Appendices A–G

Appendices H to R can be found in separate files on the NCCMH and NICE websites:

Appendix H: Clinical evidence – search strategies

Appendix I: Health economic evidence – search strategies

Appendix J: Clinical evidence – study characteristics and quality checklists for associated factors

Appendix K: Clinical evidence – study characteristics and quality checklists for prediction and identification

Appendix L: Clinical evidence – study characteristics and quality for all intervention studies

Appendix M: Clinical evidence – excluded studies

Appendix N: Clinical evidence – GRADE tables

Appendix O: Clinical evidence – forest plots

Appendix P: Clinical evidence – flow diagrams

Appendix Q: Health economic evidence – completed health economics checklists

Appendix R: Health economic evidence – evidence tables

Abbreviations

5-HTTLPR (LL/SL/S/SS)	serotonin transporter gene (long long/short long/short/short short allele carrier variants)
AGREE	Appraisal of Guidelines for Research and Evaluation Instrument
ASSIA	Applied Social Sciences Index and Abstracts
CENTRAL	Cochrane Central Register of Controlled Trials
CI	confidence interval
DRD4	dopamine D4 receptor
DSM-IV-TR	Diagnostic and Statistical Manual of Mental Disorders - fourth edition, text revision
Embase	Excerpta Medica Database
GC	Guideline Committee
GRADE	Grades of Recommendation Assessment, Development and Evaluation
HR	hazard ratio
ICD(-10)	International Statistical Classification of Diseases and Related Health Problems (10th revised edition)
MEDLINE	Medical Literature Analysis and Retrieval System Online
NCCMH	National Collaborating Centre for Mental Health
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
NIHR	National Institute for Health Research
NSPCC	National Society for the Prevention of Cruelty to Children
OR	odds ratio
PsycINFO	Psychological Information Database
QUADAS	Quality Assessment of Diagnostic Accuracy Studies
RCT	randomised controlled trial
ROC	receiver operating characteristics
RR	risk ratio
SCIE	Social Care Institute for Excellence
SMD	standardised mean difference
SR	systematic review

Appendix A: Scope for the development of the clinical guideline

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

SCOPE

A.1 Guideline title

Children's attachment: attachment in children and young people who are adopted from care, in care or at high risk of going into care

A.1.1 Short title

Children's attachment

A.2 The remit

The Department of Health and the Department for Education have asked NICE: 'to develop guidance on the attachment and related therapeutic needs of looked-after children and children adopted from care.'

A.3 Need for the guideline

A.3.1 Epidemiology and background

a. The key feature of attachment is seeking out an attachment figure in the face of threat. The main function of attachment behaviour is the regulation of the infant or child's emotional state by the primary caregiver, particularly when they are distressed. This is known as the dyadic regulation of affect. Attachment is widely regarded to be a genetically engendered bio-behavioural feedback mechanism. However, attachment patterns, styles and problems in children and young people are influenced by the caring environment, especially for looked-after children and young people, those at high risk of being looked after (children or young people who are being considered for care or those subject to care proceedings, sometimes called being 'on the edge of care') and those adopted from care.
b. In 2012, there was a point prevalence of 59 looked-after children and young people per 10,000 in England, amounting to over 67,000 in total (excluding those placed under an agreed series of short-term placements). This figure has risen year on year for the past 5 years. Most fall into the 10- to 15-year age group, although younger groups have contributed to most of the increased numbers going into care over the past 5 years. The period prevalence for looked-after children in the year to 31 March 2012 was just over 93,000, with each remaining in care for an average of 261 days.

c. Boys account for 55% of all children in care. Although family problems (family dysfunction, acute family distress or parental illness) led to about a quarter of children going into care, child abuse and neglect were directly responsible for 62%.
d. Over 75% of looked-after children are classified as white, with black and black British (7%), mixed (9%) and Asian and Asian British (4%) accounting for most of the rest. About 60% of looked-after children are placed under either interim or full care orders; a further 29% are subject to voluntary agreements under section 20 of the Children Act 1989. Importantly, just over 3% of all looked-after children in England are unaccompanied and seeking asylum; the vast majority of these being boys aged 16 or over.
e. Of the 67,000 children and young people in care on 31 March 2012, 75% were in foster care, 4% were placed for adoption, 5% were in placements with their parents, 9% were in secure units, children's homes and hostels, and 1% were in a residential school. Two-thirds had been subject to a single placement in the preceding year, 22% had 2 placements and 11% had 3 or more.
f. In the same year, just over 28,000 children started to be looked after and about the same number stopped being looked after; with 37% returning to live with their parents or relatives, 13% being adopted and the rest living independently or under a variety of different circumstances, such as guardianship orders for foster parents or with other carers.
g. Children adopted from care are mainly adopted between the age of 1 and 4 years (74%) with a smaller number (21%) between the ages of 5 and 9 years. Adopted children have been in care mainly as a result of abuse and neglect (74%) or family dysfunction. Most (72%) adopted children will have been in care continuously for a period of between 1 and 3 years, and for most of these (65%), this period of care will have started in the first year of life.
h. Attachment is classified as ‘secure’, ‘insecure’ or ‘disorganised.’ This classification is stable over time in the absence of changes to caregiving because of the internal working models that develop as a result of early interactions between the parent and child.
i. The parents’ attachment status (secure, insecure or disorganised) is a significant predictor of the infant or child’s attachment classification, and the transmission of attachment styles, patterns and problems from one generation to the next is a function of a number of aspects of early caregiving, including sensitivity and attunement and parental reflective function. Recent research also suggests that some children are generally more susceptible to their early caregiving environments and that this may have a biological basis.
j. Children who receive responsive and attuned caregiving during the first 18 months of life develop secure attachments to their primary caregiver. These children can be comforted by their caregivers and use their caregiver as a secure base from which to explore their environment. It is estimated from population samples that around two-thