)

Condition specific characteristics	Non-white ethnicity 36% Emotional or Behavioural disorders 27% were above the clinical cut-off on disruptive behavior according to the ECBI Intensity Scale
Outcome measures	Behavioural outcome 1 Change in discipline practices (Daily Discipline Inventory): The Parent Daily Report (Chamberlain & Reid, 1987) is a 20-item questionnaire administered to parents by telephone for 5 consecutive days to obtain information on the daily frequency of child disruptive behaviors. The PDR has been found to have test–retest reliability of .62 to .82. Scores on this instrument were not used in this study; it was administered to permit administration of the DDI (Webster-Stratton & Spitzer,1991), a companion measure of parent responses to the negative child behaviors reported on the PDR. An adapted version of the DDI was used to assess change in discipline practices. The three composite discipline categories used in this study were: (a) Percent Critical Verbal Force (CVF) – verbal criticism or intimidation of the child; (b) Percent Non-Critical Verbal Force (NCVF) – commands or repeated commands; (c) Percent Limit Setting – time-out, removal of privileges or natural consequences. Percentages in these categories were calculated by dividing the frequency of occurrence of the category by the total sum of disciplinary responses. Relationship outcome Child-parent relationship scale mean score (CPRS) postintervention: The CPRS (Pianta, 1992) is a 30-item parent-report questionnaire that assesses parents'perceptions of emotional reciprocity in their relationship with the child. The Positive Aspects of the Relationship (PAR)subscale measures the overall security in the relationship by assessing the parent's positive feelings toward and interactionswith the child (e.g., "I share an affectionate, warm relationship with my child," "My child openly shares feelings with me").Parents rate each item on a 5-point Likert-type scale. Reliability of the PAR subscale was .72 in the standardization study(Pianta, 1992). Internal consistency for the PAR subscale in the current study was .82. relationship outcome 2 Parent-child interactions (Dyadic Parent–Child Interaction Coding System: Fourth Edition - DPICS-IV) at postintervention: The DPICS-IV (Eyberg, Nelson, Ginn, Bhuyani, & Boggs,2013) is an observational coding system of parent–child interactions in standard situations. For this study, observational coding was completed in-room rather than through a bug-in-the-ear device due to the absence of an observation room. The child-led play situation was used to measure parent CDIT skill acquisition. DPICS-IV composite categories were used to assess training skills acquisition: (a) Positive Following, the sum of Behavior Descriptions,Reflections, and Labeled and Unlabeled Praises; and (b) Negative Leading, the sum of Criticisms, Questions, and Commands. Inter-coder reliability was calculated using both percent agreement and Kappa. The overall Kappa reliability was .83 and ranged from .50 to 1.00 for the individual categories. Total percent agreement was .90 and ranged from .86 to 1.00 for the individual categories coded in this study. Behavioural outcome 3 Child behaviour mean score (Child Behavior Checklist) at postintervention. One of the two forms of the CBCL (CBCL 1.5–5 years, Achenbach & Rescorla, 2001; CBCL 6–18years, Achenbach & Rescorla, 2000) was administered to the caregivers. The CBCL is a parent-report scale designed to assesschildren's behavioral and emotional symptoms during the past 2 months (1.5–5 years) or 6 months (6–18 years). Children'ssymptoms are rated on a 100-item (1.5–5 years) or 113-item (6–18 years), 3-point Likert-type scale. Each form of the CBCLcontains an externalizing factor scale with 1-week test–retest reliability of .90 (1.5–5 years) or .92 (6–18 years), and aninternalizing factor scale with 1-week test–retest reliability of .87 (1.5–5 years) or .91 (6–18 years).
Study Arms	**Child-Directed Interaction Training (N = 8)** Child Directed Interaction Training (CDIT) is the first phase of Parent Child Interaction Therapy (Eyberg & Funderburk, 2011), an evidenced-based treatment for preschoolers with histories of child abuse and neglect (Chadwick Center on Children and Families, 2004; Chaffin & Friedrich, 2004). CDIT focuses on enhancing the caregiver–child attachment relationship by providing caregivers with concrete skills to increase the emotional reciprocity in the caregiver–child

interactions while using differential social attention (DSA) to manage child behavior (Harwood & Eyberg,2006; Herschell & McNeil, 2005). DSA is a paradigm of attending to positive behavior (e.g., playing gently and sharing) and ignoring negative child behavior (e.g., throwing temper tantrums or screaming to get attention) to help children quickly learn a new approach to seeking caregivers attention that is positive and cooperative. Providing CDIT as a stand-along intervention would also be relatively brief. The average number of CDI sessions required to meet mastery is around 6 sessions.The second phase of PCIT, the Parent Directed Interaction (PDI) includes a specific discipline procedure parents are taught for managing more severely defiant behaviors. The PDI is a powerful intervention that may be unnecessary for most kinship families given that (a) most children in kinship foster care have less severe behavior problems than other foster children, and (b) CDIT can reduce behavior problems to below clinical cut-off for almost half of children who present with a clinically significant behavior disorders.

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	less severely behavior disordered children in kinship care
Study dates	Not reported
Duration of follow-up	postintervention
Sources of funding	University of Florida College of Public Health and Health Professions Graduate Research Award, the Center for Pediatric Psychology and Family Studies Research Award, and the National Institute of Mental Health
Inclusion criteria	Age ages 2 to 7 Care situation Kinship care; expected to retain child for the duration of the study

	Behavioural needs ad a caregiverrating one standard deviation above the normative mean on the Problem Scale of the Eyberg Child Behavior Inventory Caregivers
Sample size	15
Split between study groups	Child-directed Interaction Training = 8 Wait-list control = 7
Loss to follow-up	Completing at least partial assessment Child-directed Interaction Training = 1 Wait-list control = 0
% Female	57.14%
Mean age (SD)	65.14 ± 14.11 months
Condition specific characteristics	Non-white ethnicity 42.85% (percentage minority)
Outcome measures	Behavioural outcome 1 Change in discipline practices (Daily Discipline Inventory) postintervention: Critical Verbal Force (%): 9.12 ± 10.11 (p=0.03 adjusting for baseline score); Non-critical verbal force: 17.50 ± 9.31 (p=0.21 adjusting for baseline score); Limit setting: 52.23 ± 14.33 (p=0.05 adjusting for baseline score) Relationship outcome Child-parent relationship scale mean score (CPRS) postintervention: 45.71 ± 3.99 (p=0.05 adjusting for baseline score) relationship outcome 2 Parent-child interactions (Dyadic Parent–Child Interaction Coding System: Fourth Edition - DPICS-IV) at postintervention: positive following mean score: 26.56 ± 5.64 (p=0.001 adjusting for baseline score); Negative leading score: 6.30 ± 2.77 (p=0.001 adjusting for baseline score)

	Behavioural outcome 3 Child behaviour mean score (Child Behavior Checklist) at postintervention: externalising score: 56.71 ± 8.75 (p=0.03 adjusting for baseline score); internalising score: 53.29 ± 6.78 (p=0.97 adjusting for baseline score)

Wait list control (N = 7)
Wait list control, no further details. The CDIT condition received $15 for completion of the follow-up assessment. The Wait-List Control (WLC) condition was paid $15 for completion of their post-treatment assessment in order to provide equal compensation for both conditions

Inclusion criteria	Age ages 2 to 7 Care situation Kinship care; expected to retain child for the duration of the study Behavioural needs ad a caregiverrating one standard deviation above the normative mean on the Problem Scale of the Eyberg Child Behavior Inventory Caregivers
Outcome measures	Behavioural outcome 1 Change in discipline practices (Daily Discipline Inventory) postintervention: Critical Verbal Force (%): 23.86 ± 8.03; Non-critical verbal force: 23.00 ± 6.98; Limit setting: 30.29 ± 20.06. Relationship outcome Child-parent relationship scale mean score (CPRS) postintervention: 40.14 ± 4.95 relationship outcome 2 Parent-child interactions (Dyadic Parent–Child Interaction Coding System: Fourth Edition - DPICS-IV) at postintervention: positive following mean score: 4.00 ± 3.82; Negative leading score: 48.33 ± 23.58 Behavioural outcome 3 Child behaviour mean score (Child Behavior Checklist) at postintervention: externalising score: 66.43 ± 9.89; internalising score: 55.57 ± 13.29

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 provided to assess the success of randomization. No blinding and many of the outcomes are fairly subjective.) **Overall Directness** Partially applicable (USA study)

Pasalich 2016/Spieker 2014/Spieker 2012

Study type	Randomised controlled trial (RCT) ORIGINAL TRAIL SPIEKER 2012
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	6-month follow up and 2-year follow up
Sources of funding	National Institute of Mental Health and the National Institute of Child Health and Human Development.
Inclusion criteria	Age aged between 10 - 24 months 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).
Sample size	210
Split between study groups	PFR: 105 EES: 105
Loss to follow-up	16 participants (5 lost to the EES intervention and 11 lost to the PFR intervention at 6 months)
% Female	44%
Mean age (SD)	18.01 ± 4.73 months
Condition specific characteristics	Placement changes 2.7 ± 1.6 placement changes Non-white 44.8%
Outcome measures	Social outcome 1 Social competence: measured by the Brief Infant Toddler Social and Emotional Assessment (BITSEA; Briggs-Gowan & Carter, 2002). Descriptions of positive social behaviors and problem behaviors in the last month were rated on a 3-point scale (not true/rarely; somewhat true/ sometimes; very true/often).

	Placement stability 1 Stability was coded as present if the child had remained with the study caregiver since randomization into the study, with no temporary intermediate moves. A state child welfare administrative database provided dates of a child's birth, entry into care, any placement changes while in care, when a discharge to a permanent placement occurred, and when a child re-entered care, if ever. A placement change was defined as any move to another home recorded in the data base, even if it was labeled as a short term or temporary placement after which the child returned to a familiar home. Permanency 1 Permanency required stability plus a legal discharge to the study caregiver. Permanency could include reunification and discharge to the study birth parent, adoption by the study kin or non-kin caregiver, or legal guardianship by the study kin Behavioural outcome 2 Problem behaviour: measured by the Brief Infant Toddler Social and Emotional Assessment (BITSEA; Briggs-Gowan & Carter, 2002). Descriptions of positive social behaviors and problem behaviors in the last month were rated on a 3-point scale (not true/rarely; somewhat true/ sometimes; very true/often). Relational outcome 1 Attachment security: The primary child outcome of attachment security was measured with the Toddler Attachment Sort-45, which was scored immediately after each research home visit. The TAS45 is a 45-item modified version of the Attachment Q-Sort (AQS; Waters, 1987), a gold standard attachment measure which has been extensively validated. Authors used a sorting technique that the developers of the TAS45 termed trilemmas in which the 45 descriptive statements are presented in specific sets of three. The three items in a sample trilemma are: "Child wants to be at the center of mother's attention"; "Child is very independent"; "Child will go towards mother to give her toys, but does not touch nor look at her". The observer decides which one of the three statements in the set is most like and which is least like the child's behavior during the observation just completed. Each of the 45 statements appears in two trilemmas; there are 30 trilemmas in all. The scoring results in an overall security score. Two research visitors were trained to administer the TAS45 by the first author; in 16% of visits the TAS45 was coded by the two raters on-site. Inter-rater reliability was r = .92. Relational outcome 2 Engagement: Scored from the Indicator of Parent-Child Interaction (IPCI; Baggett, Carta, & Horn, 2009). Items such as "positive feedback", "sustained engagement", and "follow through (including turn-taking)" were coded on a 4-point scale (never, rarely, sometimes, or often). Reliability was assessed by the IPCI trainer on 34% of coded episodes across all three time points. IPCI inter-rater agreement ranged from r = .80 to r = .84. Behaviour outcome 3 Child Behaviour Checklist: Descriptions of behavior in the last two months were rated on a 3-point scale (not true; somewhat true/sometimes; very true/often). Four scales were used: Internalizing (36 items; Alpha = .80), Externalizing (24 items; Alpha = . 90), Sleep problems (7 items; Alpha = .70), and Other Problems (32 items; Alpha = .70). Behavioural outcome 4 Emotional regulation and orientation/engagement: At baseline and again at the six month follow-up data collectors used 1 – 5 scales to rate the child's behavior during administration of the Bayley-III Screening Test (Bayley, 2005) on seven of ten items from the Emotional Regulation factor and six of nine items from the Orientation/Engagement factor from the Bayley Behavior Rating Scales (Bayley 1993).
Study arms	**Promoting First Relationships (N = 105)** Caregiver-toddler dyads (n = 105) 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.

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	6-month follow up and 2-year follow up
Sources of funding	National Institute of Mental Health and the National Institute of Child Health and Human Development.
Sample size	210
Split between study groups	PFR: 105 EES: 105
Loss to follow-up	16 participants (5 lost to the EES intervention and 11 lost to the PFR intervention at 6 months)
% Female	40%
Mean age (SD)	17.96 ± 4.97 months

Condition specific characteristics	Placement changes 2.67 ± 1.66 placement changes Non-white 51.4%
Outcome measures	Social outcome 1 Social competence score postintervention (Brief Infant Toddler Social and Emotional Assessment), mean: 16.38 ± 3.19; Social competence score at 6 months (Brief Infant Toddler Social and Emotional Assessment), mean: 17.53 ± 3.28 Placement stability 1 PFR vs comparator for placement stability at 2 years, odds ratio (95%CI): 1.19 (0.63 to 2.27), adjusted for foster/kin placement, age of child, months in child welfare, number of prior placements, multiple removals, foster carer commitment. Permanency 1 PFR vs comparator, Permanency over 2 years follow up, odds ratio (95%CI): 1.72 (0.73 to 4.04), adjusted for foster/kin placement, age of child, months in child welfare, number of prior placements, multiple removals, foster carer commitment Behavioural outcome 2 Problem behaviour postintervention (Brief Infant Toddler Social and Emotional Assessment), mean: 10.81 ± 6.45; Problem behaviour at 6 months (Brief Infant Toddler Social and Emotional Assessment), mean: 9.88 ± 5.74 Relational outcome 1 Attachment security score postintervention (Toddler Attachment Sort-45), mean: 0.58 ± 0.30. Attachment security score at 6 months (Toddler Attachment Sort-45), mean: 0.53 ± 0.37 Relational outcome 2 Engagement score (Indicator of Parent-Child Interaction) at postintervention: 2.08 ± 0.53. Engagement score (Indicator of Parent-Child Interaction) at 6 months: 2.29 ± 0.51 Behaviour outcome 3 Child Behaviour Checklist at 6 months, mean scores: internalising problems: 7.39 ± 5.85; externalising problems: 12.87 ± 8.55; Sleep problems: 2.27 ± 2.17; other problems: 9.18 ± 6.13 Behavioural outcome 4 Emotional regulation and orientation score at 6 month follow up: emotional regulation: 4.13 ± 0.69; orientation: 4.41 ± 0.49
Early Education Support (N = 105) Those randomized to the comparison condition (n = 105) 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.

% Female	47.6%
Mean age (SD)	18.06 ± 4.49 months
Condition specific characteristics	Placement changes 2.70 ± 1.51 placement changes Non-white 38.1%
Outcome measures	Social outcome 1 Social competence score at postintervention (Brief Infant Toddler Social and Emotional Assessment), mean: 16.38 ± 3.19. Social competence score at 6 months (Brief Infant Toddler Social and Emotional Assessment), mean: 17.94 ± 2.77 Behavioural outcome 2 Problem behaviour at postintervention (Brief Infant Toddler Social and Emotional Assessment), mean: 10.72 ± 6.08. Problem behaviour at 6 months (Brief Infant Toddler Social and Emotional Assessment), mean: 9.09 ± 5.76 Relational outcome 1 Attachment security score postintervention (Toddler Attachment Sort-45), mean: 0.54 ± 0.29. Attachment security score at 6 months (Toddler Attachment Sort-45), mean: 0.55 ± 0.28 Relational outcome 2 Engagement score at postintervention (Indicator of Parent-Child Interaction), mean: 2.15 ± 0.49. Engagement score at 6 months (Indicator of Parent-Child Interaction), mean: 2.38 ± 0.50 Behaviour outcome 3

	Child Behaviour Checklist at 6 months, mean scores: internalising problems: 7.55 ± 4.88; externalising problems: 13.94 ± 8.35; Sleep problems: 3.12 ± 2.88; other problems: 9.99 ± 5.36 Behavioural outcome 4 Emotional regulation and orientation/engagement score at 6 months follow up: emotional regulation: 4.01 ± 0.61; orientation: 4.38 ± 0.53
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Some concerns (Unclear if allocation concealment. participants in PFR were more likely to have been removed from birthparents home more than once) **Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)** Low (fidelity outcomes reported and appears to be modified intention to treat analysis) **Domain 3. Bias due to missing outcome data** Some concerns (a significant proportion of attrition was as a result of change in caregiver which could be directly related to child outcomes. However, the proportion of attrition was similar between groups.) **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 (Particularly large loss to follow up) **Overall Directness**

	Indirectly applicable (USA based study)

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	

Price 2015/Price 2019

Study type	Randomised controlled trial (RCT)

Study location	USA
Study setting	Children in foster care
Duration of follow-up	postintervention
Sources of funding	National Institute of Mental Health
Inclusion criteria	Care situation foster and relative (kinship) families caring for a child received from San Diego County Child Welfare Services; in current placement for at least 30 days; at least one other child in the home Caregivers had not previously received the KEEP intervention
Exclusion criteria	health problems the focal child was not considered to be “medically fragile” (that is, not severely physically or mentally handicapped
Sample size	354
Split between study groups	KEEP = 179 Control = 175
Loss to follow-up	KEEP = 31 Control = 31 In addition 16 from the intervention group and 11 from the control group moved out during intervention....
% Female	not reported for the total sample
Mean age (SD)	not reported for the total sample

Outcome measures	Behavioural outcome 1 Child behavioural problems and associated parental stress mean score (Parent Daily Report - PDR) at postintervention: The Parent Daily Report Checklist (PDR: Chamberlain and Reid 1987) was used to assess child behavior problems and the degree of parental stress (being upset) associated with these problems. The PDR is a 31-item measure of child behavior problems, often administered via the telephone. During each call, a trained interviewer asks the parent the following question: "Thinking about (child's name), during the past 24 h, did any of the following behaviors occur?" Parents are then read the list of 31 behaviors and asked to indicate either "yes" or "no" to whether the behavior occurred. For each behavior that occurred, parents were asked to rate "how upset you were by that behavior," with rating choices of 0=Not at all; 1= Somewhat/a little; and 2=Quite a lot. Next, parents are asked questions about their parenting practices with this child within the last 24 h. The PDR is structured so that parents only need to focus on recalling the past 24 h, thus avoiding potential bias from attempting aggregate recall or estimates of frequency.
Study Arms	**Care as usual (N = 171)** Parents in the control group participated in routine parent training and group support provided by local service agencies.

Study type	Randomised controlled trial (RCT)
Study location	USA
Duration of follow-up	postintervention
Sources of funding	National Institute of Mental Health
Sample size	354
Split between study groups	KEEP = 179 Control = 175
Loss to follow-up	KEEP = 31 Control = 31 In addition 16 from the intervention group and 11 from the control group moved out during intervention....

% Female	Focal child: 49% Focal sibling: 53%
Mean age (SD)	Focal child: 7.32 ± 2.3 years Focal sibling: 8.0 ± 4.0 years
Condition specific characteristics	Non-white ethnicity 82%
Outcome measures	Behavioural outcome 1 Child behavioural problems and associated parental stress mean score (Parent Daily Report - PDR) at postintervention, focal child/focal sibling: Child behaviour problems: 3.72 ± 3.54/3.30 ± 3.61. Parental stress associated with behaviour: 5.80 ± 6.50/5.53 ± 6.55. For behavior problem scores on the focal child, significantly larger decreases in scores from the pretest to posttest were found for the intervention group (B=−1.39, p<0.001) relative to the control group (B=−0.66, p=0.005). For behavior problem scores on the focal sibling, significantly larger decreases in scores from the pretest to posttest were also found for the intervention group (B=−0.95, p<0.001) relative to the control group (B=−0.41, p=0.055). There was a statistically significant group × time interaction for parental stress scores on the focal child (B=−1.84, p<0.001), and focal sibling (B=−0.98, p<0.001).

KEEP intervention group (N = 164)

Participants in the intervention group received 16 weeks of training, supervision, and support in behavior management methods. Intervention groups consisted of 3 to 10 foster parents and were conducted by a trained facilitator and co-facilitator team. Curriculum topics were designed to map onto protective and risk factors that were been found in previous studies to be developmentally relevant malleable targets for change. The primary focus was on increasing use of positive reinforcement, consistent use of non-harsh discipline methods, such as brief time-outs or privilege removal over short time spans (e.g., no playing video games for one hour, no bicycle riding until after dinner), and teaching parents the importance of close monitoring of the youngster's whereabouts and peer associations. In addition, strategies for avoiding power struggles, managing peer relationships, and improving success at school were also included. Sessions were structured so that the curriculum content was integrated into group discussions and primary concepts were illustrated via role-plays and videotaped recordings. Home practice assignments were given that related to the topics covered during sessions in order to assist parents in implementing the behavioral procedures taught in the group meeting. If foster parents missed a parent-training session, the material was delivered during a home visit (20% of the sessions). Such home visits have been found to be an effective means of increasing the dosage of the intervention for families who miss interventions sessions. Parenting

	groups were conducted in community recreation centers or churches. Several strategies were used to maintain parent involvement, including (a) provision of childcare, using qualified and licensed individuals so that parents could bring younger children and know that they were being given adequate care, (b) credit was given for the yearly licensing requirement for foster care, (c) parents were reimbursed $15.00 per session for traveling expenses, and (d) refreshments were provided. Attendance rates were high: 81% completed 80% or more of the group sessions (12+), and 75% completed 90% or more of the group sessions (14+). The intervention was implemented by paraprofessionals who had no prior experience with the MTFC behavior management model or with other parent-mediated interventions. Rather, experience with group settings, interpersonal skills, motivation and knowledge of children were given high priority in selecting interventionists. Interventionists were trained during a 5-day session and supervised weekly where videotapes of sessions were viewed and discussed.
	% Female: Focal child = 47% Focal sibling = 48%
	Mean age (SD): Focal child = 7.84 ± 2.5 years Focal sibling = 8.44 ± 3.9
	Condition specific characteristics: Non-white ethnicity focal child: 89%
	Outcome measures: Behavioural outcome 1 Child behavioural problems and associated parental stress mean score (Parent Daily Report - PDR) at postintervention, focal child/focal sibling: Child behaviour problems: 3.65 ± 3.77/3.10 ± 3.43. Parental stress associated with behaviour: 5.59 ± 6.58/4.97 ± 6.58
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 (Method of randomization not provided. No baseline characteristics provided to assess the success of randomization. No blinding and many of the outcomes are fairly subjective.) **Overall Directness** Partially applicable (USA study)

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)

Sprang 2009

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	early years foster children with attachment problems
Study dates	not reported
Duration of follow-up	postintervention
Inclusion criteria	Age younger than 6 mental health or emotional needs neither the child or caregiver had begun taking prescribed psychotropic drugs within three months preceding pretest data collection.

Exclusion criteria	Mental health the presence of active, severe mental illness as defined by active psychosis, mania, or if either party was imminently suicidal/homicidal, and/or suffering from mental retardation
Sample size	58
Split between study groups	intervention = 29 dyads waitlist control = 29 dyads
Loss to follow-up	intervention = 3 waitlist control = 2
% Female	not reported for total sample
Mean age (SD)	not reported for total sample
Outcome measures	Behavioural outcome 1 Caregiver-reported internalising behaviour/externalising behaviour mean score (CBCL) at postintervention. Two versions of the Child Behaviour Checklist (CBCL) were used in this study, the CBCL for ages 1 ½ to 5 (Achenbach, & Rescorla, 2000), and the CBCL for ages 4–18 (Achenbach, 1991). These instruments are designed to obtain descriptions of the competencies and behavioural and emotional problems of children, as seen by their caregivers. Because of the differential formatting of the age-specific scales, two summary subscales were computed for use in this study: an internalising score formed by the withdrawn, somatic complaints and anxious-depressed domains; and an externalising score formed by the delinquent behaviour and aggressive behaviour domains. Higher T-scores indicate higher levels of disturbance. The Achenbach scales are widely used and have good internal consistency. Relationship outcome Child abuse potential mean score (Child Abuse Potential Inventory) at postintervention. The Child Abuse Potential Inventory (CAPI) (Milner, 1990) is a 160-item, self-report questionnaire that is answered in an agree/disagree forced choice format and includes a 77-item physical abuse scale, which yields a total abuse score that measures the degree to which the respondent shares interpersonal characteristics with known physical abusers. The total physical abuse scale is divided into three factor scales that represent caregiver psychological difficulties and three factor scales that represent interactional problems the caregiver is having with their child, the family and others. Items on the CAPI correspond directly to the key ingredients for the formation of a secure attachment, correctly identifying and interpreting cues, responding compassionately and sensitively, displaying affection and acceptance of a child's behaviour and feelings. Items ask caregivers to agree or disagree to statements such as: "picking up a baby when he cries spoils him", "a crying child will never be happy", "a five year old who wets the bed is bad", "children should always make their parent's happy" and "I usually punish my child when it is crying". Higher total abuse scores indicate that the individual is at increased risk of perpetrating acts of physical abuse and has more troubled parent-child relationships, as well as other interpersonal and intrapersonal struggles. According to Milner (1990), a raw score of 240 or greater is indicative of a high potential for physical abuse, while scores that fall in the range of 166 and 214 suggest a tendency for abuse. The CAPI also contains three validity scales: a lie scale, a random response scale, and an inconsistency scale. The validity scales are used in various combinations to form three response distortion indexes: the faking-good index, the faking-bad index, and a random response index. In this study, there were six CAPI records that were excluded from analyses due to elevations on one of these response distortion indices. relationship outcome 2

	Parenting stress in the caregiver-child relationship (PSI) mean score at postintervention. Parenting Stress Index–Short Form (PSI/SF) (Abdin, 1995). The 36-item PSI/SF was used to evaluate the level of parenting stress in the caregiver-child relationship. A higher score on each of the subscales represents a higher degree of stress in that area. In this study, the total score was used to measure changes in overall parenting stress. The alpha coefficient for this subscale is .85.
Study Arms	**Attachment and Biobehavioural Catchup Intervention (ABC) (N = 26)** the Attachment and Biobehavioural Catchup Intervention (ABC) (Dozier, Dozier & Manni, 2002) is based on the premise that maltreated children often engage in resistant-avoidant behaviour with their foster parents, and, in turn the caregivers reciprocate by withdrawing from the child (Stovall-McClough & Dozier, 2004). This manualised intervention helps caregivers learn optimal sensitive parenting behaviour (Dozier & Higley et al., 2002), which teaches the child to develop a dependence on external regulation assistance and learn self-regulation strategies. Teaching caregivers to persist with love and nurturance when the child is rejecting of the caregiver's attention is a tool to help young children learn to trust and rely on the care of their foster parent. An important strategy for helping caregivers achieve this behaviour consistently is to assist them in managing their own emotional reactions to a child's perceived rejection and withdrawal through coaching and mentoring. The sessions focus on the issues of providing a nurturing relationship, a responsive interpersonal world, and a predictable environment for the child. The sessions begin with the presentation of important concepts and theories and are primarily didactic in nature. Over time, the foster/adoptive parents become more involved as the sessions become interactive. Session content is sequenced so that the easiest concepts for most caregivers to accept (i.e., that their infant may push them away) is introduced first followed by specific attention to the intrapersonal issues related to the caregiver's difficulties in providing consistent, responsive and nurturing care. Several intervention components with demonstrated efficacy address three targeted issues for young children and their caregivers in foster care. Component 1: The child's inability to elicit nurturance; Component 2: Caregiver discomfort in providing nurturance and behavioural, emotional and neuroendocrine dysregulation. Parents and their children were videotaped during every session beginning with Session 2. These videos were critical to making the material directly relevant to the particular caregiver and helping them work on their specific issues with their children. Sessions were conducted in the caregivers' homes, and babysitters were provided. Additionally, a monthly support group was held for all of the participant families. Treatment Fidelity was maintained by adherence to written guidelines in the clinician's manual, which provided a detailed description of the intervention protocol. A bi-weekly treatment team meeting was held to discuss and remedy any potential barriers to protocol compliance, and all sessions were videotaped for review by a clinic director, who was trained and experienced in the intervention. Study dates: not reported

Duration of follow-up	postintervention
Sample size	58
Split between study groups	intervention = 29 dyads waitlist control = 29 dyads
Loss to follow-up	intervention = 3 waitlist control = 2
% Female	85%
Mean age (SD)	39.9 ± 6.09
Condition specific characteristics	Non-white ethnicity 15%
Outcome measures	Behavioural outcome 1 Caregiver-reported internalising behaviour/externalising behaviour mean score (CBCL) at postintervention: 45.39 ± 6.49/49.13 ± 4.79. Change in scores from baseline: -18.81/-17.67. In intent-to-treat analysis change scores showed a significant difference compared control group: CBCL externalising change scores (p = .05) and CBCL internalising change scores (p = .01). Relationship outcome Child abuse potential mean score (Child Abuse Potential Inventory) at postintervention: 53.5 ± 36.3. Change in scores from baseline: -135.02. In intent-to-treat analysis change scores showed a significant difference compared control group: p=0.05 relationship outcome 2 Parenting stress in the caregiver-child relationship (PSI) mean score at postintervention: 45.18 ± 26.76. Change in scores from baseline: -86.98. In intent-to-treat analysis change scores showed a significant difference compared control group: p=0.01

Wait list control (N = 27)

All participants were invited to join a biweekly support group of pre and post adoptive parents who were receiving services from the clinic. The content of these support sessions was determined by the participants and facilitated by a master-level facilitator. These 90 minute sessions focused on problem solving issues related to interfacing with the state public child welfare system and the provision informal mentoring via partnerships with seasoned and new foster parents. Since group membership included many individuals who were not yet receiving relational intervention, content specific to the treatment protocol was not discussed, and participants were referred back to their treating therapist for assistance in dealing with those issues.

Study dates	not reported
Duration of follow-up	postintervention
Sample size	58
Split between study groups	intervention = 29 dyads waitlist control = 29 dyads
Loss to follow-up	intervention = 3 waitlist control = 2
Mean age (SD)	35.5 ± 6.13
Condition specific characteristics	Non-white ethnicity 7%
Outcome measures	Behavioural outcome 1 Caregiver-reported internalising behaviour/externalising behaviour mean score (CBCL) at postintervention: 64.36 ± 15.34/69.08 ± 14.82. Change in score from baseline: -3.92/-3.82 Relationship outcome

	Child abuse potential mean score (Child Abuse Potential Inventory) at postintervention: 189.36 ± 38.29. Change in score from baseline: 0.34 relationship outcome 2 Parenting stress in the caregiver-child relationship (PSI) mean score at postintervention: 134.76 ± 24.08. change in score from baseline. -5.77
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 (Not true randomization: Every 4th case was a control. Therefore, it might have been possible to predict who would be a control etc. No blinding and outcomes were fairly subjective.) **Overall Directness** Partially applicable (USA 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)*

Section	Question	Answer
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 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)*

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 Holen 2017

Study type	Randomised controlled trial (RCT)
Study location	Belgium
Study setting	Children in new foster care placements with behavioural problems
Study dates	January 2011 to May 2013
Duration of follow-up	post intervention and 3 months follow up
Sources of funding	Vrije Universiteit Brussel
Inclusion criteria	Age 3 - 12 years Care situation oster parents of new foster care placements with a long-term perspective (>1 year)

	Behavioural needs Foster parents were eligible if their foster child had a borderline or clinical score on the externalizing broad-band or on one of the externalizing small-band scales of the Child Behaviour Checklist
Exclusion criteria	Care situation Foster placements where at least two of the following criteria were present: 1) foster parents considered terminating the foster placement during the past two months 2) were experiencing psychological distress (measured with the General Health Questionnaire (GHQ; Koeter & Ormel, 1991) and defined as a score ≥ 2) 3) their foster child had a sum score above 3 (for children < 6 years) or 5 (for children ≥ 6 years) on the critical CBCL-items. Caregiver characteristics Foster parents: with a mental/psychological disorder; who were involved in divorce proceedings; who have low cognitive ability; who are already receiving professional support for the foster child's externalizing problems Language Caregiver with insufficient knowledge of Dutch Clinical/health problem uses psychotropic medication in an inconsistent way; behavioral problems are the result of medical problems or medication, Special educational needs learning disability; autism
Sample size	63 participants
Split between study groups	Social learning theory-based training: 30 Care as Usual: 33
Loss to follow-up	Social learning theory-based training: 3 Care as Usual: 0
% Female	52.4%
Mean age (SD)	6.14 ± 2.60 years
Condition specific characteristics	Placement changes Most (77.8%) of the foster children were previously placed in out-of-home care. The current foster placement had a mean duration of 36.20 months (sd=34.79).

	Care situation non-kinship placements: 55.6%
Outcome measures	Behavioural outcome 1 Foster children's behavioural problems were measured with the Child Behaviour Checklist (CBCL/1.5-5-CBCL/6-18; Achenbach & Rescorla 2000, 2001). For 99 (for children younger than 6 years) and for 118 (for children over 6 years) concrete behavioural, emotional and social problems, foster mothers were asked to indicate how often these behaviours occurred (0=not true, 1=somewhat or sometimes true, 2=very true or often true). The instrument provides scores for some problem scales and three broad-band scales: internalizing, externalizing and total problems. Authors used the internalizing and externalizing scores as (general) indexes for internalizing (e.g. withdrawn, anxious, inhibited and depressed behaviours) and externalizing problem behaviour (e.g. rule breaking and aggressive behaviours). The authors of the CBCL suggest using a T-score ≥ 60 to discriminate between children with and without externalizing and/or internalizing problems (i.e. the cut-off score for borderline clinical range). Placement stability 1 Temporary (e.g. short stay at child psychiatric unit) or permanent (move to other care) breakdown over follow up from baseline to follow up (approximately 6.5 months) Relational outcome 1 Parenting stress (ijmegen Questionnaire for the Parenting Situation) at postintervention/3 month follow up: Foster mothers' parenting stress was measured using the Nijmegen Questionnaire for the Parenting Situation (NQPS; Robbroeckx & Wels 1996). Four subscales from the first part of this questionnaire (not feeling able to cope, experiencing problems in parenting the child, experiencing the child as a burden and wanting the parenting situation to be different) were used. The authors considered them as the core of parenting stress (28 items). The sum score of these four subscales is the measure of parenting stress (α0=0.95, α1=0.95, α2=0.96).
Study arms	**Social learning theory-based training (N = 30)** A detailed training manual including 10, usually weekly, home sessions was developed, describing the treatment's rationale, providing guidelines to therapists and outlining the sequence and contents of the sessions. The social interaction perspective on the development of behavioural problems and associated parenting skills (positive involvement, positive reinforcement, problem solving, effective limit setting and monitoring) was at the core of the programme. Based on a literature study on the specific needs of foster children, psychoeducation about attachment was included. The intervention has a modular design. An overview of the modules can be found in Fig. 2. Some modules are mandatory; others are optional and are only used when indicated. Guidelines about the use of these modules are included in the treatment protocol. The intervention takes a positive approach from the outset: enhancing the quality of the foster parent–foster child relationship and creating a positive atmosphere. The 'positive involvement' module involves psychoeducation about foster children's need for warmth and acceptance from their foster parents. Emotional communication skills (e.g. active listening, using I-messages) are discussed and practised. As homework assignment, foster parents are asked to introduce a daily 10-min play activity. The 'praising' module focuses on encouraging positive behaviour in the foster child (e.g. by giving verbal, non-verbal and indirect praise). The next two modules deal with creating predictability. The 'structure' module includes psychoeducation about how a good structure (e.g. introducing family routines) and clear expectations (e.g. formulating household rules) give foster children a sense of security. The 'effective commands' module deals with

	communicating expectations in an effective way (e.g. short, direct commands). To treat some specific behaviour, more actions may be needed. In the 'reward programme' module, tangible rewards are given for positive behaviours that have not increased sufficiently. This provides consistent positive reinforcement to increase these behaviours. Only after this positive approach, intervention practitioners address how to deal with misbehaviour. The 'effective limit setting' module provides psychoeducation about the basic principles of limit setting. Depending on the specific problem behaviours, a more elaborate discussion about effective limit setting can be conducted by offering one or more of the following optional modules. Each of these modules focuses on specific parenting behaviour to reduce specific remaining problem behaviours. The 'ignoring' module is proposed when foster parents often react (and thus give a lot of attention) to behaviours that are better ignored (i.e. frequently occurring mild misbehaviour such as whining). For misbehaviours that cannot be ignored (e.g. aggressive or destructive behaviour), foster parents are instructed to react consistently with a specific negative consequence ('logical consequence/loss of privilege' module). The 'time out' module is used to avoid escalation by the foster child and foster parents (i.e. putting the child in time out for specific aggressive or destructive behaviour before the situation escalates). The remaining modules can be offered once the 'reward programme' module has been offered. The 'avoiding problems' module mainly deals with increasing the predictability of difficult situations (e.g. play dates, visits to the supermarket). Foster parents learn to plan these situations in advance and communicate clearly which behaviour is expected, and the consequences for positive behaviour and misbehaviour. The 'problem solving' module provides psychoeducation about a constructive, stepwise problem solving process (defining the problem, brainstorming solutions, making a plan, executing the plan and evaluation) and teaches the foster parent how they can help their foster child to solve problems. The 'autonomy and monitoring' module provides psychoeducation about the importance of this parenting skill and offers tools to monitor young children's behaviour (e.g. asking concrete questions, checking if the child does what she/he is expected to do). Because a lack of autonomy may also occur, foster parents are helped to find a good balance in providing safety/control and stimulating autonomy (e.g. giving more responsibilities, asking the foster child's opinion). It may, furthermore, be necessary to enhance foster parents' reflective function. Two modules can be used for this purpose. The 'avoiding escalations' module provides psychoeducation about coercive processes. The therapist explores what makes it difficult for foster parents to avoid escalations (e.g. specific emotions, expectations) and what can help them to prevent escalations (e.g. relaxation). In the 'evaluating own parenting behaviour' module, foster parents are encouraged to critically reflect on their own parenting values and behaviours (e.g. influence of own parenting history on their values) in order to decrease resistance or help them maintain a certain approach. The final module 'a look at the future' offers foster parents a plan for dealing with future behavioural problems and tips for maintaining positive changes.

% Female	Not reported
Mean age (SD)	Not reported
Outcome measures	Behavioural outcome 1 Internalising problems postintervention/3 months follow up (Child Behaviour Checklist): 58.26 ± 10.47/56.73 ± 12.30; Externalising problems postintervention/3 months follow up (Child Behaviour Checklist): 64.51 ± 7.50/63.01 ± 8.96 Placement stability 1 1 families in the intervention group experienced temporary breakdown of placement over follow up, and 1 family experience permanent breakdown of placement placement (Relational outcome 1 Parenting stress (ijmegen Questionnaire for the Parenting Situation) at postintervention/3 month follow up: 67.40 ± 19.60/69.82 ± 20.36

Care as usual (N = 33)

The control group received treatment as usual. A regular foster care worker in Flanders monitors on average 25 foster care placements. He/she is very autonomous both in terms of the frequency of contact and the content of care offered. On average, a foster care worker has 11.5 face-to-face contacts a year per foster care placement, either with the foster parents, the foster child or the biological family. In addition, foster parents have access to external mental health services. There are large differences in the frequency and in the proportion of foster families that decide to accept such help. By registering foster care workers' activities during the intervention period, Authors found the number of personal contacts between a foster care worker and at least one member of the foster family varied from 0 to 8 (M=2.51, sd=1.79) and that 39.6% of the foster children received additional mental health services.

% Female	Not reported
Mean age (SD)	Not reported
Outcome measures	Behavioural outcome 1 Internalising problems postintervention/3 months follow up (Child Behaviour Checklist): 61.36 ± 9.92/63.35 ± 9.11; Externalising problems postintervention/3 months follow up (Child Behaviour Checklist): 65.94 ± 8.77/68.33 ± 7.46

	Placement stability 1 Over follow up, four temporary breakdowns in placement occurred in the control group Relational outcome 1 Parenting stress (ijmegen Questionnaire for the Parenting Situation) at postintervention/3 month follow up: 68.88 ± 16.06/74.61 ± 17.95
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** High **Domain 5. Bias in selection of the reported result** Low **Overall bias and Directness** High (No baseline characteristics of both arms to assess the success of randomisation. No blinding. Outcomes were measured by foster parents. This could lead to bias particularly since they were likely aware of the interventions.) **Overall Directness** Partially applicable (Study took place in Belgium)

Van Holen 2018

Study details

Study type	Randomised controlled trial (RCT)
Study location	Belgium
Study setting	three of the five Flemish provinces (Dutch speaking part of Belgium) - Foster Care
Study dates	July 2010 to September 2012
Duration of follow-up	post intervention and three months follow up
Sources of funding	The authors received no financial support for the research, authorship, and/or publication of this article
Inclusion criteria	Age children aged between 6 and 18 Care situation all new foster-care placements with a long-term perspective (>1 year) emotional or behavioural disorders Foster parents were eligible if their foster child had a borderline or clinical score on the externalizing broad band or on one of the externalizing small-band scales of the CBCL. In families with more than one eligible foster child, the foster child with more serious behavioural problems was considered in the study.
Exclusion criteria	Caregivers Foster parents who were currently involved in divorce proceedings or foster parents with a current mental health disorder, measured with the General Health Questionnaire (Koeter & Ormel, 1991) and defined as a score >= 2, were excluded. health problems intellectual disability, autism, unstable use of psychotropic medication (psychotropic medication use must have started at least 2 months before the start of the intervention and must be stable for at least 2 weeks before start of the intervention), and behavioral problems stemming from medical problems (e.g., Prader–Willi syndrome) or medication (e.g., anticonvulsive drugs)

Sample size	62 foster families randomised
Split between study groups	Intervention group = 31 families Control group = 31 families
Loss to follow-up	All were analysed
% Female	Gender of the foster child Intervention group = 51.6% Control group = 45.2%
Mean age (SD)	Age of the foster child in years 11.6 ± 3.46 years 12.3 ± 3.49 years
Condition specific characteristics	Type of care Foster care 100%
Outcome measures	Behavioural outcome 1 CBCL/6-18 (Achenbach & Rescorla, 2001). This questionnaire assesses child behaviour problems. For 118 concrete behavioural, emotional, and social problems, foster mothers were asked to indicate how often they had occurred on a 3-point scale. The results of the questionnaire form a total problem score, an internalizing and externalizing score, and eight problem scale scores. Authors used the internalizing, externalizing, and total problem scores as (general) indices for internalizing, externalizing, and overall behavioural problems. Behavioural outcome 2 Nijmegen Parenting Situation Scale (Nijmeegse Vragenlijst voor de Opvoedingssituatie—NVOS; Wels & Robbroeckx, 1996). This questionnaire measures parenting stress. Foster mothers indicate on a 5-point scale how closely concrete statements relate to them. Four scales from the first part of the questionnaire were used in this study. These scales are viewed as the core components of parenting stress by the authors of the NVOS: Coping ability refers to the feeling of being able to cope with the parenting situation. For example, ‘‘Raising . . . requires a lot of my strength.’’; Problem severity refers to the severity of the problems as experienced by foster mothers. For example, ‘‘I’m glad when . . . is out for some time (e.g., at school, with friends, playing outside).’’ Viewing parenting as a burden refers to the extent to which parenting this specific child is experienced as a burden. For example, ‘‘Raising . . . is a real burden for me.’’ Wishing for changes in the parenting situation refers to the extent to which foster mothers desire the parenting situation to change. For example, ‘‘Things should go really differently between me and . . . . . ’’

Study arms

Non-Violent Resistance (N = 31)

The intervention was an adaptation for foster families of the NVR treatment program for parents of violent and self-destructive children. NVR places escalation processes at the center of attention. The underlying assumption is that parental submission and power struggles are mutually enhancing and that they feed on and are fed by negative feelings. Foster parents, who previously felt helpless and were caught up in escalation with the foster child, are trained to effectively resist the foster child's negative behaviour without lashing out or giving in. To achieve this, NVR focuses on the following four intervention areas. 1) Prevention of escalation. Emotional regulation of foster parents is trained in order to prevent and halt escalating cycles. Foster parents learn to recognize escalatory patterns and identify their own and their foster child's typical reactions and the associated thoughts and feelings. Alternative ways of responding in non-escalating manners are taught and rehearsed. For example, foster parents learn to delay their response (''Strike the iron when it's cold!'') and to abstain from controlling and domineering messages (''You don't have to win, only to persist!''). 2) Resisting problem behaviour. The foster parents aim at resisting rather than controlling the child's negative behaviours. Depending on the risks and the foster child's specific problems, Omer (2004, 2011) developed well-documented techniques to help foster parents to resist problem behaviour in a respectful and nonviolent way: 3) Delivery of a formal announcement in which the foster parents declare their decision to resist the child's negative behaviours. This announcement is delivered in writing and read aloud by the foster parents. In accordance with the treatment's emphasis on parental self-control, it is written in the first person plural (''We will no longer accept . . . '') and not in the second person singular (''You will have to . . . ''). The announcement also stipulates that the foster parents will not keep the problems secret but will seek help from supporters. Foster parents rehearse how to deliver the announcement and how to develop non-escalating responses to the foster child's reactions. 4) Performance of ''sit-ins''. The foster parents enter the child's room at a quiet time, sit down, and announce that they will sit and wait for a proposal by the child to stop the problem behaviour that triggered the sit-in: ''We are here because we are no longer willing to accept the kind of behaviour you displayed. We will sit here and wait for a proposal as to how this behaviour might end.'' The foster parents are trained to remain quiet and strictly avoid arguments or escalation. The therapist helps them to develop ways of coping with typical reactions, such as attempts to expel them, ignore them, or deride them, and instructs them as to how to end the sit-in and resume daily life. The sit-in serves as a manifestation of resistance that does not depend on the child's compliance for success and that can be performed without escalating into negative cycles of aggression. 5) Documentation of negative behaviours. The foster child's unacceptable acts are documented by the foster parents, shown to the foster child, and distributed to the supporters. Foster parents tell their foster child that they are no longer keeping the events secret and that they will send their report to whomever they feel is appropriate. Supporters are specifically asked to address the foster child in a positive way, to make clear that they know what happened, and to offer help in finding solutions for stopping those behaviours. 6) Increasing supervision by telephone rounds or parental visitation. In the telephone rounds, foster parents react to the foster child's failing to come home in time. Foster parents call a previously prepared list of friends, acquaintances, and relevant contacts, telling them that their foster child has not come home, asking for help, and requesting them to tell the foster child that they are looking for him or her. Foster parents are rigorously instructed as to how to prevent escalation, once the foster child returns home. In the parental visitation, foster parents actually go to the place where the foster child spends his or her time without parental permission. They are instructed in detail on how to behave so as to prevent escalation. 7) Creating a network of support. Foster parents are encouraged to activate potential sources of support in their social network such as family, friends, acquaintances, and professionals (e.g., school staff). Involving other people in what is happening at home and seeking their help is a major factor in coping with the child's negative behaviour. Whenever possible, a meeting with the supporters is organized by the therapist to explain the purpose and principles of the treatment and to discuss how and when the supporters can help. When a supporters' meeting is not feasible, supporters are recruited on an individual base. Some typical roles of supporters are: to back the foster parents' acts of resistance, to offer emotional and/or practical help for foster parents and/or the foster child, to help in breaking the seal of secrecy that often surrounds negative behaviours, to mediate in situations of polarization, to help defuse situations of acute escalation, and to offer help in finding acceptable solutions. 8) Relational gestures. Foster parents are encouraged to initiate positive interactions by systematic relational gestures such as signs of appreciation, suggestions of shared activities, and symbolic gifts. Frequently used is the album or box of positive memories, which documents good times, and positive opinions about the child such as short stories, a ticket from a nice vacation, photos, and reminders of events such as a family trip, parties, and so on. Foster parents invite friends and members of the birth family to participate. These gestures are unilateral initiatives by the foster parents. They are independent of the foster child's behaviour and are aimed at promoting positive aspects of the parent–child relationship. They are acts of caring that show the foster parents' love independently of their ongoing resistance to the foster child's negative behaviours. The foster parent intervention consisted of 10, usually weekly, home sessions of 75 min and 1 telephone support session between every 2 home sessions. A detailed training manual was developed, describing the treatment's rationale, providing guidelines for each intervention area, and outlining the sequence and contents of the treatment sessions. The training manual, including training materials, can be obtained from the first author. The main modifications of the original program include (1) use of a home-visit format in order to lower barriers to service access; (2) development of practical aids, such as hand-outs, worksheets, a workbook for foster parents, and a DVD illustrating NVR techniques; (3) development of special components for foster families and foster children (e.g., guidelines describing when and how to involve members of the biological family in the support network, for instance to engage them in relational gestures); and (4) treatment administration by experienced foster-care workers who are best acquainted with the needs of foster families. Treatment in the experimental group was administered by three experienced foster-care workers who received special training in NVR consisting of 12 4-hr sessions. As part of the training, each therapist treated three foster families under close supervision. Treatment integrity and quality was ensured by fortnightly group supervision sessions.

Condition specific characteristics	Number of care placements Previous placements = 64.5% time in care Duration in care placement = 46.7 ± 53.54 months Type of care Foster care 100% Kinship = 54.8% non-kinship = 45.2% Type of household Single parent = 25.8% Two parent = 74.2% Number of children Biological = 1.74 ± 1.46 Foster = 1.55 ± 0.68

Treatment as Usual (N = 31)

The control group was given TAU. In Flanders, foster-care workers organize support for the foster child, optimize contacts with birth parents and family, and coach and train foster parents. More specifically, the support for foster-care situations comprises of at least seven face-to-face contacts a year. However, it is not defined with whom these contacts should take place. They can be with foster parents, foster children, birth parents, the wider context of the foster child (e.g., grandparents), and combinations of the parties involved (e.g., foster parents and foster child together). Furthermore, certain aspects of good practice (e.g., the use of care plans) are obligatory. Although foster-care workers have great autonomy within these guidelines, a caseload of 25 foster-care placements for a full-time foster-care worker hinders them from providing intensive support to foster parents. Herewith, nothing is said about the content of these contacts nor about the practices used by the foster-care worker. In addition to the regular foster-care support described above, foster parents have access to external mental health-care services for themselves or for their foster child. In short, the help offered during a foster-care placement is very diverse and heterogeneous and the support for foster families varies enormously. As a consequence, it is not unthinkable that

the TAU received by foster families in a control group differs considerably between participants. To control this factor, authors asked foster-care workers to register not only their own contacts with the foster family but also referrals to external mental health services.

Condition specific characteristics	Number of care placements Previous placements = 71.0% time in care Duration of placement = 35.1 ± 39.91 months Type of care Foster care 100% Kinship = 64.5% Non-kinship = 35.5% Number of biological children = 1.61 ± 1.26 Number of foster children = 1.42 ± 0.62 Single parent household = 22.6% Two parent household = 77.4%

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
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Low
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Some concerns

Section	Question	Answer
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 *(Study was from belgium)*

Van Ryzin 2012

Study type	Randomised controlled trial (RCT)
Study location	USA
Study setting	Girls with chronic delinquency referred to out-of-home care
Study dates	1997 to 2006
Duration of follow-up	12 months and 24 months
Sources of funding	National Institute on Drug Abuse, US Public Health Service,
Inclusion criteria	Age 13 - 17 years of age Behavioural needs mandated to community-based, out-of-home care due to problems with chronic delinquency 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 = 5 Group care = 8 (all were analysed)
% Female	100%
Mean age (SD)	1.31 SD 1.17 years
Condition specific characteristics	Non-white ethnicity 26%
Outcome measures	Behavioural outcome 1 Association between being in the intervention group and self-reported general delinquency at 24 months follow up: assessed by the Elliott General Delinquency Scale (Elliott, Huizinga, & Ageton, 1985) at baseline and 24 months. The 21- item sub scale records the number of times girls report violating laws during the preceding 12 months. Each item was capped at a maximum frequency of 7 prior to computing the total score. Relationship outcome Association between being in the intervention group and self-reported delinquent peers affiliation at 12 months follow up: assessed by the Describing Friends Questionnaire. Girls reported on the extent to which youth associate with friends who engage in delinquent activities. Each youth indicated how many of their friends engaged in 16 different antisocial activities (e.g., cheating on tests, stealing, and getting drunk) during the prior 6-month period on a scale from 1 (none of my friends) to 5 (all of my friends). Item scores were averaged to create a composite of delinquent peer affiliation. Criminal outcome Association between being in the intervention group and number of criminal referrals and number of days in locked settings over 24 months follow up: Criminal referrals were collected from state police records and circuit court data, which have been found to be reliable indicators of delinquent behavior. Authors collected juvenile court records data to determine the number of criminal referrals and related offenses over the 12 months prior to baseline and during the 24 months following baseline. The number of days spent in locked settings over the 12 months prior to baseline and during the 24 months following baseline was measured by girls' report of total days spent in detention, correctional facilities, jail, or prison using a structured interview that asked the girl about her whereabouts each day over the course of the year.
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 dates	1997 to 2006
Duration of follow-up	12 months and 24 months

Sources of funding	National Institute on Drug Abuse, US Public Health Service,
Inclusion criteria	Age 13 - 17 years of age Behavioural needs mandated to community-based, out-of-home care due to problems with chronic delinquency Gender Girls
Sample size	166
Split between study groups	MTFC = 81 Group care = 85
Loss to follow-up	MTFC = 5 Group care = 8 (all were analysed)
% Female	100%
Mean age (SD)	Study reported: "There were no group or cohort differences regarding the rates or types of pre-baseline offenses (e.g., arrests, drug use), documented cases of maltreatment (e.g., physical or sexual abuse), or on other demographic characteristics (e.g., race, age, family income, number of prior placements).
Outcome measures	Behavioural outcome 1 Association between being in the intervention group and self-reported general delinquency at 24 months follow up (assessed by the Elliott General Delinquency Scale): Beta -0.12 (-0.43 to 0.19). Adjusted for general delinquency score at baseline, number of criminal referrals, and number of days in locked settings at baseline. Raw mean score at 12 months: 0.66 SD 0.96; raw score at 24 months: 0.50 SD 1.05 Relationship outcome

		Association between being in the intervention group and self-reported delinquent peers affiliation at 12 months follow up (assessed using the Describing Friends Questionnaire): Beta -0.34 (-0.61 to -0.07). Adjusted for general delinquency score at baseline, number of criminal referrals, number of days in locked settings at baseline, and delinquent peers affiliation score at baseline. Raw mean score at 12 months: 1.97 SD 0.91; raw mean score at 24 months: 1.88 SD 0.89 Criminal outcome Association between being in the intervention group and number of criminal referrals and number of days in locked settings over 24 months follow up (assessed using a construct of self-report of days in locked settings and state police records/court data): Beta -0.37 (-0.68 to -0.06). Adjusted for general delinquency score at baseline, number of criminal referrals, and number of days in locked settings at baseline.
	Group Care (N = 85) 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.	
	Outcome measures	Behavioural outcome 1 self-reported general delinquency at 12/24 months follow up: Raw score at 12 months: 0.60 SD 1.08; raw score at 24 months: 0.62 SD 0.96 Relationship outcome self-reported delinquent peers affiliation at 12/24 months follow up: Raw score at 12 months: 2.34 SD 0.95; raw score at 24 months: 2.07 SD 0.97 Criminal outcome Association between being in the intervention group and number of criminal referrals and number of days in locked settings over 24 months follow up: Criminal referrals were collected from state police records and circuit court data, which have been found to be reliable indicators of delinquent behavior. Authors collected juvenile court records data to determine the number of criminal referrals and related offenses over the 12 months prior to baseline and during the 24 months following baseline. The number of days spent in locked settings over the 12 months prior to baseline and during the 24 months following baseline was measured by girls' report of total days spent in detention, correctional facilities, jail, or prison using a structured interview that asked the girl about her whereabouts each day over the course of the year.
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Some concerns (unclear method of randomisation and unclear if allocation concealment) **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 (Analysis plan was well described) **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)

Westermark 2011

Study type	Randomised controlled trial (RCT)
Study location	Sweden
Study setting	Youth with antisocial behaviour referred to MTFC or out-of-home care
Study dates	Not reported

Duration of follow-up	24-months postbaseline
Sources of funding	Institute for Evidence-Based Social Work Practices, National Board of Health and Welfare
Inclusion criteria	Behavioural needs Referred by the social agencies for intervention due to serious behavioural problems. Participants met the clinical diagnosis of conduct disorder according to DSM-IV-TR (American Psychiatric Association) and were at risk of immediate out-of-home placement.
Exclusion criteria	Care situation Ongoing treatment by another provider; behavioural needs Substance abuse without other antisocial behaviour; Sexual offending; placement of the young person in a foster home would cause a serious threat to the safety of a foster family. Mental health Imminent risk of suicide or acute psychosis
Sample size	35
Split between study groups	MTFC = 20 TAU = 15
Loss to follow-up	MTFC = 2 TAU = 2 (all participants were analysed)
% Female	48.6%
Mean age (SD)	15.4 SD 1.5
Condition specific characteristics	Non-white ethnicity "immigrant" = 25.7%

	Type of care Voluntary placement = 62.8%; Court ordered = 37.2%
Outcome measures	Behavioural outcome 1 Self-reported behaviour score at 24 months postbaseline: assessed using the youth self-report: The YSR was completed by 11 to 18-year olds and describes their own function. The measurement consists of two parts: a competence scale and a problem scale. In this study, only results from the latter were used. The problem scale contains 103 problem items and 16 socially desirable items. The youths were asked to rate each items for how well they described them during the last 6 months. In addition to a total problem score, the 103 problem items are combined to form eight narrow-band syndromes or scales and two broad-band dimensions. Behavioural outcome 2 Carer-reported behaviour score at 24 months postbaseline: assessed using the Child behaviour checklist. The CBCL for ages 6–18 (CBCL/6–18) is completed by parents or others who see the child in a home-like setting. In this study the mother completed CBCL. The measurement consists of two parts: a competence scale and a problem scale. In this study only the results from the latter were used. The mothers rated 113 items for how well they described their youth during the last 6 months. In addition to a total problem score, the 113 problem items are combined to form eight narrow-band syndromes or scales and two broad-band dimensions. The total problem score and the two broad-band dimensions (internalizing and externalizing problems) were used. The internalizing score includes somatic complaints and withdrawn and anxious or depressed syndromes. The externalizing score includes delinquent and aggressive syndromes.
Study arms	**Multidimensional Treatment Foster Care (MTFC) (N = 20)** MTFC is based on social learning and family system theories. The programme has two main goals: to decrease deviant behaviour and to increase pro-social behaviour. The treatment programme includes formalized cooperation between a treatment team and the youth's birth parents, school and social agencies. Case managers working full time with a small caseload (six families each) supervise the clinical team (family therapists, individual therapists and skills trainers) and the foster family. The MTFC team in this study was supervised once per month by an outside MTFC supervisor. The foster families were recruited by an advertisement in the local newspaper. To be accepted as foster parents in the programme they had to fulfil certain criteria set by the MTFC staff and the local social services agency. The training of the foster parents started with a 2-day theoretical and practical introduction to the programme. Training sessions were organized once every month for the foster parents during placement. The foster parents using a point and level system provide the young people with a structured, therapeutic living environment. They receive daily supervision and support from the programme case manager and are supervised weekly at foster parent meetings. A checklist (parent daily report checklist) is communicated in a brief telephone call daily to monitor programme progress; this allows the treatment team to follow the young person's behaviour on a daily basis. The foster parents have only one foster child placed at a time. The young person's parents participate in family therapy and are involved in developing the treatment plan. The family therapy in MTFC requires both young people and parents to participate in therapy session weekly for at least 10 months. The goal for the parents is to be more effective at supervising, encouraging, supporting and following through with consequences with their child. The case manager is available 24 hours per day. Home visits are an integral part of the reunification and start at about 3 weeks after placement. The visits are for the parents to demonstrate to their child that they are a part of the treatment. MTFC aims to

prepare for the reunion of the family when the young person has completed the treatment programme. The MTFC programme is described in a five-part manual, one part for each treatment role. The manual consists of components that describe how to run the programme. Adherence to the manual was considered throughout the programme processes. Some components in the manual are required. For example, the foster parents must complete the parent daily report checklist and report on the young person's performance on the point and level system daily. In addition, the team discussions and foster parents' supervision sessions were videotaped and sent for analysis. This information allowed the programme developer to follow continuously the training process of the MTFC site in Sweden. This process formed the basis for the MTFC certification of the Swedish site.

Study type	Randomised controlled trial (RCT)
Study location	Sweden
Study setting	Youth with antisocial behaviour referred to MTFC or out-of-home care
Study dates	Not reported
Duration of follow-up	24-months postbaseline
Sources of funding	Institute for Evidence-Based Social Work Practices, National Board of Health and Welfare
Exclusion criteria	Care situation Ongoing treatment by another provider; behavioural needs Substance abuse without other antisocial behaviour; Sexual offending; placement of the young person in a foster home would cause a serious threat to the safety of a foster family. Mental health Imminent risk of suicide or acute psychosis
Sample size	35

	Split between study groups	MTFC = 20 TAU = 15
	Loss to follow-up	MTFC = 2 TAU = 2 (all participants were analysed)
	% Female	50.0%
	Mean age (SD)	15.0 SD 0.7 years
	Condition specific characteristics	Non-white ethnicity "immigrant" = 35% Type of care Voluntary placement = 60%; Court ordered = 40.0%
	Outcome measures	Behavioural outcome 1 Self-reported behaviour score at 24 months postbaseline (youth self-report), mean score: Internalising behaviour - 9.1 SD 7.3; externalising behaviour - 14.2 SD 6.8; total problem behaviour score - 37.0 SD 19.0. Number with a minimum of 30% reduction in scores: Internalising behaviour - 11; externalising behaviour - 14; total problem behaviour score - 15. Behavioural outcome 2 Carer-reported behaviour score at 24 months postbaseline (CBCL), mean score: Internalising behaviour - 10.4 SD 9.0; externalising behaviour - 18.9 SD 11.4; total problem behaviour score - 38.6 SD 25.3. Number with a minimum of 30% reduction in scores: Internalising behaviour - 15; externalising behaviour - 15; total problem behaviour score - 16.
	Treatment as Usual (N = 15) The young people who were randomly assigned to the TAU group (n=fifteen) received intervention from the social agencies. In Sweden TAU does not normally include manualized treatment, behaviour modification or evidence-based programmes. In this study, seven youths were placed in residential care and five in foster care while three received home-based interventions. In the group placed in residential care, three continued treatment for one year. The rest of the residential group stayed in treatment for from 1 to 6 months and then continued with other interventions such as foster care, family therapy, mentorship	

with non-professional volunteers or home-based intervention. Some of the foster care group received individual therapy during placement. The home-based group received different interventions such as family therapy, mentorship with non-professional volunteers and drug testing.

Study type	Randomised controlled trial (RCT)
Study location	Sweden
Study setting	Youth with antisocial behaviour referred to MTFC or out-of-home care
Study dates	Not reported
Duration of follow-up	24-months postbaseline
Sources of funding	Institute for Evidence-Based Social Work Practices, National Board of Health and Welfare
Exclusion criteria	Care situation Ongoing treatment by another provider; behavioural needs Substance abuse without other antisocial behaviour; Sexual offending; placement of the young person in a foster home would cause a serious threat to the safety of a foster family. Mental health Imminent risk of suicide or acute psychosis
Sample size	35
Split between study groups	MTFC = 20 TAU = 15
Loss to follow-up	MTFC = 2

		TAU = 2 (all participants were analysed)
	% Female	46.6%
	Mean age (SD)	15.7 SD 1.2 years
	Condition specific characteristics	Non-white ethnicity "immigrant" = 13.3% Type of care Voluntary placement = 53.3%; Court ordered = 33.3%
	Outcome measures	Behavioural outcome 1 Self-reported behaviour score at 24 months postbaseline (youth self-report), mean score: Internalising behaviour - 13.3 SD 10.4; externalising behaviour - 16.7 SD 8.4; total problem behaviour score - 46.3 SD 26.6. Number with a minimum of 30% reduction in scores: Internalising behaviour - 6; externalising behaviour - 5; total problem behaviour score - 5. Behavioural outcome 2 Carer-reported behaviour score at 24 months postbaseline (CBCL), mean score: Internalising behaviour - 15.3 SD 10.3; externalising behaviour - 21.1 SD 12.2; total problem behaviour score - 55.1 SD 32.4. Number with a minimum of 30% reduction in scores: Internalising behaviour - 5; externalising behaviour - 5; total problem behaviour score - 6
Risk of Bias	**Domain 1: Bias arising from the randomisation process** Some concerns (it appears there were some problems with the randomisation process: "The research staff took responsibility for the randomization and for the assessment process. For the randomization a system of drawing lots was used. There were more young people in the MTFC group because, it seems, that referrers assumed their second referral would be allocated to TAU. Accordingly after the first seven referrals the system of randomization was changed." Unclear if allocation was concealed) **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**	

	Some concerns (11% attrition but missing data balanced between groups) **Domain 4. Bias in measurement of the outcome** Some concerns (no blinding procedures described, and outcomes were self-report, however validated measures were used) **Domain 5. Bias in selection of the reported result** Some concerns **Overall bias and Directness** Some concerns (Unclear process of randomisation and allocation concealment (but no differences observed at baseline. 11% attrition rate over follow up, but balanced between comparison groups; no blinding procedures followed and outcomes were self-reported; results were selected at one point of follow up) **Overall Directness** Partially applicable (Mark down twice for indirectness as this was a non-UK study and in addition participants were anti-social youth referred to out-of-home care, but may not initially have been looked after children.)

Qualitative evidence

Bywater 2011

Study Characteristics

Study type	Semi structured interviews Mixed methods RQ2.1
Aim of study	to establish the feasibility of delivery and the effectiveness of the IY parenting programme by piloting the programme with foster carers, comparing participants who attended an IY programme to those who had not, while establishing service use costs of foster carers and looked after children.
Study location	UK/Wales
Study setting	Foster care
Study methods	All facilitators completed a semi-structured interview to share experiences and views on their delivery of the programme to foster carers; it was the first time that any of the facilitators had delivered the programme to this client group. Unclear how feedback was extracted from foster carers. Thematic content analysis was used to assess (1) intervention foster carer feedback following programme attendance, and (2) facilitator feedback following first-time delivery of the programme to foster carers.
Population	Foster carers of children in foster care; facilitators delivering Incredible Years
Study dates	Not reported
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.
Exclusion criteria	None reported
Sample characteristics	Sample size Seven facilitators contributed to the qualitative evidence, it is unclear how many foster carers contributed to qualitative evidence

Relevant themes	Theme 1 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. Theme 2 Comments about the length and content of the programme - Suggestions to lengthen the programme to 14 weeks to include more on 'play' and 'problem-solving' sessions were valid 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. Theme 3 An intervention tailored to foster carers as a unique population and ability to share with peers in a group setting - 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. Theme 4 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 programmeto this sample to fully understand arising issues, for example, what is and is not considered acceptable as 'rewards' for looked after children. Theme 5 Difficulty in dealing with a large age range and professional nature of foster carers - Facilitators found the programme more challenging to deliver than usual because of the large age range of children under consideration (2–17 years) and 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.

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.

Risk of Bias

Section	Question	Answer
Aims of the research	Was there a clear statement of the aims of the research?	Yes *(Qualitative evidence was useful for the "feasability of delivery for the intervention" aspect of the study aims)*
Appropriateness of methodology	Is a qualitative methodology appropriate?	Yes
Research Design	Was the research design appropriate to address the aims of the research?	No *(Study design was unclear and no great detail for qualitative methods was provided)*
Recruitment Strategy	Was the recruitment strategy appropriate to the aims of the research?	Can't tell *(It is unclear which participants for the entire study were used to provided qualitative feedback for the foster carer participants. Participants contributing to the qualitative evidence were not described.)*
Data collection	Was the data collected in a way that addressed the research issue?	No *(No justification of study setting. Unclear how data was collected from foster carers. Unclear how interviews were conducted. Unclear what the form of the data was. 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

Section	Question	Answer
Data analysis	Was the data analysis sufficiently rigorous?	Can't tell *(Thematic analysis was used but there was no detailed description. Unclear if sufficient data was presented to support the findings. Unlcear if contradicotry data were taken into account. 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?	No *(Findings were only briefly summarised with no arguments for and against. Credibility of qualitative findings was not discussed. No triangulation, not respondent validation, unclear if more than one analyst used.)*
Research value	How valuable is the research?	The research has some value *(Unclear how representative the sample of foster carers was since they were not described for qualitative findings.)*
Overall risk of bias and directness	Overall risk of bias	High
	Directness	Directly applicable *(UK-based study)*

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)*
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)*

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	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

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 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 … 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"

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
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
Findings	Is there a clear statement of findings?	Yes *(and two analysts were used to improve credibility of findings)*

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	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)*

Section	Question	Answer
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..)*
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

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
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

Section	Question	Answer
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
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

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
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

Section	Question	Answer
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)*

Tullberg 2019

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

Section	Question	Answer
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)*
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)*

Rogers 2020

Study Characteristics

Study type	Semi structured interviews Evaluation of an intervention Sibling Camp
Aim of study	to explore children and young people's experiences of a sibling camp based in the United Kingdom
Study location	UK
Study setting	Participants in the Camp to Belong programmes for facilitating sibling contact among looked after children in the UK
Study methods	This qualitative study focused on a sibling camp intervention run by a national U.K. charity which was open to children from across the country. The study was undertaken by two researchers. Semi-structured interviews were conducted with young people who attended the sibling camp programme. A semi-structured interview schedule was used. The main areas covered were the camp experience (best bits of camp and the areas to improve), then we focused on participants experiences and perceptions of the sibling relationships and contact, including discussions about the frequency and quality of their contact before the camp, while at camp and after camp. 10 interviews were held at foster care homes, and one (at the request of a young person) was held at a coffee shop. The interviews were recorded digitally and then transcribed verbatim. Transcripts were stored securely and organized in NVIVO. Thematic analysis was used.
Population	looked after sibling groups attending a sibling camp for contact
Study dates	Not reported
Sources of funding	The University of Bath, Dean's Innovation Fund
Inclusion Criteria	Involvement in an intervention looked after young people attending a sibling camp

Exclusion criteria	None reported
Sample characteristics	Sample size 11 looked after young people. The sample included one sibling group of three and four sibling groups of two Type of care All the participants had been in foster care for over 12 months and were placed in long-term foster placements. Age ages ranged from 8 to 17 years old Ethnicity The sample included four young people who were White British, five who were mixed heritage and two young people with Lebanese heritage Other interventions received Three of the sibling groups of two had attended two camps; the sibling group of three had attended three camps, and the remaining sibling group of two had been attending for several years and had been to five camps
Relevant themes	Theme 1 Opportunities and special memories - Naseem: for me it was a fun weekend, and you want to have fun, especially with your brother. Data showed that these participants found the sibling camps to be a fun experience. Often camp also enabled them to take part in activities that they had never done before. The quotation from Dale really encapsulates the excitement the many of the young people conveyed when they talked about the activities and experiences they had at camp. INT: And what things have you liked about camp? Dale: Jet skiing, was my favourite INT: Cannot believe you go jet skiing, that sounds really cool. Dale: yeah, it's amazing a good opportunity, jet skiing, quad biking, high ropes, um, yeah, we do loads of stuff like that, a lot of stuff. Um, on our last one, we played airoball, which were fun … yeah, it's like trampolining where you have got a ball, it's like basketball on the trampoline, you have to shoot in the other person's hoop and then you get points. INT: Are they activities that you have done before? Dale: I done high ropes before, but the other stuff was the first time at camp There was also a sense of pride from some young people that they achieved something in taking part in the activities. This often involved them overcoming nerves or fears, which seemed to have built their confidence and self-esteem. Steve: I remember at the last camp on the high ropes there was this thing called the leap of faith and my little sister did that she was really brave because I did not want to do it. INT: What was that like then, was it a climbing thing? Steve: You climbed up stood on a ledge and then jumped across to grab a rail. I nearly backed out so I was surprised she did it. Everyone encouraged her though and we cheered her on I will always remember her after she was so happy. As this quotation above shows, the activities not only boosted the confidence of some of the participants for others, it also provided important memories. In Steve's words, he will always remember his sister after she made the 'leap of faith,' and in a context where he is separated and growing up apart from his younger sister, this fond recollection suggests the camp activities provided special memories for Steve to cherish. These memories are also documented by the staff with photographs and every child gets given a photo album after the camp. Theme 2 Relationship with staff - Sam: I got along with staff from the start … they were really supportive, they were nice to me. I can remember my first camp spending most of my time playing cards with staff. This quotation from Sam highlights how he felt the staff team was caring and supportive, which was a view shared by several participants. The participants suggested staff were skilled in settling people into the camp and making people feel welcomed and safe. The staff team came from backgrounds in education and youth work, and their skills in direct work with children were valued by the participants. The staff team were also very consistent, with the same core group working at the camps since its inception in 2009; this consistency

was recognized by the participants. The relationships with the staff group also seemed to extend beyond camp with the staff being contacted at the charities office to offer support. Kerry provided the following example of how she did that. Kerry: Once I was feeling really upset at my foster carers and I talked to one of the staff, you know, because I had the number, so I just called them up in the office, and they listened, they try and help. INT: You called the staff from camp. Kerry: Yeah. INT: Do you ever call your social workers in that sort of situation? Kerry: Not really to be honest, 'cos I do not know my social worker that well. I mean with camp, you get to spend a whole week with people there and they do look after you. You probably spend more time with people at camp in one week than you would with a social worker in years. The following quotation shows how the consistent staff team was recognized by the participants as skilled in responding calmly to children and young people. They also presented in the data as being instrumental in supporting the relationships between siblings, which at times as with any sibling group could be challenging. INT: Is it the same people you see, same staff every time? Billie: Yeah mostly, some of them just like some I have not seen them sometimes, just pop by on certain camps, but normally it's just Sarah, you know Gary, Diane the normal ones … They are the ones that come to like every camp. INT: And you think they do a good job of it. Billie: Yeah, definitely, they are amazing coming into every camp, dealing with kids for some time. Twenty-four hours a day, if I was an adult I could not do that. INT: No, why not? Billie: I would just have … I would just rage out at one point. Especially when we are all 'hangry' and arguing with each other! They are all calm and happy, I do not know how they do that!

Theme 3

Getting on and building bonds - Gary: We argued a lot, but after that because we had that time to argue we got to know each other better and that's why we know how to sort our situations out now. Rivalries and conflicts are well documented in the literature relating to siblings, and although the participants in this study were overwhelmingly positive about the camps, and the quality time it afforded them with their siblings, they did present how at times this involved its challenges. One of the participants Katie described how having a sibling 'wasn't always happy families.' This view was also shared by Laura who explained how camp helped with this. Laura: The thing is we do not always get on, we can both be stubborn and argue. INT: Does coming to camp kind of help with any of that though, spending time with your siblings? Laura: Yeah. INT: In what way is it helpful? Laura: Just helps like, feels like more, I cannot explain it, it helps, well obviously we know each other really well, but like it just helps us to kind of build on our like relationships. Yeah, and sort of get closer. The excerpt from the transcript below highlights how camp enabled Naseem and his brother to spend time together, which he felt enabled them to learn more about each other, have fun and get along. Naseem: Today me and my brother we get along very well and camp was a big part of that … it is important especially when siblings are separated they do not get to see each other a lot, but when you put them in the same bedroom for a whole week that's when they get to know each other more, and when you do activities … you get relaxed after a while. But it wasn't until after going to the second camp that's when I got used to it, me and my brother we were mature then and we got along better, and yeah so the second camp in terms of getting on with my brother was better… I did get to know my brother more. INT: Could you tell us more about that? What sort of things did you learn about him? Naseem: It's just about getting along. I think I got along more with my brother. I mean he's your brother and you are supposed to get along with him and so it happens naturally after a while when you get used to each other. That's how it felt, it felt natural it did not feel like we were on a mission, trying to sort problems out. We just got along and started to have fun. The following excerpt from Gary's interview shows how for some participants the camps seemed to strike an important balance between supervision and support from the staff with the space for the siblings to exercise their agency, share their feelings and thoughts with each other and strengthen their sibling bonds. Gary: Supervised contact is pretty nice but when you get to spend 5 days in an unsupervised environment, that is pretty freeing, it's open minded … You get to sort of feel free. It's sort of like when we were originally at home. It's not like contact like nothings stopping us like social worker, no laws, and no supervisor. It was sort of just us two and that second time at camp we really bonded together … For us we sort of felt like we could tell each other a lot of stuff about each other and what went on in the family … It took a lot off each other's shoulders. So, we got to sort our problems … it did feel very nice. Gary also valued the ability to spend time in the same bedroom together with his sibling, and this was felt to be a positive by other participants. Simon stated this was the thing he liked the most and what made the camps so much better than contact. INT: What did you like most? Simon: Actually, sort of sleep in the same room and staying overnight for that long period. … I like that part, it's so much better than contact. I did see him on contacts but that was the first time in about 4 years that I actually got to stay with him for more than 3 hours … so yeah especially we get to sleep in the same room. When Katie was asked if she sees her sister outside of camp, she described how she did not always get on with her sister; they were close in age, but she explained they 'didn't always see eye to eye.' However, the excerpt below shows that despite not getting along with her sibling and mixed feelings as to whether they would build on their relationship and see each other more, she still valued the time they could share at the camps each year. Katie: I think it is the sibling's choice to carry on having more contact with each other after the camp. That's what I think… Do we get along? Do I want to see her more? Or maybe we do not get along at all and it is better if we stay apart. I think the camp gives us that choice because it lets us know each other more and with that It gets some weight off of your shoulders because when you do not see your sister a lot, or at all even, then once you have seen them it's better, you do not feel guilty and feel like you have at least accomplished something, even if it was bad or good you have actually spent some time with them.

Theme 4

The benefits of time with others who have a shared experience - Findings so far highlight how the camps had achieved what they were aiming to do; the data show they provided a safe supportive space for siblings to come together, have fun and build their bonds. However, data also revealed that camps provided another positive experience that the young people also valued and that was the ability to meet with others who had the same experience. INT: You know you said before you do not necessarily talk about your siblings to people at school, what are you like with people here? Would you be comfortable with the other young people here knowing about that sort of stuff? Jude: Yeah, because they know like what it's like to not live with their siblings, cos they do not live with all their siblings, so that they like understand what you are going through … So that way you can trust everyone. Other participants felt that

	they could trust others who attended the camps, which, in turn, led to close friendships. The excerpt below from Katie's interview demonstrates how this served as form of social capital for her. INT: Do you talk to your friends at school about your siblings? Do they know you do not live with them? Katie: Yeah, most do. My best friends know that I live with my brother right now, they know that my sister lives away and stuff like that, but they do not know the in's and out's because I just, I am not hiding anything but just … They do not need to know sort of thing. INT: So, when you come to like the siblings camp is that any different, do you ever talk about it in more detail with them? Katie: Yeah, 'cos, do you know Sal and Karen?, well in our room in at the last camp we just all like explained our situations … we are in similar situations, so it's more easy to express it with them … their situation is their mum was a bit of a alcohol addict at one point … and their dad, I think he was abusive or something, towards their Mum, that's what I think, but I'm not quite sure, I forgot. INT: And you know when you talked about it with them was there any staff there? Katie: No, just us … we just had a chat., it was kind of good just to like know why you are here, to talk, yeah it was good. INT: Did that sort of affect the relationship you have with them afterwards? Katie: Made it stronger. 'cos if you can tell someone that, you can really trust them. I am really close with Sal INT: And do you stay in touch with Sal outside the camp? (Katie nods) How do you do that? Katie: Yea, social media, because they live up in another town, so obviously I cannot just go and meet up with them, I wish I could but I just text them and Instagram … Yeah and then hopefully see them at the next camp.

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 *(no discussion regarding why particular participants were selected for study "The participants in the study were all active, and regular attendees at the camps and many had attended a number over the years. As a result, the sample could be understood as being positively skewed, and this might account for the overwhelmingly positive responses about the camps across the sample.")*
Data collection	Was the data collected in a way that addressed the research issue?	Yes *(however, 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
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?	Can't tell *(no validation appears to have been performed)*
Research value	How valuable is the research?	The research has some value
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 and CERQual tables

Quantitative evidence

Parent Management Training Oregon (PMTO) vs Care as Usual (CAU) qqq

No. of studies	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 problem behaviour score, postintervention: assessed using the Social Skills Improvement System (SSIS)								
1 (Akin 2015)	Parallel RCT	121	**MD -9.40 (-15.00 to -3.80)**	Very serious[1]	N/A	Serious[2]	Serious[4]	Very low
Caregiver-reported social skills score, postintervention: assessed using the SSIS								
1 (Akin 2015)	Parallel RCT	121	**MD 15.10 (7.34 to 22.86)**	Very serious[1]	N/A	Serious[2]	Serious[5]	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[6]	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)								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Akin 2018/2019)	Parallel RCT	918	**MD -19.01 (-29.05 to -8.97)**	Very serious[6]	N/A	Serious[2]	Not Serious (but less than MID)	Very low
Caregiver-reported problem behaviour score at 6-months follow up: assessed using the Social Skills Improvement System (SSIS)								
1 (Akin 2018/2019)	Parallel RCT	918	**MD -2.00 (-3.88 to -0.12)**	Very serious[6]	N/A	Serious[2]	Not Serious (but less than MID)	Very low
Caregiver-reported problem behaviour score at 12-months follow up: assessed using the Social Skills Improvement System (SSIS)								
1 (Akin 2018/2019)	Parallel RCT	918	**MD -3.48 (-5.18 to -1.78)**	Very serious[6]	N/A	Serious[2]	Not Serious (but less than MID)	Very low
Caregiver-reported social skills score, at 6-months: assessed using the SSIS								
1 (Akin 2018/2019)	Parallel RCT	918	**MD 3.80 (0.94 to 6.66)**	Very serious[6]	N/A	Serious[2]	Not Serious (but less than MID)	Very low
Caregiver-reported social skills score, at 12-months: assessed using the SSIS								
1 (Akin 2018/2019)	Parallel RCT	918	**MD 5.25 (2.31 to 8.19)**	Very serious[6]	N/A	Serious[2]	Not Serious (but less than MID)	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Foster carer-reported child behaviour score at post-intervention: assessed using the Child Behaviour Checklist (CBCL)								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD -2.37 (-7.30 to 2.56)	Very serious[7]	N/A	Serious[8]	Serious[9]	Very low
Foster carer-reported child behaviour score at 4-month follow up: assessed using the Child Behaviour Checklist (CBCL)								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD -0.89 (-5.94 to 4.16)	Very serious[7]	N/A	Serious[8]	Serious[10]	Very low
Foster carer-reported externalising problems score at post-intervention: assessed using the Child Behaviour Checklist (CBCL)								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD -2.65 (-7.54 to 2.24)	Very serious[7]	N/A	Serious[8]	Serious[11]	Very low
Foster carer-reported externalising problems score at 4-month follow up: assessed using the Child Behaviour Checklist (CBCL)								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD -1.54 (-6.74 to 3.66)	Very serious[7]	N/A	Serious[8]	Serious[12]	Very low
Foster carer-reported internalising problems score at post-intervention: assessed using the Child Behaviour Checklist (CBCL)								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD 1.43 (-3.72 to 6.58)	Very serious[7]	N/A	Serious[8]	Serious[13]	Very low
Foster carer-reported internalising problems score at 4-month follow up: assessed using the Child Behaviour Checklist (CBCL)								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Maaskant 2017/2016)	Parallel RCT	88	MD 2.69 (-2.72 to 8.10)	Very serious[7]	N/A	Serious[8]	Serious[14]	Very low
Teacher-reported child behaviour total problems score at postintervention: assessed using the Teacher Report Form								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD -3.96 (-8.54 to 0.62)	Very serious[7]	N/A	Serious[8]	Serious[15]	Very low
Teacher-reported child behaviour total problems score at 4-months follow up: assessed using the Teacher Report Form								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD 0.81 (-3.54 to 5.16)	Very serious[7]	N/A	Serious[8]	Serious[16]	Very low
Teacher-reported externalising problems score at postintervention: assessed using the Teacher Report Form								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD -3.73 (-14.09 to 6.63)	Very serious[7]	N/A	Serious[8]	Serious[17]	Very low
Teacher-reported externalising problems score at 4-months follow up: assessed using the Teacher Report Form								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD 0.57 (-10.15 to 11.29)	Very serious[7]	N/A	Serious[8]	Serious[18]	Very low
Teacher-reported internalising problems score at postintervention: assessed using the Teacher Report Form								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD -0.37 (-5.34 to 4.60)	Very serious[7]	N/A	Serious[8]	Serious[19]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Teacher-reported internalising problems score at 4-months follow up: assessed using the Teacher Report Form								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD 2.75 (-2.06 to 7.56)	Very serious[7]	N/A	Serious[8]	Serious[20]	Very low
Parental stress total scale score at postintervention: assessed using the parenting stress index (PSI)								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD -16.32 (-35.40 to 2.76)	Very serious[7]	N/A	Serious[8]	Serious[21]	Very low
Parental stress total scale score at 4-months follow up: assessed using the parenting stress index (PSI)								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD -5.70 (-26.59 to 15.19)	Very serious[7]	N/A	Serious[8]	Serious[22]	Very low
Parental stress parent domain score at postintervention: assessed using the parenting stress index (PSI)								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD -8.72 (-18.51 to 1.07)	Very serious[7]	N/A	Serious[8]	Serious[23]	Very low
Parental stress parent domain score at 4-months follow up: assessed using the parenting stress index (PSI)								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD -3.12 (-14.50 to 8.26)	Very serious[7]	N/A	Serious[8]	Serious[24]	Very low
Parental stress child domain score at postintervention: assessed using the parenting stress index (PSI)								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Maaskant 2017/2016)	Parallel RCT	88	MD -4.71 (-15.87 to 6.45)	Very serious[7]	N/A	Serious[8]	Serious[25]	Very low
Parental stress child domain score at 4-months follow up: assessed using the parenting stress index (PSI)								
1 (Maaskant 2017/2016)	Parallel RCT	88	MD -2.51 (-13.52 to 8.50)	Very serious[7]	N/A	Serious[8]	Serious[26]	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 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 = 26.7).
4. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 8.3).
5. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 10.8).
6. 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.
7. Downgrade two levels due to very serious risk of bias. High risk of bias due to deviations from the intended interventions, missing data, and measurement of the outcome. In the intervention arm, 5 participants dropped out because they wished for 'other kind of help'. There was also 'no need for help' in 7 instances. These reasons were not evident in the control arm. Also, the number of participants dropping out in the intervention arm was greater. The number of participants who dropped out in the intervention arm is relatively large (approximately 1/3). Foster parents from the control group were free to ask for more intensive or specialised support, including every available form of treatment or intervention except PMTO. It's not clear that participants in the intervention arm had this too. Investigators who collected data were not blinded.
8. Downgrade one level for serious indirectness since study was based in Netherlands.
9. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 4.6).
10. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 4.7).

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
11. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 4.8). 12. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 5.5). 13. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 5.5). 14. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 5.3). 15. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 4.7). 16. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 4.6). 17. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 9.8). 18. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 10.8). 19. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 5.1). 20. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 4.8). 21. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 20.4). 22. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 22.1). 23. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 11.3). 24. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 12.6). 25. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 11.3). 26. Downgrade one level for serious imprecision since estimate of effect crossed 1 line of MID (defined as 0.5*SD in the control group = 11.3).								

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
Experience of a locked setting over 1 year follow up: data excerpted from social case record								
1 (Bergstrom 2016)	Parallel RCT	46	**OR 0.07 (0.01 to 0.60)**	Very Serious[1]	N/A	Very Serious[2]	Not Serious	Very low
Experience of a locked setting over 3 years follow up: data excerpted from social case record								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
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
Criminal activity over 1 year follow up: data excerpted from social care record (confirmed reports from the police or convictions reported in the case record)								
1 (Bergstrom 2016)	Parallel RCT	46	OR 0.19 (0.02 to 1.77)	Very Serious[1]	N/A	Very Serious[2]	Very Serious[3]	Very low
Criminal activity over 3 year follow up: data excerpted from social care record (confirmed reports from the police or convictions reported in the case record)								
1 (Bergstrom 2016)	Parallel RCT	46	OR 0.27 (0.06 to 1.17)	Very Serious[1]	N/A	Very Serious[2]	Serious[4]	Very low
Violent crime over 1 year follow up: crime towards a person (e.g., assault, rape or robbery) from confirmed police reports or convictions								
1 (Bergstrom 2016)	Parallel RCT	46	OR 0.07 (0.00 to 1.31)	Very Serious[1]	N/A	Very Serious[2]	Very Serious[3]	Very low
Violent crime over 3 year follow up: crime towards a person (e.g., assault, rape or robbery) from confirmed police reports or convictions								
1 (Bergstrom 2016)	Parallel RCT	46	**OR 0.04 (0.00 to 0.67)**	Very Serious[1]	N/A	Very Serious[2]	Not Serious	Very low
Number offending at 12 month follow up: 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.								
1 (Green 2014)	Parallel RCT	34	OR 2.23 (0.82 to 6.07)	Very Serious[5]	N/A	Serious[4]	Not Serious	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Self-reported internalising behaviour score at 24 months postbaseline: assessed using the youth self-report								
1 (Westermark 2011)	Parallel RCT	35	MD -4.20 (-10.36 to 1.96)	Serious[6]	N/A	Very Serious[7]	Serious[8]	Very low
Self-reported externalising behaviour score at 24 months postbaseline: assessed using the youth self-report								
1 (Westermark 2011)	Parallel RCT	35	MD -2.50 (-7.69 to 2.69)	Serious[6]	N/A	Very Serious[7]	Serious[9]	Very low
Self-reported total problem behaviour score at 24 months postbaseline: assessed using the youth self-report								
1 (Westermark 2011)	Parallel RCT	35	MD -9.30 (-25.13 to 6.53)	Serious[6]	N/A	Very Serious[7]	Serious[10]	Very low
Carer-reported internalising behaviour score at 24 months postbaseline: assessed using the CBCL								
1 (Westermark 2011)	Parallel RCT	35	MD -4.90 (-11.44 to 1.64)	Serious[6]	N/A	Very Serious[7]	Serious[11]	Very low
Carer-reported externalising behaviour score at 24 months postbaseline: assessed using the CBCL								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Westermark 2011)	Parallel RCT	35	MD -2.20 (-10.14 to 5.74)	Serious[6]	N/A	Very Serious[7]	Serious[12]	Very low
Carer-reported total problem behaviour score at 24 months postbaseline: assessed using the CBCL								
1 (Westermark 2011)	Parallel RCT	35	MD -16.50 (-36.29 to 3.29)	Serious[6]	N/A	Very Serious[7]	Serious[13]	Very low
Minimum 30% reduction in self-reported internalising behaviour score at 24 months postbaseline: assessed using the youth self-report								
1 (Westermark 2011)	Parallel RCT	35	OR 1.83 (0.47 to 7.13)	Serious[6]	N/A	Very Serious[7]	Very Serious[3]	Very low
Minimum 30% reduction in self-reported externalising behaviour score at 24 months postbaseline: assessed using the youth self-report								
1 (Westermark 2011)	Parallel RCT	35	**OR 4.67 (1.11 to 19.65)**	Serious[6]	N/A	Very Serious[7]	Serious[4]	Very low
Self-reported total problem behaviour score at 24 months postbaseline: assessed using the youth self-report								
1 (Westermark 2011)	Parallel RCT	35	**OR 6.00 (1.37 to 26.24)**	Serious[6]	N/A	Very Serious[7]	Not Serious	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Carer-reported internalising behaviour score at 24 months postbaseline: assessed using the CBCL								
1 (Westermark 2011)	Parallel RCT	35	**OR 6.00 (1.37 to 26.24)**	Serious[6]	N/A	Very Serious[7]	Not Serious	Very low
Carer-reported externalising behaviour score at 24 months postbaseline: assessed using the CBCL								
1 (Westermark 2011)	Parallel RCT	35	**OR 6.00 (1.37 to 26.24)**	Serious[6]	N/A	Very Serious[7]	Not Serious	Very low
Carer-reported total problem behaviour score at 24 months postbaseline: assessed using the CBCL								
1 (Westermark 2011)	Parallel RCT	35	**OR 6.00 (1.33 to 27.05)**	Serious[6]	N/A	Very Serious[7]	Not Serious	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.
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 one line of MID (defined as 0.8 and 1.25 for odds ratios)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

5. Downgrade two 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.
6. Downgrade one level for serious risk of bias: 11% attrition but missing data balanced between groups. no blinding procedures described, and outcomes were self-report, however validated measures were used. Unclear process of randomisation and allocation concealment (but no differences observed at baseline. 11% attrition rate over follow up, but balanced between comparison groups; no blinding procedures followed and outcomes were self-reported; results were selected at one point of follow up.
7. Downgrade one level for serious indirectness since study was based in Sweden. Downgrade one level since participants were referred to out of home care serious behavioural problems. However, participants (treatment/control group) were in out of home care during the course of the study.
8. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of MID (defined as 0.5*SD of control group = 5.2)
9. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of MID (defined as 0.5*SD of control group = 4.2)
10. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of MID (defined as 0.5*SD of control group = 13.3)
11. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of MID (defined as 0.5*SD of control group = 5.2)
12. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of MID (defined as 0.5*SD of control group = 6.1)
13. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of MID (defined as 0.5*SD of control group = 16.2)

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
Mean criminal referrals index score at 1 year follow up: total number of days a youth had at least one criminal referral between the time of placement and 1 year following exit from placement assessed using electronic referral records collected from the juvenile courts								
1 (Eddy 2000/2004)	Parallel RCT	79	**MD -1.60 (-2.77 to -0.43)**	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
Positive adult-youth relationship score at placement midpoint: derived from a set of four questions relating to how much the youth and caretake "like" each other								
1 (Eddy 2000/2004)	Parallel RCT	79	**MD 0.49 (0.19 to 0.79)**	Very Serious[1]	N/A	Serious[2]	Serious[4]	Very low
Supervision score at placement midpoint: assessed using a set of questions relating to amount of time spent together and differences in knowledge of behavioural problems								
1 (Eddy 2000/2004)	Parallel RCT	79	**MD 0.55 (0.34 to 0.76)**	Very Serious[1]	N/A	Serious[2]	Very Serious[5]	Very low
Deviant peers score at 1 year follow up: assessed using a set of questions regarding to association and influence by deviant peers.								
1 (Eddy 2000/2004)	Parallel RCT	79	**MD 1.39 (-1.64 to -1.14)**	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Mean self-reported delinquency score at 1 year follow up: assessed using the Elliot Behaviour Checklist protocol								
1 (Eddy 2000/2004)	Parallel RCT	79	**MD -6.02 (-10.18 to -1.86)**	Very Serious[1]	N/A	Serious[2]	Serious[6]	Very low
Number with no criminal referrals for violent offenses over two years follow up: official records of violent offenses and self-reported violent behaviour								
1 (Eddy 2000/2004)	Parallel RCT	79	OR 2.23 (0.82 to 6.07)	Very Serious[1]	N/A	Serious[2]	Serious[7]	Very low
Number with one or more referrals for violent offenses over two years follow up: official records of violent offenses and self-reported violent behaviour								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Eddy 2000/2004)	Parallel RCT	79	OR 0.45 (0.16 to 1.22)	Very Serious[1]	N/A	Serious[2]	Serious[7]	Very low
Association between being in the intervention group and number of official violent referrals over 2 years follow up: assessed using electronic referral records collected from the juvenile courts								
1 (Eddy 2000/2004)	Parallel RCT	79	**beta -0.81, p-value: <0.05[6]**	Very Serious[1]	N/A	Serious[2]	NE[8]	Very low
Association between being in the intervention group and self-reported violence over 2 years follow up: assessed by summing the number of times the participants admitted to perpetrating a list of violent acts								
1 (Eddy 2000/2004)	Parallel RCT	79	**beta -1.11, p-value <0.001[6]**	Very Serious[1]	N/A	Serious[2]	NE[8]	Very low
Delinquency construct score at 12 months follow up: computed from three indicators assessing behaviour during the prior 12 months: number of criminal referrals, number of days in locked settings, and self-reported delinquency								
1 (Leve 2007/2005a /Chamberlain 2007)	Parallel RCT	81	**MD -0.08 (-0.16 to 0.00)**	Very Serious[9]	N/A	Serious[2]	Serious[10]	Very Low
Delinquency construct score at 24 months follow up: computed from three indicators assessing behaviour during the prior 12 months: number of criminal referrals, number of days in locked settings, and self-reported delinquency								
1 (Leve 2007/2005a /Chamberlain 2007)	Parallel RCT	81	**MD -0.13 (-0.21 to -0.05)**	Very Serious[5]	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
Association between being in the intervention group and rate of decrease in delinquency construct score over the course of the study: computed from three indicators assessing behaviour during the prior 12 months: number of criminal referrals, number of days in locked settings, and self-reported delinquency								
1 (Leve 2007/2005a /Chamberlain 2007)	Parallel RCT	81	**beta coefficient -0.42, p <0.01[12]**	Very Serious[5]	N/A	Serious[2]	NE[8]	Very Low
Log number of criminal referrals at 12 months follow up: collected from state police records and circuit court data								
1 (Leve 2007/2005a /Chamberlain 2007)	Parallel RCT	81	**MD -0.10 (-0.20 to -0.00)**	Very Serious[5]	N/A	Serious[2]	Serious[13]	Very low
Log number of criminal referrals at 24 months follow up: collected from state police records and circuit court data								
1 (Leve 2007/2005a /Chamberlain 2007)	Parallel RCT	81	MD -0.09 (-0.19 to 0.01)	Very Serious[5]	N/A	Serious[2]	Serious[14]	Very low
Log number of days in locked settings at 12 months follow up: self-report of total days spent in detention, correctional facilities, jail, or prison								
1 (Leve 2007/2005a /Chamberlain 2007)	Parallel RCT	81	**MD -0.20 (-0.36 to -0.04)**	Very Serious[5]	N/A	Serious[2]	Serious[15]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Log number of days in locked settings at 24 months follow up: self-report of total days spent in detention, correctional facilities, jail, or prison								
1 (Leve 2007/2005a /Chamberlain 2007)	Parallel RCT	81	**MD -0.28 (-0.43 to -0.13)**	Very Serious[5]	N/A	Serious[2]	Serious[16]	Very low
Log delinquency score at 12 months follow up: Self-reported Elliott General Delinquency Score								
1 (Leve 2007/2005a /Chamberlain 2007)	Parallel RCT	81	MD 0.03 (-0.05 to 0.11)	Very Serious[5]	N/A	Serious[2]	Serious[17]	Very low
Log delinquency score at 24 months follow up: Self-reported Elliott General Delinquency Score								
1 (Leve 2007/2005a /Chamberlain 2007)	Parallel RCT	81	MD -0.01 (-0.08 to 0.06)	Very Serious[5]	N/A	Serious[2]	Serious[18]	Very low
Caregiver-reported delinquency at 12 months follow up: assessed using the CBCL								
1 (Leve 2007/2005a /Chamberlain 2007)	Parallel RCT	81	**MD -5.28 (-9.69 to -0.87)**	Very Serious[5]	N/A	Serious[2]	Serious[19]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Caregiver and youth-reported Delinquent Peer Association at the 12-month follow up: assessed using Describing Friends Questionnaire								
1 (Leve 2005b)	Parallel RCT	153	**MD -0.49 (-0.77 to -0.21)**	Very Serious[20]	N/A	Serious[2]	Serious[21]	Very low
Caregiver and youth-reported Delinquent Peer Association at the 12-month follow up: assessed using CBCL								
1 (Leve 2005b)	Parallel RCT	153	MD -0.17 (-0.55 to 0.21)	Very Serious[20]	N/A	Serious[2]	Serious[22]	Very low
Caregiver and youth-reported Delinquent Peer Association at the 12 month follow up: assessed using Over-Covert Aggression Questionnaire								
1 (Leve 2005b)	Parallel RCT	153	**MD -0.52 (-0.97 to -0.07)**	Very Serious[20]	N/A	Serious[2]	Serious[23]	Very low
Association between intervention and delinquent peer association at 12 months follow up: construct delinquent peer association score								
1 (Leve 2005b)	Parallel RCT	153	**beta -0.22 p-value <0.01[24]**	Very Serious[20]	N/A	Serious[2]	NE[8]	Very low
Association between being in the intervention group and self-reported general delinquency at 24 months follow up: assessed using the Elliott General Delinquency Scale								
1 (Van Ryzin 2012)	Parallel RCT	166	Beta -0.12 (-0.43 to 0.19)	Not Serious	N/A	Very Serious[25]	NE[8]	Low
Association between being in the intervention group and number of criminal referrals and number of days in locked settings over 24 months follow up: assessed using a construct of self-report of days in locked settings and state police records/court data								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Van Ryzin 2012)	Parallel RCT	166	**Beta -0.37 (-0.68 to -0.06)**	Not Serious	N/A	Very Serious[25]	NE[8]	Low
Association between being in the intervention group and self-reported delinquent peers affiliation at 12 months follow up: assessed using the Describing Friends Questionnaire								
1 (Van Ryzin 2012)	Parallel RCT	166	**Beta -0.34 (-0.61 to -0.07)**	Not Serious	N/A	Very Serious[25]	NE[8]	Low

1. Downgrade two 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.
2. Downgrade one 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 = 1.37)
4. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.35)
5. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group = 0.31)
6. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 5.5)
7. Downgrade 1 level for serious imprecision since confidence intervals crossed one line of MID (defined as 0.8 and 1.25 for odds ratios)
8. Downgrade 2 levels as imprecision was not estimable
9. Downgrade two levels for very serious risk of bias. Unclear how randomisation was performed or if allocation concealment. Unclear if all participants assigned to their groups received their interventions as allocated. Intention to treat analysis used. Over 10% lost to follow up. Unclear how much additional missing outcome data or if this differed between comparison groups. Quite crude measures used for homework completion and school attendance. Unclear if outcome assessors were aware of intervention group. Possibility that reporting of outcomes was affected by knowledge of intervention group. Insufficient information to convince that trial was conducted according to a prespecified plan that was finalised before unblinded outcome data was available.
10. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.10)
11. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.11)
12. Adjusted for age at placement; age at first arrest; prior arrests; and prior delinquency at baseline
13. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.12)
14. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.13)
15. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.19)
16. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.20)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

17. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.09)
18. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.08)
19. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.05)
20. Downgrade two levels for very serious risk of bias: No blinding. The results section says that some data was missing but does not say how much data was missing. Some of the outcomes involve delinquent children reporting on the behaviour of delinquent peers. Caregivers might not admit that children under their care are “hanging out with kids who get into trouble”. The data could be quite inaccurate.
21. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.45)
22. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.38)
23. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.78)
24. Adjusted for age at baseline, gender, delinquent peer association score at baseline
25. 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

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
Secure behaviour score (mean %) at 3 months follow up: assessed using the Parent Attachment Diary								
1 (Fisher 2007/2011)	Parallel RCT	117	MD 0.01 (-0.11 to 0.13)	Not Serious	N/A	Serious[1]	Not Serious	Moderate
Secure behaviour score (mean %) at 12 months follow up: assessed using the Parent Attachment Diary								
1 (Fisher 2007/2011)	Parallel RCT	117	MD 0.05 (-0.07 to 0.17)	Not Serious	N/A	Serious[1]	Serious[2]	Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Avoidant behaviour score (mean %) at 3 months follow up: assessed using the Parent Attachment Diary								
1 (Fisher 2007/2011)	Parallel RCT	117	MD -0.01 (-0.10 to 0.08)	Not Serious	N/A	Serious[1]	Not Serious	Moderate
Avoidant behaviour score (mean %) at 12 months follow up: assessed using the Parent Attachment Diary								
1 (Fisher 2007/2011)	Parallel RCT	117	**MD -0.10 (-0.19 to -0.01)**	Not Serious	N/A	Serious[1]	Serious[3]	Low
Resistant behaviour score (mean %) at 3 months follow up: assessed using the Parent Attachment Diary								
1 (Fisher 2007/2011)	Parallel RCT	117	MD 0.02 (-0.03 to 0.07)	Not Serious	N/A	Serious[1]	Serious[4]	Low
Resistant behaviour score (mean %) at 12 months follow up: assessed using the Parent Attachment Diary								
1 (Fisher 2007/2011)	Parallel RCT	117	MD 0.00 (-0.04 to 0.04)	Not Serious	N/A	Serious[1]	Not Serious	Moderate
Association between MTFC and change in secure behaviour score over 12 months follow up: assessed using the Parent Attachment Diary								
1 (Fisher 2007/2011)	Parallel RCT	117	**Beta 0.18 (0.02 to 0.34)**	Not Serious	N/A	Serious[1]	NE[5]	Very Low
Association between MTFC and change in avoidant behaviour score over 12 months follow up: assessed using the Parent Attachment Diary								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Fisher 2007/2011)	Parallel RCT	117	**Beta -0.13 (-0.25 to -0.01)**	Not Serious	N/A	Serious[1]	NE[5]	Very Low
Association between MTFC and change in resistant behaviour score over 12 months follow up: **assessed using the Parent Attachment Diary**								
1 (Fisher 2007/2011)	Parallel RCT	117	Beta 0.01 (-0.07 to 0.09)	Not Serious	N/A	Serious[1]	NE[5]	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 (defined as 0.5*SD in the control group = 0.17)
3. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.15)
4. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.07)
5. Downgrade 2 levels as imprecision was not estimable

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
Foster parent-reported positive child relationship score by 12 months: assessed using the Child Relationship Development Inventory								
1 (Job 2020)	Parallel RCT	87	Beta coefficient -2.82, SE 3.20, p=0.382	Not Serious	N/A	Serious[1]	NE[2]	Very Low
Foster parent-reported Negative Child Relationship Investment Behaviour by 12 months: assessed using the Child Relationship Checklist								

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 -4.38, SE 3.92, p=0.268	Not Serious	N/A	Serious[1]	NE[2]	Very Low
Externalising child behaviour score at 12 months: measured using the Eyberg Child Behaviour Inventory								
1 (Job 2020)	Parallel RCT	87	Beta coefficient -8.68, SE 8.80, p=0.328	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 2 levels as imprecision was not estimable

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
Association between being in the intervention group and reduced behavioural problems score by 12 months: assessed using the PDR								
1 (Farmer 2010)	Parallel RCT	247	**beta -0.23 (-0.38 to -0.09)[1]**	Serious[2]	N/A	Serious[3]	NE[4]	Very Low

1. **Adjusted for baseline PDR score and wave at follow up**
2. Downgrade 1 level for serious risk of bias: no blinding and the outcomes are somewhat subjective.
3. Downgrade 1 level for serious indirectness since study was based in USA
4. Downgrade 2 levels as imprecision was not estimable

Treatment Foster Care (together facing the challenge) vs Treatment Foster Care

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Caregiver-reported quality of the relationship between youth and their caregivers at 6/12 months follow up: assessed using the Reactive Attachment Disorder Scale								
1 (Murray 2018)	Parallel RCT	88	MD 0.10 (-0.11 to 0.31)	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low

1. Downgrade 2 levels for very serious risk of bias: Method of randomization not provided. No baseline characteristics provided to assess the success of randomization. No blinding and many of the outcomes are fairly 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 (half the standard deviation of the control arm)

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
Association between ABC and change in maternal sensitivity score from pre-postintervention: video-recorded 10-minute interaction assessed by coders on a 5-point likert scale.								
1 (Bick 2013)	Parallel RCT	96	**beta coefficient 0.09 (0.01 to 0.17)[1]**	Very Serious[2]	NA	Serious[3]	NE[4]	Very low
Avoidant behaviour score, mean, postintervention: assessed using the Parent Attachment Diary								
1 (Dozier 2009)	Parallel RCT	46	MD -0.23 (-0.42 to -0.04)	Very Serious[5]	N/A	Serious[3]	Serious[6]	Very low
Secure behaviour score, mean, postintervention: assessed using the Parent Attachment Diary								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Dozier 2009)	Parallel RCT	46	MD 0.12 (-0.13 to 0.37)	Very Serious[5]	N/A	Serious[3]	Serious[7]	Very low
Problem behaviour score at 1 month postintervention, mean score: assessed using the Parent daily report								
1 (Dozier 2006)	Parallel RCT	60	MD -0.02 [-0.10, 0.06]	Very Serious[8]	NA	Serious[3]	Serious[9]	Very Low

1. Adjusting for foster infants' age, placement duration, and foster mothers' educational level
2. Downgrade 2 levels for risk of bias. no information about randomisation process or allocation concealment, however "no significant differences were observed between intervention groups for foster infants age, duration of placement, previous number of placements, or foster age". Unclear approach to loss to follow up; unclear how many lost to follow up (probable per-protocol approach). Unclear how much missing data overall, and how much this varied between study groups. Measurements were blinded and had "excellent inter-rater reliability". unclear approach to missing data/loss to follow up. Unclear that approach used for analysis was adhoc. No protocol cited.
3. Downgrade one level for serious indirectness since study was based in USA.
4. Downgrade 2 levels as imprecision was not estimable
5. Downgrade 2 levels for very serious risk of bias: Method of randomization not given. No baseline characteristics provided in order to judge how successful randomization was. Investigators say there was no significant difference between arms though. Participants were 'blinded'. However, they were likely aware of which arm they were in. Foster parents recorded the outcomes. This could have resulted in bias given how difficult true blinding is likely to be.
6. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group= 0.21)
7. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.27)
8. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group = 0.07)
9. 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. Study provided poor information regarding how the trial was performed. No protocol was cited.

Attachment and Biobehavioural Catch-up (ABC) vs Wait List Control

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Caregiver-reported internalising behaviour score at postintervention: assessed using the CBCL								
1 (Sprang 2009)	Parallel RCT	53	**MD -18.97 (-25.27 to -12.67)**	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Change in caregiver-reported internalising behaviour score from baseline: assessed using the CBCL								
1 (Sprang 2009)	Parallel RCT	53	**MD -14.89, p value=0.01**	Very Serious[1]	N/A	Serious[2]	NE[3]	Very low
Caregiver-reported externalising behaviour score at postintervention: assessed using the CBCL								
1 (Sprang 2009)	Parallel RCT	53	**MD -19.95 (-25.84 to -14.06)**	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Change in caregiver-reported externalising behaviour score from baseline: assessed using the CBCL								
1 (Sprang 2009)	Parallel RCT	53	**MD -13.85, p value=0.05**	Very Serious[1]	N/A	Serious[2]	NE[3]	Very low
Parenting stress in the caregiver-child relationship mean score at postintervention: assessed using the PSI								
1 (Sprang 2009)	Parallel RCT	53	**MD -89.58 (-103.30 to -75.86)**	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
Change in parenting stress in the caregiver-child relationship mean score from baseline: assessed using the PSI								
1 (Sprang 2009)	Parallel RCT	53	**MD -81.21, p-value = 0.01**	Very Serious[1]	N/A	Serious[2]	NE[3]	Very low

1. Downgrade 2 levels for very serious risk of bias: Not true randomization: Every 4th case was a control. Therefore, it might have been possible to predict who would be a control etc. No blinding and outcomes were fairly subjective.
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade 2 levels as imprecision was not estimable

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
Child behaviour problems mean score at three months follow-up: Carer-Defined Problems Scale								
1 (Briskman 2012)	Parallel RCT	108	**MD -15.00 (-25.74 to -4.26)**	Serious[1]	NA	Serious[2]	Serious[3]	Very low
Change in foster child's attachment relationship with foster carer mean score three months post-randomisation: assessed by The Quality of Attachment Relationships Questionnaire								
1 (Briskman 2012)	Parallel RCT	108	**MD 3, p-value =0.04**	Serious[1]	NA	Serious[2]	NE[4]	Low
Conduct problems score at 3 months postbaseline: assessed using the Strengths and Difficulties Questionnaire (SDQ)								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Briskman 2012)	Parallel RCT	108	MD -0.50 (-1.61 to 0.61)	Serious[1]	NA	Serious[2]	Serious[5]	Very low
Peer-relationships score at 3 months postbaseline: assessed using the Strengths and Difficulties Questionnaire (SDQ)								
1 (Briskman 2012)	Parallel RCT	108	MD -0.50 (-1.61 to 0.61)	Serious[1]	NA	Serious[2]	Serious[6]	Very low
Pro-social score at 3 months postbaseline: assessed using the Strengths and Difficulties Questionnaire (SDQ)								
1 (Briskman 2012)	Parallel RCT	108	MD -0.20 (-1.19 to 0.79)	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= 13.4)
4. Downgrade 2 levels as imprecision was not estimable
5. Downgrade one level for serious imprecision since confidence intervals crossed one line of MID (defined as 0.5*SD in the control group= 1.3)
6. Downgrade one level for serious imprecision since confidence intervals crossed one line of MID (defined as 0.5*SD in the control group= 1.1)

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 conduct problems score assessed using Strength and Difficulties Questionnaire at 3 months								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Moody 2020)	Parallel RCT	312	MD -0.20 [-0.69, 0.29]	Serious[1]	N/A	Not Serious	Not Serious	Moderate
Carer-reported conduct problems score assessed using Strength and Difficulties Questionnaire at 12 months								
1 (Moody 2020)	Parallel RCT	312	MD 0.40 [-0.12, 0.92]	Serious[1]	N/A	Not Serious	Not Serious	Moderate
Carer-reported hyperactivity score assessed using Strength and Difficulties Questionnaire at 3 months								
1 (Moody 2020)	Parallel RCT	312	**MD -0.60 [-1.13, -0.07]**	Serious[1]	N/A	Not Serious	Not Serious	Moderate
Carer-reported hyperactivity score assessed using Strength and Difficulties Questionnaire at 12 months								
1 (Moody 2020)	Parallel RCT	312	MD -0.20 [-0.78, 0.38]	Serious[1]	N/A	Not Serious	Not Serious	Moderate
Carer-reported peer problems score assessed using Strength and Difficulties Questionnaire at 3 months								
1 (Moody 2020)	Parallel RCT	312	**MD -0.70 [-1.20, -0.20]**	Serious[1]	N/A	Not Serious	Not Serious	Moderate
Carer-reported peer problems score assessed using Strength and Difficulties Questionnaire at 12 months								
1 (Moody 2020)	Parallel RCT	312	MD -0.40 [-0.91, 0.11]	Serious[1]	N/A	Not Serious	Not Serious	Moderate

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Carer-reported prosocial score assessed using Strength and Difficulties Questionnaire at 3 months								
1 (Moody 2020)	Parallel RCT	312	MD 0.30 [-0.18, 0.78]	Serious[1]	N/A	Not Serious	Not Serious	Moderate
Carer-reported prosocial score assessed using Strength and Difficulties Questionnaire at 12 months								
1 (Moody 2020)	Parallel RCT	312	MD 0.10 [-0.35, 0.55]	Serious[1]	N/A	Not Serious	Not Serious	Moderate
Carer-reported quality of attachment assessed using the Quality of Attachment Questionnaire at 3 months								
1 (Moody 2020)	Parallel RCT	312	MD 1.50 [-0.82, 3.82]	Serious[1]	N/A	Not Serious	Not Serious	Moderate
Carer-reported quality of attachment assessed using the Quality of Attachment Questionnaire at 12 months								
1 (Moody 2020)	Parallel RCT	312	MD 1.40 [-0.72, 3.52]	Serious[1]	N/A	Not Serious	Not Serious	Moderate
Carer-reported problem behaviours score (score above 70) assessed using the Carer Defined Problems Score at 12 months								
1 (Moody 2020)	Parallel RCT	312	OR 0.71 [0.33, 1.54]	Serious[1]	N/A	Not Serious	Very Serious[2]	Very Low

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.

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
2. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (0.8 and 1.25 for odds ratios)								

Video-feedback Intervention vs phone call control

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Maternal sensitivity score postintervention: assessed using the Maternal Behaviour Q-Set								
1 (Casonato 2017)	Parallel RCT	13	MD 0.09 (-0.13 to 0.31)	Not Serious	NA	Serious[1]	Very Serious[2]	Very low
1. Downgrade one level for serious indirectness since study was based in Italy. 2. Downgrade two levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group= 0.10)								

Keep Foster parent training vs training as usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Carer-reported mean number of child problem behaviours per day, 5 months postbaseline: assessed using the Parent Daily Report (PDR)								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Price 2008/ Chamberlain 2008a/ Chamberlain 2008b)	Parallel RCT	700	**MD -1.07 (-1.67 to -0.47)**	Very Serious[1]	NA	Serious[2]	Not Serious (but lower than MID)	Very low
Association between the intervention group and carer-reported mean number of child problem behaviours per day, 5 months postbaseline: assessed using the PDR								
1 (Price 2008/ Chamberlain 2008a/ Chamberlain 2008b)	Parallel RCT	700	**beta coefficient -0.14, p-value <0.05[3]**	Very Serious[1]	NA	Serious[2]	NE[4]	Very low

1. Downgrade 2 levels for very serious risk of bias: unclear how randomisation was performed and whether allocation was concealed. Children in the intervention group were more likely to be Spanish-speaking than control group children, but no further differences were found between groups for age, type of care, gender, or ethnicity. Unclear if significant deviations between intervention groups. Of the 700 parents who completed the baseline interview, 81% (n = 564) provided data at termination. Comparisons of missing and non-missing cases on baseline measures showed a significant difference in foster parents' proportion positive reinforcement, t(696) = -2.95, p = .003; cases with missing data at termination were higher on this variable at baseline. There were no significant differences between the intervention group and the control group on attrition and missing data rates. outcomes were self-reported from interviews with a trained interviewer. It was unclear if interviewers were aware of intervention status but a validated questionnaire was followed. Many aspects of the trial protocol and methods are unclear such as: method of randomisation, allocation concealment, drop out, number who successfully completed placements, whether intent to treat analysis was used, and whether assessors of the outcomes were aware of the intervention group.
2. Downgrade one level for serious indirectness since study was based in USA.
3. Adjusted for baseline child behaviour problems score and child age
4. Downgrade 2 levels as imprecision was not estimable

KEEP foster parent training vs CAU

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Caregiver-reported child behaviour problems at postintervention (focal child): measured using the parent daily report (PDR)								
1 (Price 2015/2019)	Parallel RCT	354	MD -0.07 (-0.85 to 0.71)	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Association between being in the intervention group and change in caregiver-reported child behaviour problems at postintervention (focal child): measured using the parent daily report (PDR)								
1 (Price 2015/2019)	Parallel RCT	354	Beta=−0.66, p=0.005	Very Serious[1]	N/A	Serious[2]	NE[3]	Very low
Caregiver-reported child behaviour problems at postintervention (focal sibling): measured using the parent daily report (PDR)								
1 (Price 2015/2019)	Parallel RCT	354	MD -0.20 (-0.95 to 0.55)	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Association between being in the intervention group and change in caregiver-reported child behaviour problems at postintervention (focal sibling): measured using the parent daily report (PDR)								
1 (Price 2015/2019)	Parallel RCT	354	Beta=−0.41, p=0.055	Very Serious[1]	N/A	Serious[2]	NE[3]	Very low
Caregiver-reported parental stress associated with behaviour at postintervention (focal child): measured using the parent daily report (PDR)								
1 (Price 2015/2019)	Parallel RCT	354	MD -0.21 (-1.61 to 1.19)	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Association between being in the intervention group and change in caregiver-reported parental stress associated with behaviour at postintervention (focal child): measured using the parent daily report (PDR)								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Price 2015/2019)	Parallel RCT	354	**Beta=−1.84, p<0.001**	Very Serious[1]	N/A	Serious[2]	NE[3]	Very low
Caregiver-reported parental stress associated with behaviour at postintervention (focal sibling): measured using the parent daily report (PDR)								
1 (Price 2015/2019)	Parallel RCT	354	MD -0.56 (-1.97, 0.85)	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Association between being in the intervention group and change in caregiver-reported parental stress associated with behaviour at postintervention (focal sibling): measured using the parent daily report (PDR)								
1 (Price 2015/2019)	Parallel RCT	354	**beta=−0.98, p<0.001**	Very Serious[1]	N/A	Serious[2]	NE[3]	Very low
Internalising behaviour problems at 4 months: assessed using the Child Behaviour Checklist								
1 (Price 2015/2019)	Parallel RCT	310	MD -1.30 [-3.82, 1.22] **(change in score P=0.031)**	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Change in those in clinical group for Internalising behaviour problems at 4 months: assessed using the Child Behaviour Checklist								
1 (Price 2015/2019)	Parallel RCT	310	OR 1.52, p=0.112	Very Serious[1]	N/A	Serious[2]	NE[3]	Very low
Anxiety/depression subscale at 4 months: 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 (Price 2015/2019)	Parallel RCT	310	MD -1.09 [-2.74, 0.56] **(change in score p=0.008)**	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Change in those in clinical group for anxiety/depression subscale at 4 months: assessed using the Child Behaviour Checklist								
1 (Price 2015/2019)	Parallel RCT	310	OR 2.10, p=0.270	Very Serious[1]	N/A	Serious[2]	NE[3]	Very low
Withdrawn subscale at 4 months: assessed using the Child Behaviour Checklist								
1 (Price 2015/2019)	Parallel RCT	310	MD -1.30 [-3.00, 0.40] (change in score p = 0.105)	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Change in those in clinical group for withdrawn subscale at 4 months: assessed using the Child Behaviour Checklist								
1 (Price 2015/2019)	Parallel RCT	310	OR 2.18, p=0.104	Very Serious[1]	N/A	Serious[2]	NE[3]	Very low
Somatic complaints subscale at 4 months: assessed using the Child Behaviour Checklist								
1 (Price 2015/2019)	Parallel RCT	310	MD 0.46 [-0.82, 1.74] (change in score p=0.233)	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Change in those in clinical group for somatic complaints subscale at 4 months: 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 (Price 2015/2019)	Parallel RCT	310	OR 1.33, p=0.260	Very Serious[1]	N/A	Serious[2]	NE[3]	Very low
Externalising behaviour problems (broadband) at 4 months: assessed using the Child Behaviour Checklist								
1 (Price 2015/2019)	Parallel RCT	310	MD -0.65 [-3.33, 2.03] (change in score p=0.126)	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Change in those in a clinical group for externalising behaviour problems (broadband) at 4 months: assessed using the Child Behaviour Checklist								
1 (Price 2015/2019)	Parallel RCT	310	OR 1.28, p=0.475	Very Serious[1]	N/A	Serious[2]	NE[3]	Very low
Aggression subscale at 4 months: assessed using the Child Behaviour Checklist								
1 (Price 2015/2019)	Parallel RCT	310	MD -0.10 [-1.88, 1.68] (change in score p=0.563)	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Change in those in clinical group for aggression subscale at 4 months: assessed using the Child Behaviour Checklist								
1 (Price 2015/2019)	Parallel RCT	310	OR 1.07, p=0.728	Very Serious[1]	N/A	Serious[2]	NE[3]	Very low
Rule-breaking subscale at 4 months: 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 (Price 2015/2019)	Parallel RCT	310	MD 0.48 [-1.60, 2.56] (change in score p=0.392)	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Change in those in clinical group for rule-breaking subscale at 4 months: assessed using the Child Behaviour Checklist								
1 (Price 2015/2019)	Parallel RCT	310	OR 1.23, p=0.547	Very Serious[1]	N/A	Serious[2]	NE[3]	Very low

1. Downgrade 2 levels for very serious risk of bias: Method of randomization not provided. No baseline characteristics provided to assess the success of randomization. No blinding and many of the outcomes are fairly subjective.
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade 2 levels as imprecision was not estimable

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
Total behavioural problems score postintervention: assessed using the CBCL								
1 (Conn 2018)	Parallel RCT	33	MD 0.60 (-8.46 to 9.66)	Very Serious[1]	NA	Serious[2]	Very Serious[3]	Very low
Change in total behavioural problems score postintervention: assessed using the CBCL								
1 (Conn 2018)	Parallel RCT	33	MD 1.50 (-3.86 to 6.86)	Very Serious[1]	NA	Serious[2]	Very Serious[4]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Externalising problems score postintervention: assessed using the CBCL								
1 (Conn 2018)	Parallel RCT	33	MD -1.20 (-9.67 to 7.27)	Very Serious[1]	NA	Serious[2]	Very Serious[5]	Very low
Change in externalising problems score postintervention: assessed using the CBCL								
1 (Conn 2018)	Parallel RCT	33	MD -0.80 (-6.49 to 4.89)	Very Serious[1]	NA	Serious[2]	Very Serious[6]	Very low
Internalising problems score postintervention: assessed using the CBCL								
1 (Conn 2018)	Parallel RCT	33	MD 0.70 (-7.29 to 8.69)	Very Serious[1]	NA	Serious[2]	Very Serious[7]	Very low
Change in internalising problems score postintervention: assessed using the CBCL								
1 (Conn 2018)	Parallel RCT	33	MD 2.30 (-4.10 to 8.70)	Very Serious[1]	NA	Serious[2]	Very Serious[8]	Very low
Parenting stress score postintervention: assessed using the Parenting Stress Index (PSI)								
1 (Conn 2018)	Parallel RCT	33	MD 1.20 (-9.13 to 11.53)	Very Serious[1]	NA	Serious[2]	Very Serious[9]	Very low
Change in parenting stress score postintervention: assessed using the Parenting Stress Index (PSI)								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Conn 2018)	Parallel RCT	33	MD -2.50 (-14.61 to 9.61)	Very Serious[1]	NA	Serious[2]	Very Serious[10]	Very low
Parent distress score postintervention: assessed using the Parenting Stress Index (PSI)								
1 (Conn 2018)	Parallel RCT	33	MD 1.10 (-2.84 to 5.04)	Very Serious[1]	NA	Serious[2]	Very Serious[11]	Very low
Change in parent distress score postintervention: assessed using the Parenting Stress Index (PSI)								
1 (Conn 2018)	Parallel RCT	33	MD -1.20 (-6.64 to 4.24)	Very Serious[1]	NA	Serious[2]	Very Serious[12]	Very low
Parent-child dysfunctional interaction score postintervention: assessed using the Parenting Stress Index (PSI)								
1 (Conn 2018)	Parallel RCT	33	MD 0.70 (-2.36 to 3.76)	Very Serious[1]	NA	Serious[2]	Serious[13]	Very low
Change in parent-child dysfunctional interaction score postintervention: assessed using the Parenting Stress Index (PSI)								
1 (Conn 2018)	Parallel RCT	33	MD -0.70 (-3.54 to 2.14)	Very Serious[1]	NA	Serious[2]	Very Serious[14]	Very low
Difficult child score postintervention: assessed using the Parenting Stress Index (PSI)								
1 (Conn 2018)	Parallel RCT	33	MD -0.50 (-6.61 to 5.61)	Very Serious[1]	NA	Serious[2]	Very Serious[15]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Change in difficult child score postintervention: assessed using the Parenting Stress Index (PSI)								
1 (Conn 2018)	Parallel RCT	33	MD -0.60 (-6.33 to 5.13)	Very Serious[1]	NA	Serious[2]	Very Serious[16]	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 0.5*SD in the control group=6)
4. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group = 4.8)
5. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group = 5.4)
6. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group = 5.1)
7. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group= 5.5)
8. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group= 5.3)
9. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group= 6.1)
10. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group= 11.2)
11. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group=3.4)
12. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group= 4.5)
13. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 lines of MID (defined as 0.5*SD in the control group= 1.7)
14. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group= 2.4)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

15. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group= 4.3)
16. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group= 5.5)

Incredible Years parent training vs CAU

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Parent and foster parent combined mean externalising score at postintervention: assessed using the CBCL[1]								
1 (Linares 2006)	Parallel RCT	128	MD -0.96 (-4.03 to 2.11)	Very Serious[2]	NA	Serious[3]	Not Serious	Very low
Parent and foster parent combined mean externalising score at 3-months follow up: assessed using the CBCL[1]								
1 (Linares 2006)	Parallel RCT	128	MD -3.35 (-7.12 to 0.43)	Very Serious[2]	NA	Serious[3]	Serious[4]	Very low
Parent and foster parent combined mean externalising and conduct problems score at postintervention: assessed using the Eyberg Child Behavior Inventory (ECBI)[1]								
1 (Linares 2006)	Parallel RCT	128	MD -1.75 (-4.62 to 1.11)	Very Serious[2]	NA	Serious[3]	Not Serious	Very low
Parent and foster parent combined mean externalising and conduct problems score at 3-months follow up: assessed using the ECBI[1]								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Linares 2006)	Parallel RCT	128	MD -3.10 (-6.72 to 0.52)	Very Serious[2]	NA	Serious[3]	Serious[5]	Very low
Teacher-reported mean disruptive classroom behaviour score at postintervention: assessed using the Sutter–Eyberg Student Behaviour Inventory—Revised (SESBI–R) [1]								
1 (Linares 2006)	Parallel RCT	128	MD 0.50 (-5.03 to 6.03)	Very Serious[2]	NA	Serious[3]	Not Serious	Very low
Teacher-reported mean disruptive classroom behaviour score at 3-months follow up: assessed using the SESBI–R [1]								
1 (Linares 2006)	Parallel RCT	128	MD 3.63 (-5.72 to 12.98)	Very Serious[2]	NA	Serious[3]	Not Serious	Very low
Foster carer reported physical aggression at post-intervention: assessed using the CBCL Aggression subscale (lower scores favour intervention group)								
1 (Linares 2012)	Parallel RCT	94	MD -0.08 [-1.36, 1.20]	Not Serious	NA	Serious[3]	Not Serious	Moderate
Foster carer reported physical aggression at 3-months follow up: assessed using the CBCL Aggression subscale (lower scores favour intervention group)								
1 (Linares 2012)	Parallel RCT	94	**MD 1.14 [0.08, 2.20]**	Not Serious	NA	Serious[3]	Serious[6]	Moderate
Association between being in the intervention group and foster carer reported physical aggression at 3-months follow up: assessed using the CBCL Aggression subscale, adjusted for baseline score, gender, ethnicity, ADHD diagnosis, and study site (estimate, standard error, and P value)								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Linares 2012)	Parallel RCT	94	Estimate 0.07; SE 0.39; P=>0.05	Not Serious	NA	Serious[3]	NE[7]	Moderate
Association between being in the intervention group and change in foster carer reported physical aggression from baseline to 3-months follow up: assessed using the CBCL Aggression subscale, adjusted for baseline score, gender, ethnicity, ADHD diagnosis, and study site (estimate, standard error, and P value)								
1 (Linares 2012)	Parallel RCT	94	**Estimate 1.41; SE 0.50; P=<0.01**	Not Serious	NA	Serious[3]	NE[7]	Moderate
Foster carer reported good self-control at post-intervention: assessed using a 51-item self-control construct (Wills et al. 2007) (higher scores favour intervention group)								
1 (Linares 2012)	Parallel RCT	94	MD -0.17 [-0.52, 0.18]	Not Serious	NA	Serious[3]	Not Serious	Moderate
Foster carer reported good self-control at 3-months follow up: assessed using a 51-item self-control construct (Wills et al. 2007) (higher scores favour intervention group)								
1 (Linares 2012)	Parallel RCT	94	**MD -0.45 [-0.80, -0.10]**	Not Serious	NA	Serious[3]	Not Serious	Moderate
Association between being in the intervention group and foster carer reported Good self-control at 3-months follow up: assessed using a 51-item self-control construct (Wills et al. 2007), adjusted for baseline score, gender, ethnicity, ADHD diagnosis, and study site (estimate, standard error, and P value)								
1 (Linares 2012)	Parallel RCT	94	**Estimate -0.27; SE 0.12; P=<0.05**	Not Serious	NA	Serious[3]	NE[7]	Moderate

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 change in foster carer reported Good self-control from baseline to 3-months follow up: assessed using a 51-item self-control construct (Wills et al. 2007), adjusted for baseline score, gender, ethnicity, ADHD diagnosis, and study site (estimate, standard error, and P value)								
1 (Linares 2012)	Parallel RCT	94	**Estimate -0.33; SE 0.15; p=<0.05**	Not Serious	NA	Serious[3]	NE[7]	Moderate
Foster carer reported poor self-control at post-intervention: assessed using a 51-item self-control construct (Wills et al. 2007) (lower scores favour intervention group)								
1 (Linares 2012)	Parallel RCT	94	**MD 0.51 [0.12, 0.90]**	Not Serious	NA	Serious[3]	Not Serious	Moderate
Foster carer reported poor self-control at 3-months follow up: assessed using a 51-item self-control construct (Wills et al. 2007) (lower scores favour intervention group)								
1 (Linares 2012)	Parallel RCT	94	**MD 0.40 [0.00, 0.80]**	Not Serious	NA	Serious[3]	Not Serious	Moderate
Association between being in the intervention group and foster carer reported poor self-control at 3-months follow up: assessed using a 51-item self-control construct (Wills et al. 2007), adjusted for baseline score, gender, ethnicity, ADHD diagnosis, and study site (estimate, standard error, and P value)								
1 (Linares 2012)	Parallel RCT	94	Estimate 0.10; SE 0.14; p=>0.05	Not Serious	NA	Serious[3]	NE[7]	Moderate
Association between being in the intervention group and change in foster carer reported poor self-control from baseline to 3-months follow up: assessed using a 51-item self-control construct (Wills et al. 2007), adjusted for baseline score, gender, ethnicity, ADHD diagnosis, and study site (estimate, standard error, and P value)								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Linares 2012)	Parallel RCT	94	Estimate -0.04; SE 0.16; p=>0.05	Not Serious	NA	Serious[3]	NE[7]	Moderate
Teacher reported physical aggression at post-intervention: assessed using the SESBI–R								
1 (Linares 2012)	Parallel RCT	94	MD -1.05 [-5.87, 3.77]	Not Serious	NA	Serious[3]	Not Serious	Moderate
Teacher reported physical aggression at 3-months follow up: assessed using the SESBI–R								
1 (Linares 2012)	Parallel RCT	94	MD -1.85 [-6.47, 2.77]	Not Serious	NA	Serious[3]	Serious[8]	Low
Teacher reported good self-control at post-intervention: assessed using a 51-item self-control construct (Wills et al. 2007)								
1 (Linares 2012)	Parallel RCT	94	MD -0.01 [-0.36, 0.34]	Not Serious	NA	Serious[3]	Not Serious	Moderate
Teacher reported good self-control at 3-months follow up: assessed using a 51-item self-control construct (Wills et al. 2007)								
1 (Linares 2012)	Parallel RCT	94	MD 0.08 [-0.26, 0.42]	Not Serious	NA	Serious[3]	Not Serious	Moderate
Teacher reported poor self-control at post-intervention: assessed using a 51-item self-control construct (Wills et al. 2007)								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Linares 2012)	Parallel RCT	94	MD 0.01 [-0.40, 0.42]	Not Serious	NA	Serious[3]	Not Serious	Moderate
Teacher reported poor self-control at 3-months follow up: assessed using a 51-item self-control construct (Wills et al. 2007)								
1 (Linares 2012)	Parallel RCT	94	MD -0.13 [-0.52, 0.26]	Not Serious	NA	Serious[3]	Not Serious	Moderate

1. Calculated using reported means and 95%CIs
2. 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. Biological parents were collecting data in one arm and foster parents were collecting data in the other arm. This might introduce bias.
3. Downgrade 1 level for serious indirectness since study was based in USA
4. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 lines of MID (defined as 0.5*SD in the control group= 5.5)
5. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 lines of MID (defined as 0.5*SD in the control group = 6)
6. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 lines of MID (defined as 0.5*SD in the control group = 1.3)
7. Downgrade two levels as imprecision was non estimable
8. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 lines of MID (defined as 0.5*SD in the control group = 5.7)

Incredible Years parent training vs WL

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Behaviour Intensity score 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	Serious[2]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Hyperactivity score at 6-month follow up (SDQ)								
1 (Bywater 2011)	Parallel RCT	46	MD -0.60 (-2.23 to 1.03)	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 1 level for serious imprecision since confidence intervals crossed 1 line 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=1.4)

Natural mentoring intervention vs CAU

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Self-reported connection to people in school, mean score, postintervention: assessed using Goodenow's Psychological Sense of School Membership								
1 (Greeson 2017)	Parallel RCT	17	MD 0.20 (-0.68 to 1.08)	Serious[1]	N/A	Serious[2]	Very Serious[3]	Very low
Self-reported youth/natural mentor relationship quality, mean score, postintervention: assessed using the Youth Mentoring Survey								
1 (Greeson 2017)	Parallel RCT	17	MD 0.30 (-0.05 to 0.65)	Serious[1]	N/A	Serious[2]	Serious[4]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Self-reported youth/natural mentor relationship quality, mean score, postintervention: assessed using the Relational Health Indices								
1 (Greeson 2017)	Parallel RCT	17	MD 0.30 (-0.22 to 0.82)	Serious[1]	N/A	Serious[2]	Serious[5]	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 2 levels for serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group=0.4)
4. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group= 0.2)
5. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=0.3)

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 reported deviant attitudes score mean score at 3-months follow up: assessed using an author derived scale								
1 (Haggerty 2016)	Parallel RCT	60	MD -0.15 (-0.38 to 0.08)	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Teen-reported family conflict score mean score at 3-months follow up: assessed using the Moos Family Environment Scale								
1 (Haggerty 2016)	Parallel RCT	60	MD -0.10 (-0.25 to 0.05)	Very Serious[1]	N/A	Serious[2]	Serious[4]	Very low
Caregiver-reported family conflict score mean score at 3-months follow up: assessed using the Moos Family Environment Scale								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Haggerty 2016)	Parallel RCT	60	MD 0.08 (-0.06 to 0.22)	Very Serious[1]	N/A	Serious[2]	Serious[5]	Very low
Caregiver-reported positive involvement score mean score at 3-months follow up: assessed using an author developed scale								
1 (Haggerty 2016)	Parallel RCT	60	MD 0.17 (-0.15 to 0.49)	Very Serious[1]	N/A	Serious[2]	Serious[6]	Very low
Teen-reported bonding/attachment mean score at 3-months follow up: assessed using the modified version of the Inventory of Parent and Peer Attachment								
1 (Haggerty 2016)	Parallel RCT	60	**MD 0.40 (0.01 to 0.79)**	Very Serious[1]	N/A	Serious[2]	Serious[7]	Very low

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= 0.24)
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 =0.16)
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 =0.14)
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 =0.33)
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 =0.40)

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
Foster parent-reported mean internalising problem score at postintervention: assessed using the CBCL								
1 (Haight 2010)	Parallel RCT	15	MD 4.00 (-5.07 to 13.07)	Very Serious[1]	N/A	Serious[2]	Very Serious[3]	Very low
Foster parent-reported mean externalising problem score at postintervention: assessed using the CBCL								
1 (Haight 2010)	Parallel RCT	15	MD -7.00 (-16.07 to 2.07)	Very Serious[1]	N/A	Serious[2]	Serious[4]	Very low
Foster parent-reported mean total problem behaviour score at postintervention: assessed using the CBCL								
1 (Haight 2010)	Parallel RCT	15	MD -2.00 (-12.29 to 8.29)	Very Serious[1]	N/A	Serious[2]	Very Serious[3]	Very low

6. 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 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).
7. Downgrade 1 level for serious indirectness since study was based in USA
8. Downgrade 2 levels for serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group=4.9)
9. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=4.9)
10. Downgrade 2 levels for serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group=5.9)

Middle School Success intervention vs CAU

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 foster parent and girl reported internalising problems at 6 months: assessed by Parent Daily Report Checklist								
1 (Kim 2011, Smith 2011)	Parallel RCT	100	**β -0.28 P<0.01**[1]	Very serious[2]	N/A	Serious[3]	NE[4]	Very low
Association between being in the intervention group and foster parent and girl reported externalising problems at 6 months: assessed by Parent Daily Report Checklist								
1 (Kim 2011, Smith 2011)	Parallel RCT	100	**β -0.21 P<0.01**[5]	Very serious[2]	N/A	Serious[3]	NE[4]	Very low
Association between being in the intervention group and foster parent and girl reported prosocial behaviour at 6 months: assessed by Parent Daily Report Checklist								
1 (Kim 2011, Smith 2011)	Parallel RCT	100	β 0.15 P>0.05[7]	Very serious[2]	N/A	Serious[3]	NE[4]	Very low
Prosocial behaviour score at 6/12 months follow up: assessed by a subscale from the Parent Daily Report Checklist								
1 (Kim 2011, Smith 2011)	Parallel RCT	100	**MD 0.06 (0.01 to 0.11)**	Very serious[2]	N/A	Serious[3]	Serious[8]	Very low
Caregiver-reported Internalising/externalising symptoms score at 12/24 months follow up: assessed by the Achenbach System of Empirically Based Assessment								
1 (Kim 2011, Smith 2011)	Parallel RCT	100	MD 0.27 (-3.03 to 3.57)	Very serious[2]	N/A	Serious[3]	Not Serious	Very low
Delinquent behaviour score at 3 years follow up: assessed using the Self-Report Delinquency Scale								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Kim 2011, Smith 2011)	Parallel RCT	100	MD -0.65 (-1.43 to 0.13)	Very serious[2]	N/A	Serious[3]	Serious[9]	Very low
Association with delinquent peers score at 3 years follow up: assessed by a modified version of the general delinquency scale from the Self-Report Delinquency Scale								
1 (Kim 2011, Smith 2011)	Parallel RCT	100	MD -0.34 (-0.71 to 0.03)	Very serious[2]	N/A	Serious[3]	Serious[10]	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 two levels as imprecision was non estimable
5. Adjusted for age, maltreatment history, pubertal development, externalising behaviours at baseline
6. Adjusted for age, maltreatment history, pubertal development, prosocial behaviours at baseline
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 = 0.07)
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 = 1.34)
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 = 0.51)

Supporting Siblings in Foster Care vs Foster Care as Usual

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 sibling relationship quality mean score at 18 months: assessed using the multi-agent construct of sibling relationship quality (MAC-SRQ)								
1 (Kothari 2017)	Parallel RCT	328	**beta coefficient 0.275 (0.067 to 0.483)[1]**	Not Serious	N/A	Serious[2]	NE[3]	Moderate
Association between being in the intervention group and foster parent-reported mean externalising problem score at 18 months: assessed using the sibling relationship questionnaire (SRQ)								
1 (Kothari 2017)	Parallel RCT	328	beta coefficient 0.083 (-0.119 to 0.285)[1]	Not Serious	N/A	Serious[2]	NE[3]	Moderate
Association between being in the intervention group and sibling interaction quality at 18 months: assessed using the sibling interaction quality (SIQ) score								
1 (Kothari 2017)	Parallel RCT	328	**beta coefficient 2.36 (0.037 to 0.435)[1]**	Not Serious	N/A	Serious[2]	NE[3]	Moderate

1. Adjusted for non-white ethnicity, gender, age, living apart, younger/older sibling
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade two levels as imprecision was non estimable

Family Finding Intervention vs CAU

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Number achieving relational permanency over 3-year observation period: assessed using a constructed variable based on qualitative data extracted from case records								
1 (Landsman 2014/2016)	Parallel RCT	243	**OR 2.28 (1.33 to 3.94**	Very serious[1]	N/A	Serious[2]	Not Serious	Very low
Association between being in intervention group and relational permanency over 3-year observation period: assessed using a constructed variable based on qualitative data extracted from case records								
1 (Landsman 2014/2016)	Parallel RCT	243	**Beta coefficient 0.87 (0.26 to 1.48)[3]**	Very serious[1]	N/A	Serious[2]	NE[4]	Very low

1. Downgrade 2 levels for very serious risk of bias: No details of the randomization method. There are slight differences in gender between the arms. No allocation concealment. No blinding. Although randomization was prospective, data collection was retrospective via records. Some of the outcomes are subjective.
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Adjusted for gender
4. Downgrade two levels as imprecision was non estimable

Head Start vs CAU

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 teacher-rated teacher-child relationship at 1 year: assessed by student-teacher relationship scale								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Lipscomb 2013)	Parallel RCT	253	**β 0.30 (0.12 to 0.48)[1]**	Very serious[2]	N/A	Serious[3]	NE[4]	Very low
Association between being in the intervention group and teacher/caregiver-reported behaviour problems at 1 year: assessed by Achenbach Child Behaviour Checklist/Adjustment scales for Preschool interventions								
1 (Lipscomb 2013)	Parallel RCT	253	**β -0.18 (-0.36 to 0.00)[1]**	Very serious[2]	N/A	Serious[3]	NE[4]	Very low
Association between being in the intervention group and child-teacher relationship at 5 - 6 years of age: assessed by the modified Robert Pianta scale								
1 (Lee 2016a, Lee 2016b)	Parallel RCT	162	β -0.30 (-1.01 to 0.41)[5]	Very serious[6]	N/A	Serious[3]	NE[4]	Very low
Association between being in the intervention group and teacher-rated aggressive score at 5 - 6 years of age: assessed by Adjustment Scales for Preschool Intervention								
1 (Lee 2016a, Lee 2016b)	Parallel RCT	162	β -1.57 (-1.41 to 4.55)[5]	Very serious[6]	N/A	Serious[3]	NE[4]	Very low
Association between being in the intervention group and teacher-rated hyperactive score at 5 - 6 years of age: assessed by Adjustment Scales for Preschool Intervention								
1 (Lee 2016a, Lee 2016b)	Parallel RCT	162	**β -3.28 (-6.26 to -0.30)[5]**	Very serious[6]	N/A	Serious[3]	NE[4]	Very low

1. Adjusted for baseline preacademic skills, baseline behaviour problems, age, special education needs, gender, family income to needs ratio, authoritarian caregiving, parent child reading, change in caregiver over prior year.
2. Downgrade 2 levels for very serious risk of bias: Study did not provide information about differences between comparison groups for baseline characteristics other than for age and ethnicity; no information regarding whether any participants deviated from their planned intervention; no information about the approach to missing data or loss to follow up; unclear whether there was significant missing data and how this varied between comparison groups; outcomes could have been influenced by knowledge of the intervention group; unclear that

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
blinding was performed; insufficient information provided about methods and analysis plan; no explanation of why certain covariables were included in the final model. 3. Downgrade 1 level for serious indirectness since study was based in USA 4. Downgrade two levels as imprecision was non estimable 5. Adjusted for age, gender, special education needs, lower cognitive skills at baseline, ethnicity, education, family income, relative care, parental book reading. 6. Downgrade 2 levels for very serious risk of bias: unclear how randomisation was performed; unclear if allocation concealment; no-shows accounted for 15 and 20 percent of the full randomly assigned Head Start sample; crossovers accounted for 17 and 14 percent of the randomly assigned control group; unclear how much missing data for participants included in this study;								

Promoting Sibling Bonds vs Foster Care as Usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Association between being in the intervention groups and observer-rated sibling interaction quality (positive) mean score at postintervention: assessed using the Sibling Interaction Quality Scale								
1 (Linares 2015)	Parallel RCT	22	**Beta 0.324 (0.212 to 0.436)[1]**	Serious[2]	N/A	Serious[3]	NE[4]	Very low
Association between being in the intervention groups and observer-rated sibling interaction quality (negative) mean score at postintervention: assessed using the Sibling Interaction Quality Scale								
1 (Linares 2015)	Parallel RCT	22	**Beta 0.058 (0.09 to 1.17)[1]**	Serious[2]	N/A	Serious[3]	NE[4]	Very low
Association between being in the intervention groups and observer-rated sibling interaction quality (conflict-floor puzzle) mean score at postintervention: assessed using the Sibling Interaction Quality Scale								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Linares 2015)	Parallel RCT	22	**Beta −1.126 (-1.95 to -0.303)[1]**	Serious[2]	N/A	Serious[3]	NE[4]	Very low
Foster parent-reported sibling aggression (older sibling- verbal) mean score at postintervention: assessed using the Sibling Aggression Scale								
1 (Linares 2015)	Parallel RCT	22	MD -0.69 (-1.94 to 0.56)	Serious[2]	N/A	Serious[3]	Serious[5]	Very low
Foster parent-reported sibling aggression (older sibling- physical) mean score at postintervention: assessed using the Sibling Aggression Scale								
1 (Linares 2015)	Parallel RCT	22	MD -0.65 (-1.91 to 0.61)	Serious[2]	N/A	Serious[3]	Serious[6]	Very low
Association between being in the intervention groups and foster parent-reported sibling aggression (older sibling- physical) mean score at postintervention: assessed using the Sibling Aggression Scale								
1 (Linares 2015)	Parallel RCT	22	**Beta −1.391 (-2.473 to -0.309)[1]**	Serious[2]	N/A	Serious[3]	NE[4]	Very low
Foster parent-reported sibling aggression (younger sibling- verbal) mean score at postintervention: assessed using the Sibling Aggression Scale								
1 (Linares 2015)	Parallel RCT	22	MD -0.39 (-1.72 to 0.94)	Serious[2]	N/A	Serious[3]	Very Serious[7]	Very low
Foster parent-reported sibling aggression (younger sibling- physical) mean score at postintervention: assessed using the Sibling Aggression Scale								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Linares 2015)	Parallel RCT	22	MD -0.63 (-0.231 to 1.05)	Serious[2]	N/A	Serious[3]	Serious[8]	Very low

1. Adjusted for baseline scores and child age
2. Downgrade 1 level for serious risk of bias: Method of randomization not provided. Gender and other characteristics are not balanced between the arms. This could be due to the small sample size.
3. Downgrade 1 level for serious indirectness since study was based in USA
4. Downgrade two levels as imprecision was non estimable
5. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=0.76)
6. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=0.71)
7. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (half the standard deviation of the control arm=0.71)
8. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=1.06)

CBT-informed Parent Training programme vs Wait List control

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Carer-reported proportion of behaviours found challenging at postintervention: assessed using an author defined index: summing the number of behaviours reported as difficult and challenging by each participant and dividing this number by twenty-five (total number of behaviours that could be listed).								
1 (Macdonald 2005)	Parallel RCT	117	mean difference 0.00, p value >0.05	Very serious[1]	N/A	Serious[2]	NE[3]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Carer-reported proportion of behaviours found challenging at 6-months follow up: assessed using an author defined index: summing the number of behaviours reported as difficult and challenging by each participant and dividing this number by twenty-five (total number of behaviours that could be listed).								
1 (Macdonald 2005)	Parallel RCT	117	mean difference 0.00, p value >0.05	Very serious[1]	N/A	Serious[2]	NE[3]	Very low

1. Downgrade 2 levels for very serious risk of bias: Baseline characteristics not compared between study groups, however there were considerable differences between the numbers assigned to either group after randomisation (50 vs 67). No information was reported about adherence to the interventions or whether a per-protocol approach was used for analysis. >10% of missing data for placement breakdown outcome. Intervention group almost twice the missing data of the control group. Unclear reasons for missing data. Unclear research protocol in study, and no protocol cited.
2. Downgrade 1 level for serious indirectness since study was based in USA
3. Downgrade two levels as imprecision was non estimable

Extended Parent-Child Interaction Therapy vs Waitlist control

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Caregiver reported parenting stress (total stress scale) mean score at 8-weeks postbaseline: assessed using the PSI-SF								
1 (Mersky 2015)	Parallel RCT	129	MD -3.25 (-12.40 to 5.89)	Not Serious	N/A	Serious[1]	Serious[2]	Low
Caregiver reported parenting stress (total stress scale) mean score at 14-weeks postbaseline: assessed using the PSI-SF								
1 (Mersky 2015)	Parallel RCT	129	MD -5.22 (-14.46 to 4.02)	Not Serious	N/A	Serious[1]	Serious[3]	Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Caregiver reported parenting stress (parental distress subscale) mean score at 8-weeks postbaseline: assessed using the PSI-SF								
1 (Mersky 2015)	Parallel RCT	129	MD -0.82 (-4.32 to 2.68)	Not Serious	N/A	Serious[1]	Serious[4]	Low
Caregiver reported parenting stress (parental distress subscale) mean score at 14-weeks postbaseline: assessed using the PSI-SF								
1 (Mersky 2015)	Parallel RCT	129	MD -0.04 (-3.56 to 3.49)	Not Serious	N/A	Serious[1]	Not Serious	Moderate
Caregiver reported parenting stress (Parent-child Dysfunctional Interaction subscale) mean score at 8-weeks postbaseline: assessed using the PSI-SF								
1 (Mersky 2015)	Parallel RCT	129	MD -2.68 (-6.03 to 0.67)	Not Serious	N/A	Serious[1]	Serious[5]	Low
Caregiver reported parenting stress (Parent-child Dysfunctional Interaction subscale) mean score at 14-weeks postbaseline: assessed using the PSI-SF								
1 (Mersky 2015)	Parallel RCT	129	MD -2.95 (-6.36 to 0.46)	Not Serious	N/A	Serious[1]	Serious[6]	Low
Caregiver reported parenting stress (Difficult child subscale) mean score at 8-weeks postbaseline: assessed using the PSI-SF								
1 (Mersky 2015)	Parallel RCT	129	MD 0.46 (-3.90 to 4.82)	Not Serious	N/A	Serious[1]	Not Serious	Moderate
Caregiver reported parenting stress (Difficult child subscale) mean score at 14-weeks postbaseline: assessed using the PSI-SF								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Mersky 2015)	Parallel RCT	129	MD -2.49 (-6.99 to 2.01)	Not Serious	N/A	Serious[1]	Serious[7]	Low

1. Downgrade 1 level for serious indirectness since study was based in USA
2. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm= 9.09)
3. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm= 9.17)
4. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm= 3.46)
5. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm= 3.33)
6. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm= 3.33)
7. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm= 4.37)

Brief Parent-Child Interaction Therapy vs Waitlist control

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Caregiver reported parenting stress (total stress scale) mean score at 8-weeks postbaseline: assessed using the PSI-SF								
1 (Mersky 2015)	Parallel RCT	129	MD -7.41 (-15.75 to 0.93)	Not Serious	N/A	Serious[1]	Serious[2]	Low
Caregiver reported parenting stress (total stress scale) mean score at 14-weeks postbaseline: assessed using the PSI-SF								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Mersky 2015)	Parallel RCT	129	MD -3.16 (-11.88 to 5.56)	Not Serious	N/A	Serious[1]	Serious[3]	Low
Caregiver reported parenting stress (parental distress subscale) mean score at 8-weeks postbaseline: assessed using the PSI-SF								
1 (Mersky 2015)	Parallel RCT	129	MD 0.37 (-2.82 to 3.56)	Not Serious	N/A	Serious[1]	Not Serious	Moderate
Caregiver reported parenting stress (parental distress subscale) mean score at 14-weeks postbaseline: assessed using the PSI-SF								
1 (Mersky 2015)	Parallel RCT	129	MD 1.60 (-1.64 to 4.84)	Not Serious	N/A	Serious[1]	Serious[4]	Low
Caregiver reported parenting stress (Parent-child Dysfunctional Interaction subscale) mean score at 8-weeks postbaseline: assessed using the PSI-SF								
1 (Mersky 2015)	Parallel RCT	129	MD -4.05 (-7.11 to -0.99)	Not Serious	N/A	Serious[1]	Serious[5]	Low
Caregiver reported parenting stress (Parent-child Dysfunctional Interaction subscale) mean score at 14-weeks postbaseline: assessed using the PSI-SF								
1 (Mersky 2015)	Parallel RCT	129	MD -2.08 (-5.24 to 1.08)	Not Serious	N/A	Serious[1]	Serious[6]	Low
Caregiver reported parenting stress (Difficult child subscale) mean score at 8-weeks postbaseline: assessed using the PSI-SF								
1 (Mersky 2015)	Parallel RCT	129	MD -3.78 (-7.77 to 0.21)	Not Serious	N/A	Serious[1]	Serious[7]	Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Caregiver reported parenting stress (Difficult child subscale) mean score at 14-weeks postbaseline: assessed using the PSI-SF								
1 (Mersky 2015)	Parallel RCT	129	MD -2.88 (-7.04 to 1.28)	Not Serious	N/A	Serious[1]	Serious[8]	Low

1. Downgrade 1 level for serious indirectness since study was based in USA
2. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm= 9.09)
3. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm= 9.17)
4. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm= 3.42)
5. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm= 3.33)
6. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm= 3.33)
7. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm= 4.35)
8. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm= 4.37)

Extended Parent-Child Interaction Therapy vs Waitlist control

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Child behaviour mean score (intensity scale) at 8-weeks assessed using the Eyberg Child Behaviour Inventory								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Mersky 2016)	Parallel RCT	52	MD -14.9 (-35.19 to 5.39)	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Child behaviour mean score (intensity scale) at 14-weeks assessed using the Eyberg Child Behaviour Inventory								
1 (Mersky 2016)	Parallel RCT	52	MD -15.80 (-37.01 to 5.41)	Very Serious[1]	N/A	Serious[2]	Serious[4]	Very low
Child behaviour mean score (problem scale) at 8-weeks assessed using the Eyberg Child Behaviour Inventory								
1 (Mersky 2016)	Parallel RCT	52	**MD -9.40 (14.26 to 4.54)**	Very Serious[1]	N/A	Serious[2]	Serious[5]	Very low
Child behaviour mean score (problem scale) at 14-weeks assessed using the Eyberg Child Behaviour Inventory								
1 (Mersky 2016)	Parallel RCT	52	**MD -8.90 (-13.85 to -3.95)**	Very Serious[1]	N/A	Serious[2]	Serious[6]	Very low
Child behaviour mean score (externalising score) at 8-weeks: assessed using the CBCL								
1 (Mersky 2016)	Parallel RCT	52	MD -2.20 (-8.52 to 4.11)	Very Serious[1]	N/A	Serious[2]	Serious[7]	Very low
Child behaviour mean score (externalising score) at 14-weeks: assessed using the CBCL								
1 (Mersky 2016)	Parallel RCT	52	MD -5.60 (-12.16 to 0.96)	Very Serious[1]	N/A	Serious[2]	Serious[8]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Child behaviour mean score (internalising score) at 8-weeks: assessed using the CBCL								
1 (Mersky 2016)	Parallel RCT	52	MD 3.70 (-3.04 to 10.4)	Very Serious[1]	N/A	Serious[2]	Serious[9]	Very low
Child behaviour mean score (internalising score) at 14-weeks: assessed using the CBCL								
1 (Mersky 2016)	Parallel RCT	52	MD -2.90 (-9.89 to 4.09)	Very Serious[1]	N/A	Serious[2]	Serious[10]	Very low

1. Downgrade 2 levels for very serious risk of bias: Method of randomization not provided. No baseline characteristics provided to assess the success of randomization. Assessors were not blinded to the intervention.
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 (half the standard deviation of the control arm=15.1)
4. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=16.0)
5. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=4.1)
6. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=3.8)
7. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=5.1)
8. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=4.8)
9. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=5.5)
10. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=5.1)

Brief Parent-Child Interaction Therapy vs Waitlist control

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Child behaviour mean score (intensity scale) at 8-weeks assessed using the Eyberg Child Behaviour Inventory								
1 (Mersky 2016)	Parallel RCT	72	**MD -20.70 (-37.09 to -4.30)**	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Child behaviour mean score (intensity scale) at 14-weeks assessed using the Eyberg Child Behaviour Inventory								
1 (Mersky 2016)	Parallel RCT	72	MD -7.40 (-24.54 to 9.74)	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Child behaviour mean score (problem scale) at 8-weeks assessed using the Eyberg Child Behaviour Inventory								
1 (Mersky 2016)	Parallel RCT	72	**MD -8.30 (-12.27 to -4.33)**	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Child behaviour mean score (problem scale) at 14-weeks assessed using the Eyberg Child Behaviour Inventory								
1 (Mersky 2016)	Parallel RCT	72	MD -3.70 (-7.69 to 0.29)	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Child behaviour mean score (externalising score) at 8-weeks: assessed using the CBCL								
1 (Mersky 2016)	Parallel RCT	72	MD -4.80 (-9.81 to 0.21)	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
Child behaviour mean score (externalising score) at 14-weeks: assessed using the CBCL								
1 (Mersky 2016)	Parallel RCT	72	MD -2.40 (-7.54 to 2.74)	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Child behaviour mean score (internalising score) at 8-weeks: assessed using the CBCL								
1 (Mersky 2016)	Parallel RCT	72	MD -4.60 (-9.94 to 0.74)	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Child behaviour mean score (internalising score) at 14-weeks: assessed using the CBCL								
1 (Mersky 2016)	Parallel RCT	72	MD -3.20 (-8.68 to 2.28)	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low

1. Downgrade 2 levels for very serious risk of bias: Method of randomization not provided. No baseline characteristics provided to assess the success of randomization. Assessors were not blinded to the intervention.
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 (half the standard deviation of the control arm=15.1)
4. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=16.0)
5. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=4.1)
6. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=3.8)
7. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=5.1)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

8. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=4.8)
9. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=5.5)
10. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=5.1)

Child-Directed Interaction Training vs Wait list control

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Caregiver-reported child-parent relationship mean score at postintervention: assessed using the Child-parent Relationship Scale								
1 (N'zi 2016)	Parallel RCT	15	MD 5.57 (0.98 to 10.16)	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Caregiver-reported child externalising behaviour mean score at postintervention: assessed using the CBCL								
1 (N'zi 2016)	Parallel RCT	15	**MD -9.72 (-19.23 to -0.21)**	Very Serious[1]	N/A	Serious[2]	Serious[4]	Very low
Caregiver-reported child internalising behaviour mean score at postintervention: assessed using the CBCL								
1 (N'zi 2016)	Parallel RCT	15	MD -2.28 (-13.19 to 8.63)	Very Serious[1]	N/A	Serious[2]	Very Serious[5]	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 provided to assess the success of randomization. No blinding and many of the outcomes are fairly 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=2.48)
4. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (defined as 0.5*SD in the control group=4.95)
5. Downgrade 2 levels for serious imprecision since confidence intervals crossed 2 lines of MID (defined as 0.5*SD in the control group=6.65)

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
Number with self-reported secure attachment style at 12 month follow up: assessed using the Attachment Style Questionnaire								
1 (Mezey 2015)	Parallel RCT	19	OR 1.71 (0.23 to 12.89)	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Number with self-reported fearful attachment style at 12 month follow up: assessed using the Attachment Style Questionnaire								
1 (Mezey 2015)	Parallel RCT	19	OR 0.63 (0.09 to 4.40)	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Number with self-reported dismissing attachment style at 12 month follow up: assessed using the Attachment Style Questionnaire								
1 (Mezey 2015)	Parallel RCT	19	OR 4.00 (0.35 to 45.38)	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
Number who self-reported that they were "unlikely, or more than unlikely, to seek help from no one for a personal or emotional problem" at 12 months follow up								
1 (Mezey 2015)	Parallel RCT	19	OR 0.64 (0.05 to 8.62)[3]	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Number who self-reported that they were "unable to trust anyone" at 12 months follow up								
1 (Mezey 2015)	Parallel RCT	19	OR 0.83 (0.13 to 5.17)[3]	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Number in contact with the police in the last year								
1 (Mezey 2015)	Parallel RCT	19	OR 10.20 (0.47 to 222.45)	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Number cautioned/convicted in the last year								
1 (Mezey 2015)	Parallel RCT	19	OR 7.00 (0.31 to 157.26)	Very Serious[1]	N/A	Not Serious	Very Serious[2]	Very low
Number in contact with the Youth Offending Team in the last year								
1 (Mezey 2015)	Parallel RCT	19	OR 4.47 (0.19 to 106.96)	Very Serious[1]	N/A	Not Serious	Very Serious[2]	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)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

3. Calculated using reported percentages

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
Reactive attachment mean score at postintervention: assessed using the Reactive Attachment Disorder Scale								
1 (Minnis 2001)	Parallel RCT	100	**MD 4.00 (1.26 to 6.74)**	Not Serious	N/A	Not Serious	Serious[1]	Moderate
Reactive attachment mean score at postintervention (adjusted): assessed using the Reactive Attachment Disorder Scale								
1 (Minnis 2001)	Parallel RCT	100	MD 0.53 (-1.6 to 2.6)[2]	Not Serious	N/A	Not Serious	Not Serious	High
Reactive attachment mean score at 9-month follow up: assessed using the Reactive Attachment Disorder Scale								
1 (Minnis 2001)	Parallel RCT	151	MD 3.00 (0.08 to 5.92)	Not Serious	N/A	Not Serious	Serious[1]	Moderate
Reactive attachment mean score at 9-month follow up (adjusted): assessed using the Reactive Attachment Disorder Scale								
1 (Minnis 2001)	Parallel RCT	151	MD -1.2 (-3.5 to 1.1)[4]	Not Serious	N/A	Not Serious	Not Serious	High

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

1. Downgrade 1 level for very serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=4.5)
2. Adjusted for pretraining scores, the number of children previously looked after by the foster carers, and the sex and age of the child.
3. Adjusted for pretraining scores, the number of siblings in placement, and the age of the child.

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
Caregiver-reported social competence score postintervention: assessed using the Brief Infant Toddler Social and Emotional Assessment								
1 (Pasalich 2016/Spieker 2014/Spieker 2012)	Parallel RCT	210	MD 0.00 (-0.86 to 0.86)	Serious[1]	N/A	Serious[2]	Not Serious	Low
Caregiver-reported social competence score 6-months follow up: assessed using the Brief Infant Toddler Social and Emotional Assessment								
1 (Pasalich 2016/Spieker 2014/Spieker 2012)	Parallel RCT	210	MD -0.41 (-1.23 to 0.41)	Serious[1]	N/A	Serious[2]	Not Serious	Low
Caregiver-reported problem behaviour score postintervention: assessed using the Brief Infant Toddler Social and Emotional Assessment								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Pasalich 2016/Spieker 2014/Spieker 2012)	Parallel RCT	210	MD 0.09 (-1.61 to 1.79)	Serious[1]	N/A	Serious[2]	Not Serious	Low
Caregiver-reported problem behaviour score 6-months follow up: assessed using the Brief Infant Toddler Social and Emotional Assessment								
1 (Pasalich 2016/Spieker 2014/Spieker 2012)	Parallel RCT	210	MD 0.79 (-0.77 to 2.35)	Serious[1]	N/A	Serious[2]	Not Serious	Low
Observer-coded attachment security score postintervention: assessed using the Toddler Attachment Sort-45								
1 (Pasalich 2016/Spieker 2014/Spieker 2012)	Parallel RCT	210	MD 0.04 (-0.04 to 0.12)	Serious[1]	N/A	Serious[2]	Not Serious	Low
Observer-coded attachment security score at 6-months follow up: assessed using the Toddler Attachment Sort-45								
1 (Pasalich 2016/Spieker 2014/Spieker 2012)	Parallel RCT	210	MD -0.02 (-0.13 to 0.09)	Serious[1]	N/A	Serious[2]	Not Serious	Low
Caregiver-reported caregiver-child engagement score at postintervention: assessed using the Indicator of Parent-Child Interaction Assessment								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Pasalich 2016/Spieker 2014/Spieker 2012)	Parallel RCT	210	MD -0.07 (-0.21 to 0.07)	Serious[1]	N/A	Serious[2]	Not Serious	Low
Caregiver-reported caregiver-child engagement score at 6-months follow up: assessed using the Indicator of Parent-Child Interaction Assessment								
1 (Pasalich 2016/Spieker 2014/Spieker 2012)	Parallel RCT	210	MD -0.09 (-0.23 to 0.05)	Serious[1]	N/A	Serious[2]	Not Serious	Low
Caregiver-reported internalising behaviour score at 6-months: assessed using the CBCL								
1 (Pasalich 2016/Spieker 2014/Spieker 2012)	Parallel RCT	210	MD -0.16 (-1.62 to 1.30)	Serious[1]	N/A	Serious[2]	Not Serious	Low
Caregiver-reported externalising behaviour score at 6-months: assessed using the CBCL								
1 (Pasalich 2016/Spieker 2014/Spieker 2012)	Parallel RCT	210	MD -1.07 (-3.36 to 1.22)	Serious[1]	N/A	Serious[2]	Not Serious	Low
Caregiver-reported emotional regulation score at 6-months: assessed using the Bayley-III Screening Test								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Pasalich 2016/Spieker 2014/Spieker 2012)	Parallel RCT	210	MD 0.12 (-0.06 to 0.30)	Serious[1]	N/A	Serious[2]	Not Serious	Low
Caregiver-reported orientation/engagement score at 6-months: assessed using the Bayley-III Screening Test								
1 (Pasalich 2016/Spieker 2014/Spieker 2012)	Parallel RCT	210	MD 0.03 (-0.11 to 0.17)	Serious[1]	N/A	Serious[2]	Not Serious	Low

1. Downgrade 1 level for serious risk of bias: Unclear if allocation concealment. participants in PFR were more likely to have been removed from birthparents home more than once. Fidelity outcomes reported and appears to be modified intention to treat analysis. A significant proportion of attrition was as a result of change in caregiver which could be directly related to child outcomes. However, the proportion of attrition was similar between groups. Particularly large loss to follow up.
2. Downgrade 1 level for serious indirectness since study was based in USA

The Ross programme vs residential care as usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Social Problem Solving Avoidance score postintervention: assessed by Social Problem-Solving Inventory–Revised: Short Version								
1 (Curran 2009)	Parallel RCT	28	**MD -18.36 (-28.69 to -8.03)**	Very serious[1]	N/A	Not Serious	Not Serious	Low
Behaviour problems total difficulties score postintervention: assessed by Revised Rutter Scale For School-age Children								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Curran 2009)	Parallel RCT	28	**MD -2.43 (-3.99 to -0.87)**	Very serious[1]	N/A	Not Serious	Serious[2]	Very Low
Behaviour problems conduct difficulties score postintervention: assessed by Revised Rutter Scale For School-age Children								
1 (Curran 2009)	Parallel RCT	28	**MD -9.55 (-14.37 to -4.73)**	Very serious[1]	N/A	Not Serious	Not Serious	Low
Education risk of re-offending and aggressive and delinquent behaviours postintervention: assessed by Youth Level of Service/Case Management Inventory								
1 (Curran 2009)	Parallel RCT	28	**MD -2.28 (-3.18 to -1.38)**	Very serious[1]	N/A	Not Serious	Not Serious	Low
Personality/behaviour risk of re-offending and aggressive and delinquent behaviours postintervention: assessed by Youth Level of Service/Case Management Inventory								
1 (Curran 2009)	Parallel RCT	28	**MD -2.72 (-3.51 to -1.93)**	Very serious[1]	N/A	Not Serious	Not Serious	Low
Total risk of re-offending and aggressive and delinquent behaviours postintervention: assessed by Youth Level of Service/Case Management Inventory								
1 (Curran 2009)	Parallel RCT	28	**MD -6.14 (-8.77 to -3.51)**	Very serious[1]	N/A	Not Serious	Not Serious	Low

1. Downgrade 2 levels for very serious risk of bias: Unclear how randomisation was performed; unclear if allocation concealment; In addition a significant difference was observed between groups for avoidance style at baseline, however, it was unclear which other baseline variables were assessed for comparability at baseline. Unclear if missing data and how much e.g. unclear how many participants were contributing to raw scores reported. No apparent blinding for assessment of self-report outcomes, however validated measures were used. Raw scores and outcomes were only reported for significant differences.

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

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=3.67)

Therapeutic Playgroups vs CAU

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Foster parent-rated social competence at 2 weeks follow up: assessed by Child Behavior Checklist								
1 (Pears 2007)	Parallel RCT	20	**MD 1.53 (0.63 to 2.43)**	Very serious[1]	N/A	Serious[2]	Not Serious	Very low
Foster parent-rated externalising behaviours at 2 weeks follow up: assessed by Child Behavior Checklist								
1 (Pears 2007)	Parallel RCT	20	MD -2.20 (-5.59 to 1.19)	Very serious[1]	N/A	Serious[2]	Serious[3]	Very low
Foster parent-rated internalising behaviours at 2 weeks follow up: assessed by Child Behavior Checklist								
1 (Pears 2007)	Parallel RCT	20	MD 1.30 (-2.52 to 5.12)	Very serious[1]	N/A	Serious[2]	Very Serious[4]	Very low
Teacher-rated social problems at 1 month following the start of school: assessed by Teacher Report Form								
1 (Pears 2007)	Parallel RCT	20	MD 0.00 (-2.72 to 2.72)	Very serious[1]	N/A	Serious[2]	Very Serious[5]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Teacher-rated externalising behaviours at 1 month following the start of school: assessed by Teacher Report Form								
1 (Pears 2007)	Parallel RCT	20	MD 0.90 (-7.12 to 8.92)	Very serious[1]	N/A	Serious[2]	Very Serious[6]	Very low
Teacher-rated internalising behaviours at 1 month following the start of school: assessed by Teacher Report Form								
1 (Pears 2007)	Parallel RCT	20	MD 0.10 (-6.71 to 6.91)	Very serious[1]	N/A	Serious[2]	Very 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 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm=1.94)
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=1.25)
5. 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=2.02)
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=5.05)
7. 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=3.90)

Kids in Transition to School (KITS) programme vs Foster Care as Usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Prosocial skills score following intervention: assessed by Preschool Penn Interactive Peer Play Scale (PIPPS) score								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	MD -0.05 (-0.17 to 0.07)	Very serious[1]	N/A	Serious[2]	Not Serious	Very low
Social competence score following intervention: assessed by the Child Behaviour Checklist								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	MD -0.10 (-0.67 to 0.47)	Very serious[1]	N/A	Serious[2]	Not Serious	Very low
Association between being in the intervention group and prosocial skills following intervention before starting school: assessed by composite of indicators of prosocial skills, above (prosocial skills score, social competence score, and emotional understanding score)								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	β 0.4 P>0.05[4]	Very serious[1]	N/A	Serious[2]	NE[3]	Very low
Behavioural regulation score following intervention: assessed by a composite score of the Activity Level subscale and Impulsivity subscale (of the Childrens Behaviour Questionnaire), the Externalizing subscale (of the Child Behaviour Checklist), and the Lability subscale of the Emotion Regulation Checklist (ERC)								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	MD 0.14 (-0.11 to 0.39)	Very serious[1]	N/A	Serious[2]	Not Serious	Very low
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[5]	Very serious[1]	N/A	Serious[2]	NE[3]	Very low
Teacher-reported aggressive behaviour at the end of kindergarten year: assessed by the aggressive behavior subscales of the Teacher Report Form								
1 (Pears 2012, Pears (2013), Pears	Parallel RCT	192	MD -1.84 (-4.81 to 1.13)	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
(2016), Lynch (2017))								
Teacher-reported delinquent behaviour at the end of kindergarten year: assessed by the delinquent behavior subscales of the Teacher Report Form								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	MD -0.58 (-1.21 to 0.05)	Very serious[1]	N/A	Serious[2]	Not Serious	Very low
Teacher-reported oppositional behaviour at the end of kindergarten year: assessed by the oppositional subscale of the Conners' Teacher Ratings Scales-Revised: Short version (CTRS:S)								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	MD -0.81 (-1.78 to 0.16)	Very serious[1]	N/A	Serious[2]	Not Serious	Very low
Association between being in the intervention group and child oppositional and aggressive behaviours at the end of kindergarten year: assessed by composite of indicators of oppositional and aggressive behaviours, above (aggressive behaviour, delinquent behaviour, and oppositional behaviour).								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	β -0.17 P<0.05[6]	Very serious[1]	N/A	Serious[2]	NE[3]	Very low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Days free from internalising symptoms over 12 months of kindergarten: assessed by symptom reports from caregivers on the Child Behavior Checklist (CBCL) to create days that had significant internalizing symptoms								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	MD 26.00 (0.05 to 51.95)	Very serious[1]	N/A	Serious[2]	Serious[7]	Very low
Days free from externalising problems over 12 months of kindergarten: assessed by symptom reports from caregivers on the Child Behavior Checklist (CBCL) to create days that had significant externalizing behaviors								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	MD 26.60 (-2.76 to 55.96)	Very serious[1]	N/A	Serious[2]	Serious[8]	Very low
Positive attitudes towards antisocial behaviours at 9 years of age: assessed based on responses to 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?"								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	MD -0.09 (-0.27 to 0.09)	Very serious[1]	N/A	Serious[2]	Serious[9]	Very low
Involvement with deviant peers at 9 years of age: assessed by responses to questions about whether "none", "some", or "all" of their friends were involved in five rule-breaking or deviant behaviors								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	MD -0.19 (-0.44 to 0.06)	Very serious[1]	N/A	Serious[2]	Not Serious	Very low
Association between being in the intervention group and positive attitudes towards antisocial behaviour at 9 years of age: assessed based on 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?"								
1 (Pears 2012, Pears (2013), Pears (2016), Lynch (2017))	Parallel RCT	192	β -0.11 P<0.05[10]	Very serious[1]	N/A	Serious[2]	NE[3]	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. Downgrade two levels as imprecision was non estimable
4. Adjusted for gender, kinship foster care, prosocial skills at baseline
5. Adjusted for gender, Latino ethnicity, self-regulatory skills at baseline, day-care attendance
6. Adjusted for oppositional and aggressive behaviours at baseline, gender, overall level of disruptiveness in classroom
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=50.8)
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=52.3)
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=0.16)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
10. 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								

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 externalizing problems (SDQ) mean score at postintervention: measured using the Strengths and Difficulties Questionnaire (SDQ)								
1 (Shuurmans 2017)	Parallel RCT	37	MD -4.28 (-7.52 to -1.04)	Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Self-reported externalizing problems (SDQ) mean score at 4-months follow up: measured using the SDQ								
1 (Shuurmans 2017)	Parallel RCT	37	MD -4.22 (-6.57 to -1.87)	Serious[1]	N/A	Serious[2]	Not Serious	Very low
Mentor-reported externalizing problems (SDQ) mean score at postintervention: measured using the Strengths and Difficulties Questionnaire (SDQ)								
1 (Shuurmans 2017)	Parallel RCT	37	MD -0.39 (-3.33 to 2.55)	Serious[1]	N/A	Serious[2]	Very Serious[4]	Low
Mentor-reported externalizing problems (SDQ) mean score at 4-months follow up: measured using the SDQ								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Shuurmans 2017)	Parallel RCT	37	MD -0.83 (-3.58 to 1.92)	Serious[1]	N/A	Serious[2]	Serious[5]	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 1 level for serious imprecision since confidence intervals crossed one line of minimum important effect (half the standard deviation of the control arm= 2.49)
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=1.97)
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=2.43)

Foster Family Intervention vs CAU

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 parent-child interaction (sensitivity) mean score at 6-months post-baseline: measured using the Emotional Availability Scales								
1 (Van Andel 2016)	Parallel RCT	123	**Beta: 2.49 (1.39 to 3.58)**	Serious[1]	N/A	Serious[2]	NE[3]	Very Low
Association between being in the intervention group and parent-child interaction (structuring) mean score at 6-months post-baseline: measured using the Emotional Availability Scales								
1 (Van Andel 2016)	Parallel RCT	123	**Beta: 2.16 (1.08 to 3.24)**	Serious[1]	N/A	Serious[2]	NE[3]	Very 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 parent-child interaction (non-intrusiveness) mean score at 6-months post-baseline: measured using the Emotional Availability Scales								
1 (Van Andel 2016)	Parallel RCT	123	Beta: 1.77 (0.69 to 2.85)	Serious[1]	N/A	Serious[2]	NE[3]	Very Low
Association between being in the intervention group and parent-child interaction (responsivity) mean score at 6-months post-baseline: measured using the Emotional Availability Scales								
1 (Van Andel 2016)	Parallel RCT	123	Beta: 1.44 (0.19 to 2.69)	Serious[1]	N/A	Serious[2]	NE[3]	Very Low
Association between being in the intervention group and parent-child interaction (involvement) mean score at 6-months post-baseline: measured using the Emotional Availability Scales								
1 (Van Andel 2016)	Parallel RCT	123	Beta: 0.61 (-0.74 to 1.96)	Serious[1]	N/A	Serious[2]	NE[3]	Very Low
Association between being in the intervention group and change in parenting stress over time (stress in role as parent) mean score at 6-months post baseline: measured using the Nijmeegse Ouderlijke Stress Index								
1 (Van Andel 2016)	Parallel RCT	123	Beta: 1.81 (-2.21 to 5.82)	Serious[1]	N/A	Serious[2]	NE[3]	Very Low
Association between being in the intervention group and change in parenting stress over time (stress as a result of child factors) mean score at 6-months post baseline: measured using the Nijmeegse Ouderlijke Stress Index								
1 (Van Andel 2016)	Parallel RCT	123	Beta: -2.96 (-8.68 to 2.76)	Serious[1]	N/A	Serious[2]	NE[3]	Very Low
Association between being in the intervention group and change in parenting stress over time (total stress) mean score at 6-months post baseline: measured using the Nijmeegse Ouderlijke Stress Index								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Van Andel 2016)	Parallel RCT	123	Beta: -1.37 (-9.88 to 7.14)	Serious[1]	N/A	Serious[2]	NE[3]	Very Low

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 two levels as imprecision was non estimable

Social Learning theory-based training vs CAU

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Caregiver reported internalising behaviour mean score at postintervention: measured using the CBCL								
1 (Van Holen 2016)	Parallel RCT	123	MD -3.10 (-8.15 to 1.95)	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Caregiver reported internalising behaviour mean score at 3-months follow up: measured using the CBCL								
1 (Van Holen 2016)	Parallel RCT	123	**MD -6.62 (-12.01 to -1.23)**	Very Serious[1]	N/A	Serious[2]	Serious[4]	Very low
Caregiver reported externalising behaviour mean score at postintervention: measured using the CBCL								
1 (Van Holen 2016)	Parallel RCT	123	MD -1.43 (-5.45 to 2.59)	Very Serious[1]	N/A	Serious[2]	Serious[5]	Very low
Caregiver reported externalising behaviour mean score at 3-months follow up: measured using the CBCL								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Van Holen 2016)	Parallel RCT	123	**MD -5.32 (-9.41 to -1.23)**	Very Serious[1]	N/A	Serious[2]	Serious[6]	Very low
Caregiver reported parental stress mean score at postintervention: measured using the ijmegen Questionnaire for the Parenting Situation								
1 (Van Holen 2016)	Parallel RCT	123	MD -1.48 (-10.38 to 7.42)	Very Serious[1]	N/A	Serious[2]	Serious[7]	Very low
Caregiver reported parental stress mean score at 3-months follow up: measured using the ijmegen Questionnaire for the Parenting Situation								
1 (Van Holen 2016)	Parallel RCT	123	MD -4.79 (-14.31 to 4.73)	Very Serious[1]	N/A	Serious[2]	Serious[8]	Very low

1. Downgrade 2 levels for very serious risk of bias: No baseline characteristics of both arms to assess the success of randomisation. No blinding. Outcomes were measured by foster parents. This could lead to bias particularly since they were likely aware of the interventions.
2. Downgrade 1 level for serious indirectness since study was based in Belgium
3. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=4.96)
4. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=4.56)
5. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=4.39)
6. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=3.73)
7. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=8.03)
8. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=8.98)

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 internalising problem score at 9 months: measured using the Strengths and Difficulties Questionnaire								
1 (Suomi 2020)	Parallel RCT	123	MD 0.62 [-0.79, 2.03]	Very Serious[1]	N/A	Serious[2]	Serious[3]	Very low
Carer-reported externalising problem score at 9 months: measured using the Strengths and Difficulties Questionnaire								
1 (Suomi 2020)	Parallel RCT	123	MD 1.10 [-0.49, 2.69]	Very Serious[1]	N/A	Serious[2]	Serious[4]	Very low
Carer-reported conflict score at 9 months: measured using the Child Parent Relationship Scale								
1 (Suomi 2020)	Parallel RCT	123	MD 1.50 [-1.26, 4.26]	Very Serious[1]	N/A	Serious[2]	Serious[5]	Very low
Carer-reported closeness score at 9 months: measured using the Child Parent Relationship Scale								
1 (Suomi 2020)	Parallel RCT	123	MD -0.34 [-1.64, 0.96]	Very Serious[1]	N/A	Serious[2]	Serious[6]	Very low
Percentage of visits cancelled by parents								
1 (Suomi 2020)	Parallel RCT	123	**MD -10.27 [-17.49, -3.05]**	Very Serious[1]	N/A	Serious[2]	Serious[7]	Very low
Parent-reported conflict score at 9 months: measured using the Child Parent Relationship Scale								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Suomi 2020)	Parallel RCT	123	MD -0.25 [-3.56, 3.06]	Very Serious[1]	N/A	Serious[2]	Not Serious	Very low
Carer-reported closeness score at 9 months: measured using the Child Parent Relationship Scale								
1 (Suomi 2020)	Parallel RCT	123	MD 1.18 [-1.36, 3.72]	Very Serious[1]	N/A	Serious[2]	Serious[8]	Very low

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=1.99)
4. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=2.38)
5. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=3.81)
6. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=1.67)
7. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=12.48)
8. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=3.31)

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 internalising sub-scale at 12 weeks: assessed using the Strengths and Difficulties Questionnaire								
1 (Midgley 2019)	Parallel RCT	36	MD -1.3 (-3.9, 1.4)[1]	Not Serious	N/A	Not Serious	Serious[2]	Very low
Foster-carer reported internalising sub-scale at 24 weeks: assessed using the Strengths and Difficulties Questionnaire								
1 (Midgley 2019)	Parallel RCT	36	MD -2.1 (-4.9, 0.7)[1]	Not Serious	N/A	Not Serious	Serious[3]	Very low
Foster-carer reported externalising sub-scale at 12 weeks: assessed using the Strengths and Difficulties Questionnaire								
1 (Midgley 2019)	Parallel RCT	36	MD -0.2 (-2.5, 2.2)[1]	Not Serious	N/A	Not Serious	Very Serious[4]	Very low
Foster-carer reported externalising sub-scale at 24 weeks: assessed using the Strengths and Difficulties Questionnaire								
1 (Midgley 2019)	Parallel RCT	36	MD -0.8 (-3.5, 1.9)[1]	Not Serious	N/A	Not Serious	Serious[5]	Very low
Young person reported internalising score at 12 weeks: assessed using the Strengths and Difficulties Questionnaire								
1 (Midgley 2019)	Parallel RCT	36	MD 4.5 (0.8, 8.2)[1]	Very Serious[6]	N/A	Not Serious	Serious[7]	Very low
Young person reported internalising score at 24 weeks: assessed using the Strengths and Difficulties Questionnaire								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Midgley 2019)	Parallel RCT	36	MD 4.0 (0.4, 7.6)[1]	Very Serious[6]	N/A	Not Serious	Serious[8]	Very low
Young person reported externalising sub-scale at 12 weeks: assessed using the Strengths and Difficulties Questionnaire								
1 (Midgley 2019)	Parallel RCT	36	MD 0.6 (-2.0, 3.2)[1]	Very Serious[6]	N/A	Not Serious	Very Serious[9]	Very low
Young person reported externalising sub-scale at 24 weeks: assessed using the Strengths and Difficulties Questionnaire								
1 (Midgley 2019)	Parallel RCT	36	MD 0.4 (-2.2, 3.0)[1]	Very Serious[6]	N/A	Not Serious	Very Serious[10]	Very low

1. Adjusted for baseline SDQ and Foster Carer Reflective Function
2. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=1.7)
3. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=2.1)
4. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=2.0)
5. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=2.1)
6. 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.
7. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=2.3)
8. Downgrade 1 levels for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=1.7)

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

9. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (half the standard deviation of the control arm=1.9)
10. Downgrade 2 levels for very serious imprecision since confidence intervals crossed 2 lines of MID (half the standard deviation of the control arm=1.8)

Non-Violent Resistance Training vs Treatment As Usual

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
Foster-carer reported child internalising problems at postintervention: assessed using the CBCL								
1 (Van Holen 2018)	Parallel RCT	32	MD 1.54 [-1.48, 4.56]	Not Serious	N/A	Serious[1]	Serious[2]	Low
Foster-carer reported child internalising problems at 3 months: assessed using the CBCL								
1 (Van Holen 2018)	Parallel RCT	32	MD 1.11 [-2.10, 4.32]	Not Serious	N/A	Serious[1]	Serious[3]	Low
Foster-carer reported child externalising problems at postintervention: assessed using the CBCL								
1 (Van Holen 2018)	Parallel RCT	32	MD -2.25 [-7.05, 2.55]	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
Foster-carer reported child externalising problems at 3 months: assessed using the CBCL								
1 (Van Holen 2018)	Parallel RCT	32	MD -3.14 [-7.60, 1.32]	Not Serious	N/A	Serious[1]	Serious[5]	Low
Foster-carer reported child total problems at postintervention: assessed using the CBCL								
1 (Van Holen 2018)	Parallel RCT	32	MD -3.00 [-13.69, 7.69]	Not Serious	N/A	Serious[1]	Serious[6]	Low
Foster-carer reported child total problems at 3 months: assessed using the CBCL								
1 (Van Holen 2018)	Parallel RCT	32	MD -2.68 [-13.51, 8.15]	Not Serious	N/A	Serious[1]	Serious[7]	Low
Foster-carer reported coping ability at postintervention: assessed using the Nijmegen Parenting Situation Scale								
1 (Midgley 2019)	Parallel RCT	32	MD 0.97 [-1.74, 3.68]	Not Serious	N/A	Serious[1]	Serious[8]	Low
Foster-carer reported coping ability at 3 months: assessed using the Nijmegen Parenting Situation Scale								
1 (Midgley 2019)	Parallel RCT	32	MD -0.50 [-3.12, 2.12]	Not Serious	N/A	Serious[1]	Serious[9]	Low
Foster-carer reported problem severity at postintervention: assessed using the Nijmegen Parenting Situation Scale								

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality
1 (Midgley 2019)	Parallel RCT	32	MD 0.15 [-2.23, 2.53]	Not Serious	N/A	Serious[1]	Serious[10]	Low
Foster-carer reported problem severity at 3 months: assessed using the Nijmegen Parenting Situation Scale								
1 (Midgley 2019)	Parallel RCT	32	MD -1.47 [-3.82, 0.88]	Not Serious	N/A	Serious[1]	Serious[11]	Low
Foster-carer reported desire for change in parenting situation at postintervention: assessed using the Nijmegen Parenting Situation Scale								
1 (Midgley 2019)	Parallel RCT	32	MD 0.74 [-1.48, 2.96]	Not Serious	N/A	Serious[1]	Serious[12]	Low
Foster-carer reported desire for change in parenting situation at 3 months: assessed using the Nijmegen Parenting Situation Scale								
1 (Midgley 2019)	Parallel RCT	32	MD 0.45 [-1.73, 2.63]	Not Serious	N/A	Serious[1]	Serious[13]	Low
Foster-carer reported parenting burden at postintervention: assessed using the Nijmegen Parenting Situation Scale								
1 (Midgley 2019)	Parallel RCT	32	MD 0.13 [-2.57, 2.83]	Not Serious	N/A	Serious[1]	Serious[14]	Low
Foster-carer reported parenting burden at 3 months: assessed using the Nijmegen Parenting Situation Scale								
1 (Midgley 2019)	Parallel RCT	32	MD -0.87 [-3.52, 1.78]	Not Serious	N/A	Serious[1]	Serious[15]	Low

No. of studies	Study design	Sample size	Effect size (95% CI)	Risk of bias	Inconsistency	Indirectness	Imprecision	Quality

1. Downgrade one level for indirectness as the study was from Belgium
2. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=3.12)
3. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=3.26)
4. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=4.76)
5. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=5.05)
6. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=9.75)
7. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=10.6)
8. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=2.57)
9. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=2.44)
10. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=2.42)
11. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=2.35)
12. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=1.99)
13. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=1.92)
14. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=2.60)
15. Downgrade 1 level for serious imprecision since confidence intervals crossed 1 line of MID (half the standard deviation of the control arm=2.59)

Qualitative evidence

Experience of foster parents and facilitators regarding Incredible Years

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
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.	2	**No concerns** 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.	**No concerns**	**Moderate concerns** Only 2 studies contributed to this theme.	**Minor concerns** One study was from outside of the UK	Very Low
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	**No concerns**	**Serious concerns** Only one study contributed to this theme	**No concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
		more than one analyst used.				
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), more tailoring by age may be neccesary.	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
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 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	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
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 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 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	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
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 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.	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
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 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:	1	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	Very Low
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	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
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.						
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 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.	1	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	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	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
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 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	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
lack of mutuality.						
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.	1	**No concerns**	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	Very Low

Experience of looked after young people regarding Sibling Camp

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
Opportunities and special memories – Data showed that these participants found the sibling camps to be a fun experience. Often camp also enabled them to take part in activities that they had never done before. There was also a sense of pride from some young people that they achieved something in taking part in the activities. This often involved them overcoming nerves or fears, which seemed to have built their confidence and self-esteem. The activities not only boosted the confidence of some of the participants for others, it also provided important memories.	1	**Minor concerns** The study contributing to this theme was moderate risk of bias. This study had limitations in its selection of participants. No validation appears to have been performed.	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	**Very Low**
Relationship with staff – the staff team was caring and supportive, which was a view shared by several participants. The participants suggested staff were skilled in settling people into the camp and making people feel welcomed and safe. The staff team came from backgrounds in education and youth work, and their skills in direct work with children were valued by the participants. The staff team were also very consistent, with the same core group working at the camps since its inception in 2009; this consistency was recognized by the participants. The relationships with the staff group also seemed to extend beyond camp with the staff being contacted at the charities office to offer support. The consistent staff team was recognized by the participants as skilled in responding calmly to children and young people. They also presented in the data as being instrumental in supporting the relationships between siblings, which at times as with any sibling group could be challenging.	1	**Minor concerns** The study contributing to this theme was moderate risk of bias. This study had limitations in its selection of participants. No validation appears to have been performed.	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	**Very Low**
Getting on and building bonds – Rivalries and conflicts are well documented in the literature relating to siblings, and although the participants in this study were overwhelmingly positive about the camps, and the quality time it afforded them with their siblings, they did present how at times this	1	**Minor concerns** The study contributing to this theme was moderate risk of bias. This study had limitations in its	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	**Very Low**

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
involved its challenges. For some participants the camps seemed to strike an important balance between supervision and support from the staff with the space for the siblings to exercise their agency, share their feelings and thoughts with each other and strengthen their sibling bonds.		selection of participants. No validation appears to have been performed.				
The benefits of time with others who have a shared experience the data showed camps provided a safe supportive space for siblings to come together, have fun and build their bonds. However, data also revealed that camps provided another positive experience that the young people also valued and that was the ability to meet with others who had the same experience. Other participants felt that they could trust others who attended the camps, which, in turn, led to close friendships	1	**Minor concerns** The study contributing to this theme was moderate risk of bias. This study had limitations in its selection of participants. No validation appears to have been performed.	**No concerns**	**Serious concerns** Only 1 study contributed to this theme.	**No concerns**	**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	1	**No concerns**	**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
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.						
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 foster parents' relationships with clinicians,	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
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 specialized skills. The experts noted that TFC parents should have the capacity to identify when a youth may require clinical care	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
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	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
recipient, but also for the experienced TFC parent who is able to exercise this leadership and service.						
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, participants wanted to be informed in advance of impending departures, and, if possible, given the opportunity to meet with both workers, to facilitate transitions	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
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	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
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."						
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	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
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.						
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 issues: "I didn't know that he had it or	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
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 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	2	**No concerns** One study was low risk of bias, one was moderate risk of bias.	**No concerns**	**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
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.						
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
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	1	**No concerns**	**No concerns**	**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
efforts to treat her foster youth similarly to how she treated her biological children as a “mainstreaming” process.						
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 described by this foster parent, who saw substantial improvements in functioning in a youth she served.	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
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	**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

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
		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.*				
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 chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*	**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
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	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	**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
discretionary funds to meet a child's needs in a timely way.		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.*				
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'!	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 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	**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
		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.*				
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	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	**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
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.		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.*				
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.	1	**Serious concerns** Qualitative methods were not appropriate to evaluate effectiveness of the intervention in terms of likelihood of	**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
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.		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.*				
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	1	**Minor concerns** This study did not make its methods regarding	**No concerns**	**Serious concerns** Only one study	**Minor concerns** Study took place in USA	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
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.		coding and thematic analysis explicit.		contributed to this theme.		
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 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	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	**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
your face and they're shouting at you, and just walk away and let them calm down. (Foster carer)"		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 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	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
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, 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	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	**Minor concerns** Theme covered several issues with the parental daily report including the burden on caregivers, the overly negative focus on	**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
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 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.		apparent triangulation, respondent validation, or the use of more than one analyst.	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: "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	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,	**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
‘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)"		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: "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" 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)"	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
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: 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.	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
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	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth	**No concerns** This theme covers the reconciliation of the behavioural and	**Serious concerns** Only one study	**Minor concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
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)"		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.	attachment models in MDTFC	contributed to this theme	Data was likely collected prior to 2010	
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	1	**Serious concerns** Unclear how participants were recruited and selected. No in-depth description of the analysis	**Minor concerns** There was a lack of clarity regarding which approach had been most	**Serious concerns** Only one study	**Minor concerns** Data was likely collected prior to 2010	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
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 (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.		process. Unclear if sufficient data presented to support the findings. No apparent triangulation, respondent validation, or the use of more than one analyst.	successful for move on or step-down placements.	contributed to this theme		
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	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
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.						
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 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	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	**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
a huge amount off of me because it's not me who's saying it. That's absolutely been brilliant. (Foster carer)"		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 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	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
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 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.	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
Creating relationships with birth families. The Circle Program was felt to be more likely to promote	1	**Serious concerns**	**No concerns**	**Serious concerns**	**Minor concerns**	Very Low

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
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.		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.*	However, participation of birth families could be encouraged in one of several ways.	Only one study contributed to this theme.	Study took place in Australia	
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 chose not to take part. Focus group methods were not made explicit. *Thematic analysis process was not described explicitly.*	**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
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 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'!	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
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 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

Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
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 experienced trauma, it is important that they be assisted to heal and change to be available for the care of their child/young person.	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
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.	**No concerns**	**Serious concerns** Only one study contributed to this theme.	**Minor concerns** Study took place in Australia	Very Low

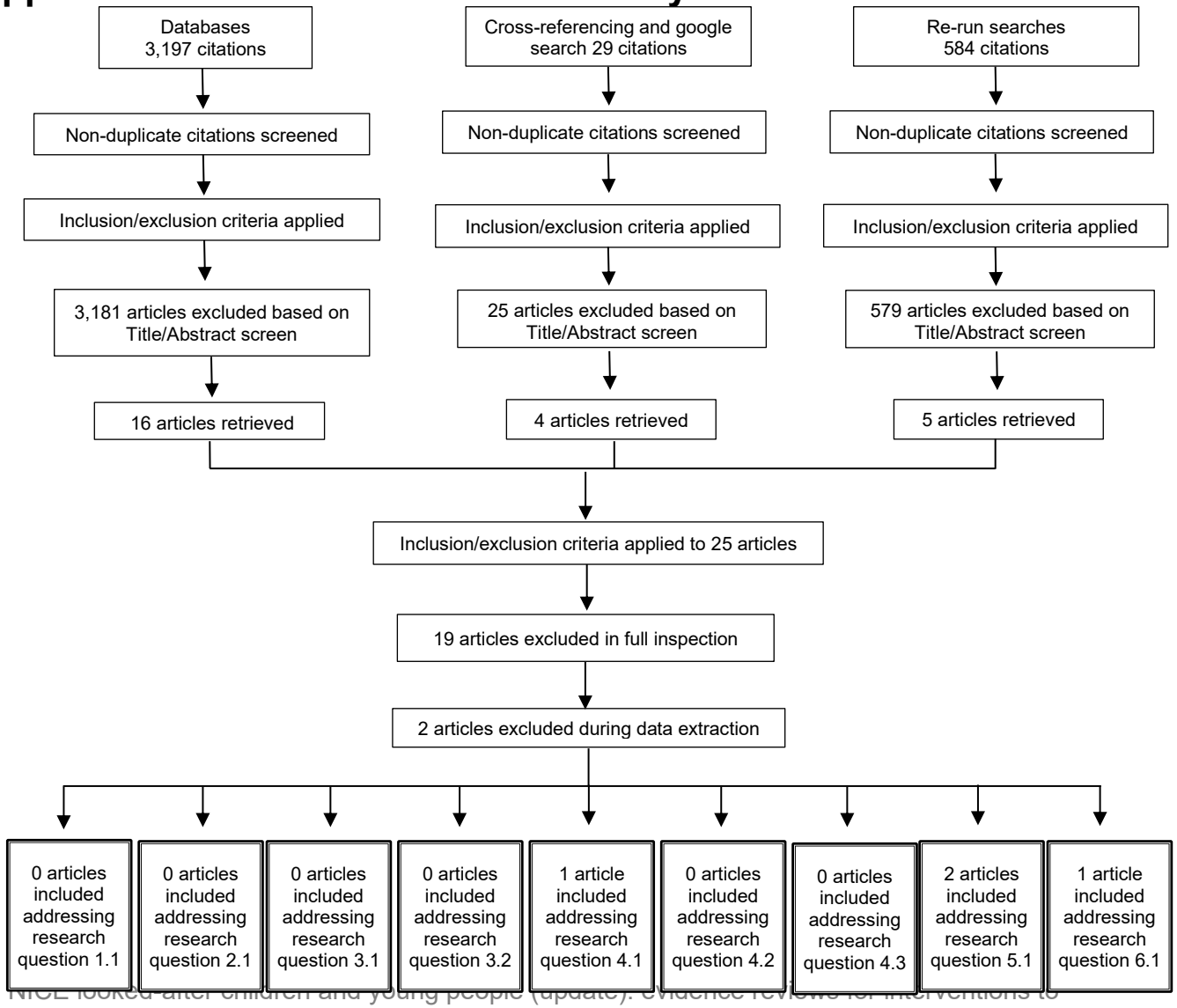
Theme	Studies	Methodological limitations	Coherence	Adequacy	Relevance	Confidence
		Thematic analysis process was not described explicitly.				
The hard and stressful work of fostering. How would foster parents and staff tolerate the intervention? - a feasibility worry was that the TFC-OY intervention 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 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.	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 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.	**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
		Focus group methods were not made explicit. *Thematic analysis 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, 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	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
implementation of TFC-OY should be delayed until new intervention components were developed to address emotion regulation problems.						

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

A costing analysis was conducted comparing the costs of MTFC and residential care in looked after adolescents with a history of persistent offending behaviour. Full details of this costing analysis are included in Evidence Review F.

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: XI. Intervention effects on caregiver-child interactions (infant affect manual, attachment variables). Monographs of the Society for Research in Child Development 73(3): 187-223	- Non-OECD country
(2008) The effects of early social-emotional and relationship experience on the development of young orphanage children: X. Effects of the interventions on caregiver-child Interactions during free play (PCERA). Monographs of the Society for Research in Child Development 73(3): 167-186	- Non-OECD country
(2008) The effects of early social-emotional and relationship experience on the development of young orphanage children: VII. Orphanage staff attitudes, perceptions, and feelings. Monographs of the Society for Research in Child Development 73(3): 108-123	- Non-OECD country
(2008) The effects of early social-emotional and relationship experience on the development of young orphanage children: VI. Caregiver behavior on the wards (home inventory). Monographs of the Society for Research in Child Development 73(3): 95-107	- Non-OECD country
(2008) The effects of early social-emotional and relationship experience on the development of young orphanage children. V. Evidence that the interventions were implemented as planned. Monographs of the Society for Research in Child Development 73(3): 84-94	- Non-OECD country
ACTRN12618001416280 (2018) BetterBonds: evaluation of an online attachment-based parenting program. Http://www.who.int/trialsearch/trial2.aspx? Trialid=actrn12618001416280	- Trial registration

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	- parent-focused outcomes
ALLEN Jeanette and VOSTANIS Panos (2005) The impact of abuse and trauma on the developing child: and evaluation of a training programme for foster carers and supervision social workers. Adoption and Fostering 29(3): 68-81	- no outcomes of interest (for consideration under a separate review question)
Allen, Brian, Timmer, Susan G, Urquiza, Anthony J et al. (2014) Parent-Child Interaction Therapy as an attachment-based intervention: Theoretical rationale and pilot data with adopted children. Children and Youth Services Review 47(part3): 334-341	- Unclear that population are LACYP *[adopted children]*
Attar-Schwartz, Shalhevet and Huri, Yisca (2019) Grandparental support and life satisfaction among adolescents in residential care. Children and Youth Services Review 96: 70-78	- Not an investigation of an intervention
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 evidence and RCT evidence available - non-UK
Balluerka, Nekane, Muela, Alexander, Amiano, Nora et al. (2014) Influence of animal-assisted therapy (AAT) on the attachment representations of youth in residential care. Children and Youth Services Review 42: 103-109	- quasi experimental evidence and RCT evidence available - non-UK
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

Study	Reason for exclusion
BARKER Richard and PLACE Maurice (2005) Working in collaboration: a therapeutic intervention for abused children. Child Abuse Review 14(1): 26-39	- Unclear that population are LACYP *[(33%) were the subject of care orders. No stratification for looked after children.]*
Barnett, Erin R, Cleary, Sarah E, Butcher, Rebecca L et al. (2019) Children's behavioral health needs and satisfaction and commitment of foster and adoptive parents: Do trauma-informed services make a difference?. Psychological trauma : theory, research, practice and policy 11(1): 73-81	- No outcome of interest reported *[Satisfaction and Commitment of Foster and Adoptive Parents]*
Bastiaanssen, Inge L. W, Delsing, Marc J. M. H, Kroes, Gert et al. (2014) Group care worker interventions and child problem behavior in residential youth care: Course and bidirectional associations. Children and Youth Services Review 39: 48-56	- observational evidence where RCT evidence was available Non-UK (Netherlands)
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	- Review checked for relevant citations
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
Bettmann, Joanna E and Tucker, Anita R (2011) Shifts in attachment relationships: A study of adolescents in wilderness treatment. Child & Youth Care Forum 40(6): 499-519	- uncontrolled before and after study and RCT evidence available - non-UK study (USA)
Blakeney, P, Thomas, C, Holzer, C et al. (2005) Efficacy of a short-term, intensive social skills training program for burned adolescents. Journal of burn care & rehabilitation 26(6): 546-555	- Unclear that population are LACYP

Study	Reason for exclusion
BLAIR, Katelyn; TOPITZES, James; MERSKY Joshua, P. (2019) Brief, group-based parent-child interaction therapy: examination of treatment attrition, non-adherence, and non-response. Children and Youth Services Review 106: 104463	- No outcome of interest reported implementation and adherence outcomes
Boden, Lauren J., Ennis, Robin Parks, Allen, Lester et al. (2020) Staff and Youth Buy-In Ideas for Initial and Sustainable Facility-Wide Positive Behavior Intervention and Supports Implementation within Residential and Juvenile Facilities. Remedial and Special Education 41(2): 88-98	- Intervention description/practice report - No outcome of interest reported implementation
Bowers, F E, Woods, D W, Carlyon, W D et al. (2000) Using positive peer reporting to improve the social interactions and acceptance of socially isolated adolescents in residential care: a systematic replication. Journal of applied behavior analysis 33(2): 239-42	- Case study [case series]
Brogan, K.M., Rapp, J.T., Edgemon, A.K. et al. (2019) Behavioral Skills Training to Increase Appropriate Reactions of Adolescent Males in Residential Treatment. Behavior modification: 145445519880837	case study
Brown, Suzanne (2014) Clinical update: A small service evaluation of a Solihull Approach foster carer training group pilot study. Practice: Social Work in Action 26(1): 37-52	- uncontrolled before and after study and RCT evidence available - UK based
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

Study	Reason for exclusion
Butler, Stephen, Baruch, Geoffrey, Hickey, Nicole et al. (2011) A randomized controlled trial of multisystemic therapy and a statutory therapeutic intervention for young offenders. Journal of the American Academy of Child and Adolescent Psychiatry 50(12): 1220-35e2	- Unclear that population are LACYP *[youth offenders]*
Bywater, Tracey Jane, Hutchings, Judith Mary, Gridley, Nicole et al. (2011) Incredible years parent training support for nursery staff working within a disadvantaged flying start area in Wales: A feasibility study. Child Care in Practice 17(3): 285-302	- Unclear that population are LACYP
Catay Z. and Kologlugil D. (2017) IMPACT OF A SUPPORT GROUP FOR THE CAREGIVERS AT AN ORPHANAGE IN TURKEY. Infant Mental Health Journal 38(2): 289-305	- Quai-experimental study and RCT evidence available - non-UK (Turkey)
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]*
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

Study	Reason for exclusion
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
CHAN Ko, Ling and et, al (2019) The effectiveness of interventions for grandparents raising grandchildren: a meta-analysis. Research on Social Work Practice 29(6): 607-617	- systematic review checked for citations
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 where RCT evidence is available - non-UK
Cole S.A. (2005) Infants in foster care: Relational and environmental factors affecting attachment. Journal of Reproductive and Infant Psychology 23(1): 43-61	- Not a relevant study design - Study does not contain a relevant intervention
COLEMAN, John (2019) "Helping teenagers in care flourish: what parenting research tells us about foster care". Child and Family Social Work 24(3): 354-359	- Review article but not a systematic review
COOLEY Morgan, E. and et, al (2019) A systematic review of foster parent preservice training. Children and Youth Services Review 107: 104552	- systematic review checked for citations
Cone, Jason C, Golden, Jeannie A, Hall, Cathy W et al. (2009) The effect of short-term cognitive-behavioral group therapy on adolescents with attachment difficulties. Behavioral Development Bulletin 15(1): 29-35	- Unclear that population are LACYP *[most participants were adopted]*

Study	Reason for exclusion
	- Non-UK setting - uncontrolled before and after study
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]
Cornell, Tonya and Hamrin, Vanya (2008) Clinical interventions for children with attachment problems. Journal of child and adolescent psychiatric nursing : official publication of the Association of Child and Adolescent Psychiatric Nurses, Inc 21(1): 35-47	- Systematic review checked for relevant citations
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	- uncontrolled before and after study where RCT evidence is available - non-UK [USA]
Crockenberg, Susan C (2008) How valid are the results of the St. Petersburg-USA Orphanage Intervention Study and what do they mean for the world's children?. Monographs of the Society for Research in Child Development 73(3): 263-270	- Non-OECD country - Book
Crosland, Kimberly A, Dunlap, Glen, Sager, Wayne et al. (2008) The effects of staff training on the types of interactions observed at two group homes for foster care children. Research on Social Work Practice 18(5): 410-420	- non-UK *[USA]* - Quasi-experimental study with available RCT data *[controlled interrupted time series]*

Study	Reason for exclusion
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 - uncontrolled before and after study and RCT data available
Curtis, Reagan and Pearson, Frances (2010) Contact with birth parents: Differential psychological adjustment for adults adopted as infants. Journal of Social Work 10(4): 347-367	- Survey extracted views (not true qualitative) - Not an intervention of interest
D'Oosterlinck, Franky, Goethals, Ilse, Broekaert, Eric et al. (2008) "Implementation and effect of life space crisis intervention in special schools with residential treatment for students with emotional and behavioral disorders (EBD)": Erratum. Psychiatric Quarterly 79(1): 81	- Not a relevant study design [Erratum]
Davidson-Arad, Bilha and Klein, Adva (2011) Comparative well being of Israeli youngsters in residential care with and without siblings. Children and Youth Services Review 33(11): 2152-2159	- Not an intervention of interest
Davies, Philippa, Webber, Martin, Briskman, Jacqueline A et al. (2015) Evaluation of a training programme for foster carers in an independent fostering agency. Practice: Social Work in Action 27(1): 35-49	- Uncontrolled BA study and RCT data available - UK
Delgado, Paulo, Carvalho, Joao M. S, Pinto, Vania S et al. (2017) Carers and professionals' perspectives on foster care outcomes: The role of contact. Journal of Social Service Research 43(5): 533-546	- Survey extracted views (not true qualitative) - Not an investigation of an intervention
DOosterlinck, Franky, Goethals, Ilse, Broekaert, Eric et al. (2008) Implementation and effect of life space crisis intervention in special schools with residential treatment for students with emotional and behavioral disorders (EBD). The Psychiatric quarterly 79(1): 65-79	- Unclear that population are LACYP *[children with emotional and behavioural disorders referred for residential treatment]*

Study	Reason for exclusion
Dorsey, Shannon, Farmer, Elizabeth M. Z, Barth, Richard P et al. (2008) Current status and evidence base of training for foster and treatment foster parents. Children and Youth Services Review 30(12): 1403-1416	- Systematic review checked for relevant citations
Downes, Martin J, Lakhani, Ali, Maujean, Annick et al. (2016) Evidence for using farm care practices to improve attachment outcomes in foster children: A systematic review. British Journal of Social Work 46(5): 1241-1248	- Systematic review checked for relevant citations
Dozier, Mary; Bick, Johanna; Bernard, Kristin (2011) Intervening With Foster Parents to Enhance Biobehavioral Outcomes Among Infants and Toddlers. Zero to three 31(3): 17-22	- Case study - Review article but not a systematic review - Intervention description/practice report
Dozier, Mary, Peloso, Elizabeth, Lewis, Erin et al. (2008) Effects of an attachment-based intervention on the cortisol production of infants and toddlers in foster care. Development and psychopathology 20(3): 845-59	- no outcome of interest
Dozier, Mary, Peloso, Elizabeth, Lindhiem, Oliver et al. (2006) Developing Evidence-Based Interventions for Foster Children: An Example of a Randomized Clinical Trial with Infants and Toddlers. Journal of Social Issues 62(4): 767-785	-poor reporting of behavioural outcomes
DRKS00006069 (2014) Consequences of Child Neglect and Maltreatment under Different Intervention Conditions (TP TREAT-Part). Http://www.who.int/trialsearch/trial2.aspx? Trialid=drks00006069	- trial registration
Edwards, M (2005) Evaluation of the application of the "Incredible Years" programme with foster carers of looked after children in Gwynedd.: 43pp	- RCT protocol

Study	Reason for exclusion
Embregts, Petri J. C. M (2002) Effects of video feedback on social behaviour of young people with mild intellectual disability and staff responses. International Journal of Disability, Development and Education 49(1): 105-116	- Case study *[Case series]*
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
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
Field, Clinton E, Nash, Heather M, Handwerk, Michael L et al. (2004) A modification of the token economy for nonresponsive youth in family-style residential care. Behavior modification 28(3): 438-57	- Case study *[case series]*
FINN Jerry and KERMAN Ben (2005) The use of online social support by foster families. Journal of Family Social Work 8(4): 67-85	- non-UK *[USA]* *- uncontrolled before and after study and RCT evidence available*
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	- non-UK - Quasi-experimental study

Study	Reason for exclusion
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, Gunnar, Megan R, Dozier, Mary et al. (2006) Effects of therapeutic interventions for foster children on behavioral problems, caregiver attachment, and stress regulatory neural systems. Annals of the New York Academy of Sciences 1094: 215-25	- Review article but not a systematic review
Fisher, Philip A and Stoolmiller, Mike (2008) Intervention effects on foster parent stress: associations with child cortisol levels. Development and psychopathology 20(3): 1003-21	- No outcome of interest reported *[No LACYP-specific outcomes.]*
Fossum, Sturla, Vis, Svein Arild, Holtan, Amy et al. (2018) Do frequency of visits with birth parents impact children's mental health and parental stress in stable foster care settings. Cogent Psychology 5(1)	- Not an investigation of an intervention
Fox, Paul and Avramidis, Elias (2003) An evaluation of an outdoor education programme for students with emotional and behavioural difficulties. Emotional & Behavioural Difficulties 8(4): 267-283	- no outcomes of interest for this review question
Galvin, E., O'Donnell, R., Skouteris, H. et al. (2019) Interventions and practice models for improving health and psychosocial outcomes of children and young people in out-of-home care: Protocol for a systematic review. BMJ Open 9(9): e031362	SR PROTOCOL
Gerring, Charyl E; Kemp, Susan P; Marcenko, Maureen O (2008) The Connections Project: a relational approach to engaging birth parents in visitation. Child welfare 87(6): 5-30	- non-UK

Study	Reason for exclusion
	[USA] - no outcomes of interest for this review question
Geenen, Sarah, Powers, Laurie E, Powers, Jennifer et al. (2013) Experimental study of a self-determination intervention for youth in foster care. Career Development and Transition for Exceptional Individuals 36(2): 84-95	- no outcomes of interest to this review question
GIBBONS, Naomi; BACON Alison, M.; LLOYD, Lisa (2019) Is Nurturing Attachments training effective in improving self-efficacy in foster carers and reducing manifestations of Reactive Attachment Disorder in looked after children?. Adoption and Fostering 43(4): 413-428	- uncontrolled before and after study
GILL, Amy and et, al (2020) Practitioner and foster carer perceptions of the support needs of young parents in and exiting out-of-home care: a systematic review. Children and Youth Services Review 108: 104512	- Systematic review Checked for citations
GOLDING Kim and PICKEN Wendy (2004) Group work for foster carers caring for children with complex problems. Adoption and Fostering 28(1): 25-37	- UK - Mixed methods - *uncontrolled before and after study and RCT evidence available*
GOLDING Kim, S. (2019) The development of DDP-informed parenting groups for parents and carers of children looked after or adopted from care. Adoption and Fostering 43(4): 400-412	- Intervention description/practice report - no methods described
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

Study	Reason for exclusion
	[group home] - No outcome of interest reported *[descriptive outcomes reported]* - Non-UK setting
Grupper, Emmanuel and Mero-Jaffe, Irit (2008) Residential staff's changing attitudes toward parents of children in their care: Rationale and healing effects on children, parents, and staff. Child & Youth Care Forum 37(1): 43-56	- *uncontrolled before and after study* - non-UK *[Israel]*
Guyon-Harris K.L., Humphreys K.L., Degnan K. et al. (2019) A prospective longitudinal study of Reactive Attachment Disorder following early institutional care: considering variable- and person-centered approaches. Attachment & human development 21(2): 95-110	- Non-OECD country
Haight, Wendy L, Mangelsdorf, Sarah, Black, James et al. (2005) Enhancing parent-child interaction during foster care visits: experimental assessment of an intervention. Child welfare 84(4): 459-81	- No outcome of interest reported *[application of taught behavioural strategies, coded parent-child interaction at a visit]*
HARRIS-WALLER, Jayne; BANGERH, Priya; DOUGLAS, Hazel (2019) An evaluation of the Solihull Approach Foster Carer Course. Practice: Social Work in Action 31(3): 219-229	- uncontrolled before and after study
HARTLEY Jane, EK and et, al (2019) CARE: The development of an intervention for kinship carers with teenage children. Qualitative Social Work 18(6): 926-943	"We do not have data to say if they were formal or informal kinship carers." unclear if looked after children

Study	Reason for exclusion
Hawk B.N., Mccall R.B., Groark C.J. et al. (2018) CAREGIVER SENSITIVITY AND CONSISTENCY AND CHILDREN'S PRIOR FAMILY EXPERIENCE AS CONTEXTS FOR EARLY DEVELOPMENT WITHIN INSTITUTIONS. Infant Mental Health Journal 39(4): 432-448	- Non-OECD country
Hegar, Rebecca L and Rosenthal, James A (2011) Foster children placed with or separated from siblings: Outcomes based on a national sample. Children and Youth Services Review 33(7): 1245-1253	- Not an intervention of interest
HERBERT Martin and WOOKEY Jenny (2007) The Child Wise Programme: a course to enhance the self-confidence and behaviour management skills of foster carers with challenging children. Adoption and Fostering 31(4): 27-37	- for consideration under another review question
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 considered for relevant citations
HILL-TOUT Jan and et al (2003) Training foster carers in a preventive approach to children who challenge: mixed messages from research. Adoption and Fostering 27(1): 47-56	- Data not reported in an extractable format *[no data presented]*
Hine, Kathleen M and Moore, Kevin J (2015) Family Care Treatment for dispersed populations of children with behavioral challenges: The design, implementation, and initial outcomes of an evidence-informed treatment. Children and Youth Services Review 58: 179-186	- non-UK *[USA]* - Observational *[uncontrolled BA study]*
Hoffman, Sue, Cummings, Anne L, Leschied, Alan W et al. (2004) Treating Aggression in High-Risk Adolescent Girls: A Preliminary Evaluation. Canadian Journal of Counselling 38(2): 59-73	*- uncontrolled before and after study where RCT data available*

Study	Reason for exclusion
	- non-UK *[USA]*
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 where RCT data is available*
HOLMES Ben and SILVER Miriam (2010) Managing behaviour with attachment in mind. Adoption and Fostering 34(1): 65-76	- Unclear that population are LACYP *[adoptive and foster parents, unclear how many of each included]*
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	- UK - Cost data only
HOOGEVEEN Collin E.; VOGELVANG Bas; RIGTER Henk (2017) Multidimensional family therapy for improving behavioral outcomes in adolescents referred to residential youth care. Residential Treatment for Children and Youth 34(1): 61-81	- Observational *[retrospective cohort]* - non-UK *[Netherlands]*

Study	Reason for exclusion
Hu, A., Van Ryzin, M.J., Schweer-Collins, M.L. et al. (2020) Peer Relations and Delinquency Among Girls in Foster Care Following a Skill-Building Preventive Intervention. Child maltreatment: 1077559520923033	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
Huefner, Jonathan C, Handwerk, Michael L, Ringle, Jay L et al. (2009) Conduct disordered youth in group care: An examination of negative peer influence. Journal of Child and Family Studies 18(6): 719-730	- Observational *[interrupted time series/uncontrolled before and after study]* - non-UK *[USA]*
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]*
Hughes, Dan (2004) An attachment-based treatment of maltreated children and young people. Attachment & human development 6(3): 263-78	- Intervention description/practice report
Humphreys, Cathy and Kiraly, Meredith (2011) High-frequency family contact: A road to nowhere for infants. Child & Family Social Work 16(1): 1-11	- to be considered under another review question

Study	Reason for exclusion
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
HUTCHINGS Judy (2013) Delivering the Incredible Years parent programme to foster carers in Wales: reflections from group leader supervision. Adoption and Fostering 37(1): 28-42	- to be considered under another review question
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
ISRCTN58581840 (2011) The Fostering Changes programme. Http://www.who.int/trialsearch/trial2.aspx? Trialid=isrctn58581840	- trial registration
IZZO Charles, V. and et, al (2020) Improving relationship quality in group care settings: the impact of implementing the CARE model. Children and Youth Services Review 109: 104623	- non-UK non-randomised study
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	- non-randomised controlled study - non-UK (USA)
Jones, Kevin M, Young, Mary M, Friman, Patrick C et al. (2000) Increasing peer praise of socially rejected delinquent youth: Effects on cooperation and acceptance. School Psychology Quarterly 15(1): 30-39	- Case study *[case series (3 participants)]*
Jonkman C.S., Bolle E.A., Lindeboom R. et al. (2012) Multidimensional treatment foster care for preschoolers: Early findings of an implementation in the Netherlands. Child and Adolescent Psychiatry and Mental Health 6: 38	- non-UK - Quasi-experimental study

Study	Reason for exclusion
Jonkman, Caroline S, Schuengel, Carlo, Lindeboom, Robert et al. (2013) The effectiveness of Multidimensional Treatment Foster Care for Preschoolers (MTFC-P) for young children with severe behavioral disturbances: study protocol for a randomized controlled trial. Trials 14: 197	- RCT protocol
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	- poor reporting of behavioural data
Kemmis-Riggs, Jacqueline; Dickes, Adam; McAloon, John (2018) Program Components of Psychosocial Interventions in Foster and Kinship Care: A Systematic Review. Clinical child and family psychology review 21(1): 13-40	- systematic review checked for relevant citations
KENRICK Jenny (2009) Concurrent planning: a retrospective study of the continuities and discontinuities of care, and their impact on the development of infants and young children placed for adoption by the Coram Concurrent Planning Project. Adoption and Fostering 33(4): 5-18	- to be considered for inclusion under another review question
Kerr, Laura and Cossar, Jill (2014) Attachment interventions with foster and adoptive parents: A systematic review. Child Abuse Review 23(6): 426-439	- systematic review checked for relevant citations
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	- no outcomes of interest
Kothari, Brianne H, McBeath, Bowen, Lamson-Siu, Emilie et al. (2014) Development and feasibility of a sibling intervention for youth in foster care. Evaluation and program planning 47: 91-9	- No outcome of interest reported *[fidelity outcomes]* - Survey extracted views (not true qualitative)

Study	Reason for exclusion
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]*
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]*
LAYBOURNE Gemma; ANDERSEN Jill; SANDS John (2008) Fostering attachments in looked after children: further insight into the group-based programme for foster carers. Adoption and Fostering 32(4): 64-76	- Mixed methods - Observational *[uncontrolled before and after study – however RCT evidence available]* - UK
Leathers, Sonya J, Spielfogel, Jill E, McMeel, Lorri S et al. (2011) Use of a parent management training intervention with urban foster parents: A pilot study. Children and Youth Services Review 33(7): 1270-1279	- Quasi-experimental *[NRCT]* - non-UK *[USA]*
Lecannelier, Felipe, Silva, Jaime R, Hoffmann, Marianela et al. (2014) Effects of an intervention to promote socioemotional development in terms of attachment security: a study in early institutionalization in Chile. Infant mental health journal 35(2): 151-9	- Quasi-experimental - Non-UK

Study	Reason for exclusion
Levy, Terry M and Orlans, Michael (2003) Creating and Repairing Attachments in Biological, Foster, and Adoptive Families. Attachment processes in couple and family therapy.: 165-190	- Book - Review article but not a systematic review
Linares, L Oriana, Li, MiMin, Shrout, Patrick E et al. (2007) Placement shift, sibling relationship quality, and child outcomes in foster care: a controlled study. Journal of family psychology : JFP : journal of the Division of Family Psychology of the American Psychological Association (Division 43) 21(4): 736-743	- Not an intervention of interest
Linares, Lourdes Oriana; Rhodes, Jennifer; Montalto, Daniela (2010) Perceptions of coparenting in foster care. Family process 49(4): 530-42	- Not an investigation of an intervention *[cross-sectional association study]*
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	- considered under another review question
Lindahl, Robert and Bruhn, Anders (2017) Foster children's experiences and expectations concerning the child-welfare officer role-Prerequisites and obstacles for close and trustful relationships. Child & Family Social Work 22(4): 1415-1422	- to be considered for inclusion under another review question
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
Luna, O.; Rapp, J.T.; Coon, J. (2020) Enhancing the Lives of Foster Youth with Behavioral Interventions. Pediatric Clinics of North America 67(3): 437-449	- Case study
Lynch, Frances L, Dickerson, John F, Saldana, Lisa et al. (2014) Incremental net benefit of early intervention for preschool-aged children with emotional and behavioral problems in foster care. Children and Youth Services Review 36: 213-219	- no outcomes of interest for this review question

Study	Reason for exclusion
Macdonald, G and Kakavelakis, I (2004) Helping foster carers to manage challenging behaviour: evaluation of a cognitive-behavioural training program for foster carers.	- Book
MADIGAN Sarah; PATON Kate; MACKETT Naomi (2017) The Springfield Project service: evaluation of a Solihull Approach course for foster carers. Adoption and Fostering 41(3): 254-267	- Observational *[uncontrolled before and after study]* - Mixed methods - UK
McBeath, Bowen, Kothari, Brianne H, Blakeslee, Jennifer et al. (2014) Intervening to improve outcomes for siblings in foster care: Conceptual, substantive, and methodological dimensions of a prevention science framework. Children and Youth Services Review 39: 1-10	- review paper checked for relevant citations
McNeil, Cheryl B, Herschell, Amy D, Gurwitch, Robin H et al. (2005) Training foster parents in parent-child interaction therapy. Education and Treatment of Children 28(2): 182-196	- non-UK *[USA]* - Observational *[uncontrolled before and after study]*
McRoy, Ruth G, Grotevant, Harold D, Ayers-Lopez, Susan et al. (2007) Open adoptions: Longitudinal outcomes for the adoption triad. Handbook of Adoption: Implications for Researchers, Practitioners, and Families.: 175-189	- Unclear that population are LACYP *[post adoption contact]*
McSherry, Dominic, Fargas Malet, Montserrat, Weatherall, Kerrylee et al. (2016) Comparing long-term placements for young children in care: Does placement type really matter?. Children and Youth Services Review 69: 56-66	- Not an intervention of interest

Study	Reason for exclusion
McWey, Lenore M, Acock, Alan, Porter, Breanne E et al. (2010) The impact of continued contact with biological parents upon the mental health of children in foster care. Children and Youth Services Review 32(10): 1338-1345	- Not an investigation of an intervention
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	- non-UK - Observational study
Messer, Erica Pearl, Greiner, Mary V, Beal, Sarah J et al. (2018) Child Adult Relationship Enhancement (CARE): A brief, skills-building training for foster caregivers to increase positive parenting practices. Children and Youth Services Review 90: 74-82	- no outcomes of interest to this review question
Melius, Patience, Swoszowski, Nicole Cain, Siders, Jim et al. (2015) Developing peer led check-in/check-out: A peer-mentoring program for children in residential care. Residential Treatment for Children & Youth 32(1): 58-79	-Case series
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
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
Muela, Alexander, Balluerka, Nekane, Amiano, Nora et al. (2017) Animal-assisted psychotherapy for young people with behavioural problems in residential care. Clinical psychology & psychotherapy 24(6): o1485-o1494	- non-randomised controlled trial - non-UK

Study	Reason for exclusion
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
Murray, Kathryn J, Sullivan, Kelly M, Lent, Maria C et al. (2019) Promoting trauma-informed parenting of children in out-of-home care: An effectiveness study of the resource parent curriculum. Psychological services 16(1): 162-169	- No outcome of interest reported *[caregiver knowledge and beliefs]*
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]*
NCT00056303 (2003) Mental Health Services for Foster and Adopted Children. Https://clinicaltrials.gov/show/nct00056303	- trial registration
NCT00239837 (2005) Prevention Program for Problem Behaviors in Girls in Foster Care. Https://clinicaltrials.gov/show/nct00239837	- trial registration
NCT00339365 (2006) Promoting Infant Mental Health in Foster Care. Https://clinicaltrials.gov/show/nct00339365	- trial registration

Study	Reason for exclusion
NCT00810056 (2008) Fostering Healthy Futures Efficacy Trial for Preadolescent Youth in Foster Care. Https://clinicaltrials.gov/show/nct00810056	- trial registration
NCT01726361 (2012) Multidimensional Treatment Foster Care for Adolescents. Https://clinicaltrials.gov/show/nct01726361	- trial registration
NCT03157895 (2017) A Trial of Connecting to Promote Foster Teen Well-Being. Https://clinicaltrials.gov/show/nct03157895	- trial registration
Nelson E.M. and Spieker S.J. (2013) Intervention effects on morning and stimulated cortisol responses among toddlers in foster care. Infant Mental Health Journal 34(3): 211-221	- no outcomes of interest to this review question
Nesmith, Ande (2015) Factors influencing the regularity of parental visits with children in foster care. Child & Adolescent Social Work Journal 32(3): 219-228	- Mixed methods - Observational *[association study]* - non-UK *[USA]*
NEWMAN Tony and MCDANIEL Benny (2005) Getting research into practice: healing damaged attachment processes in infancy. Child Care in Practice 11(1): 81-90	- Intervention description/practice report - Review article but not a systematic review
Nijhof, Karin S, Veerman, Jan W, Engels, Rutger C. M. E et al. (2011) Compulsory residential care: An examination of treatment improvement of individual and family functioning. Children and Youth Services Review 33(10): 1779-1785	- non-UK *[Dutch]* - Observational

Study	Reason for exclusion
	[interrupted time series]
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	- non-UK *[USA]* - Quasi-experimental *[Non-randomised controlled trial]*
NTR3899 (2013) Positive parenting in foster care. Http://www.who.int/trialsearch/trial2.aspx? Trialid=ntr3899	- trial registration
NTR4271 (2013) Supporting foster families with a hogh risk on unplanned termination of foster child placements. Http://www.who.int/trialsearch/trial2.aspx? Trialid=ntr4271	- trial registration
NTR4282 (2013) Supporting foster families with a high risk on unplanned termination. A Randomized Controlled Trial study (RCT) of Parent Management Training Oregon (PMTO). Http://www.who.int/trialsearch/trial2.aspx? Trialid=ntr4282	- trial registration
NTR5460 (2015) The online intervention The Growth Factory: developing a 'growth mindset'!. Http://www.who.int/trialsearch/trial2.aspx? Trialid=ntr5460	- trial registration
NUNNO Michael A.; HOLDEN Martha J.; LEIDY Brian (2003) Evaluating and monitoring the impact of a crisis intervention system on a residential child care facility. Children and Youth Services Review 25(4): 295-315	- Mixed methods - non-UK *[USA]*

Study	Reason for exclusion
	- Observational *[uncontrolled interrupted time series]*
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 - non-UK *[Swedish]*
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]*
PACIFICI Caesar and et al (2005) Foster parent college: interactive multimedia training for foster parents. Social Work Research 29(4): 243-251	- No outcome of interest reported *[parenting knowledge and intervention fidelity]*
Pacifici, Caesar, Delaney, Richard, White, Lee et al. (2006) Web-based training for foster, adoptive, and kinship parents. Children and Youth Services Review 28(11): 1329-1343	- No outcome of interest reported *[parent knowledge]*
Page, Terry J, Perrin, Frances A, Tessing, Jennifer L et al. (2007) Beyond treatment of individual behavior problems: An effective residential continuum of care for individuals with severe behavior problems. Behavioral Interventions 22(1): 35-45	- Unclear that population are LACYP

Study	Reason for exclusion
	[children and adolescents admitted to a behavior stabilization unit for treatment of severe behavior problems.]
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]*
PANTIN Sarah and FLYNN Robert (2007) Training and experience: keys to enhancing the utility for foster parents of the Assessment and Action Record from Looking After Children. Adoption and Fostering 31(4): 62-69	- No outcome of interest reported
PEMBERTON Camilla (2010) Restoring sibling bonds. Community Care 12810: 22-23	- Intervention description/practice report
Pithouse, Andrew, Hill-Tout, Jan, Lowe, Kathy et al. (2002) Training foster carers in challenging behaviour: A case study in disappointment?. Child & Family Social Work 7(3): 203-214	- UK - Observational *[uncontrolled BA study]*
Pratt, Megan E, Lipscomb, Shannon T, Schmitt, Sara A et al. (2015) The effect of head start on parenting outcomes for children living in non-parental care. Journal of Child and Family Studies 24(10): 2944-2956	- no outcomes of interest reported for this review question
Price, Joseph M, Roesch, Scott C, Walsh, Natalia Escobar et al. (2012) Effectiveness of the KEEP foster parent intervention during an implementation trial. Children and Youth Services Review 34(12): 2487-2494	- Quasi-experimental *[NRCT]* - non-UK

Study	Reason for exclusion
	[USA]
PUDDY Richard W. and JACKSON Yo (2003) The development of parenting skills in foster parent training. Children and Youth Services Review 25(12): 987-1014	- No outcome of interest reported *[Parenting skills and knowledge]*
PURVIS Karyn B. and et al (2007) The Hope Connection: a therapeutic summer day camp for adopted and at-risk children with special socio-emotional needs. Adoption and Fostering 31(4): 38-48	- Unclear that population are LACYP *[adopted children]* - Non-UK setting *[USA]*
Raby K.L., Freedman E., Yarger H.A. et al. (2019) Enhancing the language development of toddlers in foster care by promoting foster parents' sensitivity: Results from a randomized controlled trial. Developmental science 22(2): e12753	- no outcomes of interest for this review question
Raposa, Elizabeth B, Rhodes, Jean, Stams, Geert Jan J M et al. (2019) The Effects of Youth Mentoring Programs: A Meta-analysis of Outcome Studies. Journal of youth and adolescence 48(3): 423-443	- Systematic review checked for relevant citations
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]*
Ringle, Jay L, Thompson, Ronald W, Way, Mona et al. (2015) Reunifying families after an out-of-home residential stay: Evaluation of a blended intervention. Journal of Child and Family Studies 24(7): 2079-2087	- no outcomes of interest for this review question

Study	Reason for exclusion
Rodrigo, Maria Jose, Correa, Ana Delia, Maiquez, Maria Luisa et al. (2006) Family preservation services on the Canary Islands: Predictors of the efficacy of a parenting program for families at risk of social exclusion. European Psychologist 11(1): 57-70	- No outcome of interest reported
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]*
Rork, Kristine E and McNeil, Cheryl B (2011) Evaluation of foster parent training programs: A critical review. Child & Family Behavior Therapy 33(2): 139-170	- Systematic review checked for relevant citations
RUFF Saralyn C.; AGUILAR Rosana M.; CLAUSEN June Madsen (2016) An exploratory study of mental health interventions with infants and young children in foster care. Journal of Family Social Work 19(3): 184-198	- non-UK - quasi-experimental study
Ryan, Joseph P and Yang, Huilan (2005) Family Contact and Recidivism: A Longitudinal Study of Adjudicated Delinquents in Residential Care. Social Work Research 29(1): 31-39	- no outcomes of interest for this review question
Sanchirico, Andrew and Jablonka, Kary (2000) Keeping foster children connected to their biological parents: The impact of foster parent training and support. Child & Adolescent Social Work Journal 17(3): 185-203	- Observational *[association study]* - non-UK
Sasaki, Ginga and Noro, Fumiyuki (2017) Promoting verbal reports and action plans by staff during monthly meetings in a Japanese residential home. Behavioral Interventions 32(4): 445-452	- no outcomes of interest for this review question
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

Study	Reason for exclusion
SHOEMAKER Nikita, K. and et, al (2020) Positive parenting in foster care: testing the effectiveness of a video-feedback intervention program on foster parents' behavior and attitudes. Children and Youth Services Review 110: 104779	- no outcomes of interest
Scholte, E M and van der Ploeg, J D (2006) Residential treatment of adolescents with severe behavioural problems. Journal of adolescence 29(4): 641-54	- Unclear that population are LACYP *[residential treatment for youth with severe behavioural problems]*
Siaperas, Panagiotis and Beadle-Brown, Julie (2006) A case study of the use of a structured teaching approach in adults with autism in a residential home in Greece. Autism : the international journal of research and practice 10(4): 330-43	- Unclear that population are LACYP *[adults with autism]*
Silva, Isabel Simoes and da Fonseca Gaspar, Maria Filomena (2014) Supporting Portuguese residential child care staff: An exploratory study with the Incredible Years Basic Parent Programme. Psychosocial Intervention 23(1): 33-41	- No outcome of interest reported *[carer-specific outcomes in this non-randomised controlled trial]* - Not a relevant study design *[Non-randomised controlled trial with available RCT data]*
Silva, Isabel Simoes, da Fonseca Gaspar, Maria Filomena, Anglin, James P et al. (2016) Webster-Stratton Incredible Years Basic Parent Programme (IY) in child care placements: Residential staff carers' satisfaction results. Child & Family Social Work 21(2): 198-208	- Survey extracted views (not true qualitative) - No outcome of interest reported *[residential staff satisfaction questionnaire]*
Smith, Shelia M, Simon, Joan, Bramlett, Ronald K et al. (2009) Effects of positive peer reporting (PPR) on social acceptance and negative behaviors among peer-rejected preschool children. Journal of Applied School Psychology 25(4): 323-341	-non-UK (USA) - Quasi-experimental

Study	Reason for exclusion
SLOAN, Seaneen and et, al (2020) The effectiveness of Nurture Groups in improving outcomes for young children with social, emotional and behavioural difficulties in primary schools: an evaluation of Nurture Group provision in Northern Ireland. Children and Youth Services Review 108: 104619	- Unclear that population are LACYP
Solomon, David T; Niec, Larissa N; Schoonover, Ciera E (2017) The Impact of Foster Parent Training on Parenting Skills and Child Disruptive Behavior. Child maltreatment 22(1): 3-13	- Systematic review checked for relevant citations
Stadler, C (2016) An evidence-based intervention approach for girls with disruptive behavior disorders living in residential facilities. Journal of the american academy of child and adolescent psychiatry. Conference: 63rd annual meeting of the american academy of child and adolescent psychiatry. United states. Conference start: 20161024. Conference end: 20161029 55(10supplement1): S277-S278	- Conference abstract
Steele, Howard, Murphy, Anne, Bonuck, Karen et al. (2019) Randomized control trial report on the effectiveness of Group Attachment-Based Intervention (GABI©): Improvements in the parent-child relationship not seen in the control group. Development and psychopathology 31(1): 203-217	- Unclear that population are LACYP
Stelter, Rebecca L, Kupersmidt, Janis B, Stump, Kathryn N et al. (2018) Supporting mentoring relationships of youth in foster care: Do program practices predict match length?. American Journal of Community Psychology 61(34): 398-410	- non-UK *[USA]* - Observational *[cohort study]*
Sterkenburg, P. S, Janssen, C. G. C, Schuengel, C et al. (2008) The effect of an attachment-based behaviour therapy for children with visual and severe intellectual disabilities. Journal of Applied Research in Intellectual Disabilities 21(2): 126-135	- Case study *[case series of six participants]*

Study	Reason for exclusion
Strolin-Goltzman, Jessica, McCrae, Julie, Emery, Theresa et al. (2018) Trauma-informed resource parent training and the impact on knowledge acquisition, parenting self-efficacy, and child behavior outcomes: A pilot of the Resource Parent Curriculum Parent Management Training (RPC+). Journal of Public Child Welfare 12(2): 136-152	- Observational *[uncontrolled before and after study]* - non-UK *[USA]*
Strozier, Anne L, Elrod, Brent, Beiler, Pam et al. (2004) Developing a network of support for relative caregivers. Children and Youth Services Review 26(7): 641-656	-no outcomes of interest for this review question
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]*
Sullivan, Kelly M; Murray, Kathryn J; Ake, George S 3rd (2016) Trauma-Informed Care for Children in the Child Welfare System: An Initial Evaluation of a Trauma-Informed Parenting Workshop. Child maltreatment 21(2): 147-55	- No outcome of interest reported *[Caregiver knowledge and satisfaction scores]*
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
Timmer, Susan G, Urquiza, Anthony J, Zebell, Nancy et al. (2006) Challenging foster caregiver-maltreated child relationships: The effectiveness of parent-child interaction therapy. Children and Youth Services Review 28(1): 1-19	- non-UK *[USA]* - Observational

Study	Reason for exclusion
	[uncontrolled before and after study]
Treyvaud, Karli, Rogers, Susan, Matthews, Jan et al. (2009) Outcomes following an early parenting center residential parenting program. Journal of family nursing 15(4): 486-501	- Unclear that population are LACYP
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)
Uretsky, Mathew C and Hoffman, Jill A (2017) Evidence for group-based foster parent training programs in reducing externalizing child behaviors: A systematic review and meta-analysis. Journal of Public Child Welfare 11(45): 464-486	- Systematic review checked for relevant citations
Utsey, Shawn O, Howard, Alexis, Williams, Otis III et al. (2003) Therapeutic group mentoring with African American male adolescents. Journal of Mental Health Counseling 25(2): 126-139	- Case study *[case series]*
van CAMP Carole M. and et al (2008) Behavioral parent training in child welfare: evaluations of skills acquisition. Research on Social Work Practice 18(5): 377-391	- No outcome of interest reported *[parenting skills]* - Non-UK setting
van CAMP Carole M. and et al (2008) Behavioral parent training in child welfare: maintenance and booster training. Research on Social Work Practice 18(5): 392-400	- No outcome of interest reported *[skill acquisition]* - Non-UK setting

Study	Reason for exclusion
	[USA] - Case study *[case series]*
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 Holen, Frank; Vanderfaeillie, Johan; Omer, Haim (2016) Adaptation and Evaluation of a Nonviolent Resistance Intervention for Foster Parents: A Progress Report. Journal of marital and family therapy 42(2): 256-71	- non-UK *[Belgium]* - Observational *[uncontrolled before and after study]*
Van Horn, Patricia, Gray, Lili, Pettinelli, Beth et al. (2011) Child-parent psychotherapy with traumatized young children in kinship care: Adaptation of an evidence-based intervention. Clinical work with traumatized young children.: 55-74	- Book
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	- no outcomes of interest for this review question
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

Study	Reason for exclusion
	[USA]
Waid, Jeffrey and Wojciak, Armeda Stevenson (2017) Evaluation of a multi-site program designed to strengthen relational bonds for siblings separated by foster care. Evaluation and program planning 64: 69-77	- Observational *[uncontrolled before and after study]* - non-UK *[USA]*
WASHINGTON Gregory and et al (2007) African-American boys in relative care and a culturally centered group mentoring approach. Social Work with Groups 30(1): 45-69	- No outcome of interest reported
Waxman, Hersh C, Houston, W Robert, Profilet, Susan M et al. (2009) The long-term effects of the Houston Child Advocates, Inc., program on children and family outcomes. Child welfare 88(6): 23-46	- Quasi-experimental *[NRCT]* - non-UK *[USA]*
Weis, Robert; Wilson, Nicole L; Whitemarsh, Savannah M (2005) Evaluation of a voluntary, military-style residential treatment program for adolescents with academic and conduct problems. Journal of clinical child and adolescent psychology : the official journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53 34(4): 692-705	- Unclear population are LACYP *[looked after children appear to be a subset of this study with no subgroup analysis for this group]*
Westermark, Pia Kyhle, Hansson, Kjell, Olsson, Martin et al. (2011) Multidimensional treatment foster care (MTFC): Results from an independent replication. Journal of Family Therapy 33(1): 20-41	*- Participants were "at risk of immediate out-of-home placement" some participants in the control group were not entered into out-of-home care but were given interventions such as family therapy,*

Study	Reason for exclusion
	mentorship with non-professional volunteers and drug testing (n=3/15). *- non-UK [Sweden]*
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 - non-UK [USA]
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
Withington, Tania, Duplock, Ray, Burton, Judith et al. (2017) Exploring children's perspectives of engagement with their carers using factor analysis. Child abuse & neglect 63: 41-50	- Survey extracted views (not true qualitative)
Wright, Barry, Barry, Melissa, Hughes, Ellen et al. (2015) Clinical effectiveness and cost-effectiveness of parenting interventions for children with severe attachment problems: a systematic review and meta-analysis. Health technology assessment (Winchester, England) 19(52): vii-347	- Systematic review assessed for relevant citations
Wright, Barry, Hackney, Lisa, Hughes, Ellen et al. (2017) Decreasing rates of disorganised attachment in infants and young children, who are at risk of developing, or who already have disorganised attachment. A systematic review and meta-analysis of early parenting interventions. PloS one 12(7): e0180858	- Systematic review assessed for relevant citations
Wu, Q., Zhu, Y., Ogbonnaya, I. et al. (2020) Parenting intervention outcomes for kinship caregivers and child: A systematic review. Child Abuse and Neglect 106: 104524	- Systematic review

Study	Reason for exclusion
Zeanah, Charles H and Smyke, Anna T (2005) Building Attachment Relationships Following Maltreatment and Severe Deprivation. Enhancing early attachments: Theory, research, intervention, and policy.: 195-216	- Book
Zinn, Andrew (2017) Predictors of natural mentoring relationships among former foster youth. Children and Youth Services Review 79: 564-575	- Not an investigation of an intervention
Ziviani, Jenny, Feeney, Rachel, Cuskelly, Monica et al. (2012) Effectiveness of support services for children and young people with challenging behaviours related to or secondary to disability, who are in out-of-home care: A systematic review. Children and Youth Services Review 34(4): 758-770	- Systematic review assessed for relevant citations

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
Boyd, K.A.; Balogun, M.O.; Minnis, H.; (2016) Development of a radical foster care intervention in Glasgow, Scotland. Health promotion international 31(3): 665 - 673	- Exclude – costing analysis
DIXON, Jo (2011) How the care system could be improved. Community Care 17211: 16-17	- Exclude - not an economic evaluation

Study	Reason for exclusion
Holmes, L.; Ward, H.; McDermid, S. (2012) Calculating and comparing the costs of multidimensional treatment foster care in English local authorities. Children and Youth Services Review 34(11): 2141 - 2146	- Exclude – costing analysis
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
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
Sunseri, P. (2005) Children Referred to Residential Care: Reducing Multiple Placements, Managing Costs and Improving Treatment Outcomes. Residential Treatment for Children & Youth 22(3): 55 - 66	- Exclude – costing analysis

Appendix K – Research recommendations – full details

Research recommendation

No research recommendations were drafted for this review question

Appendix L – References

Other references

None

Appendix M – Other appendix

No additional information for this review question.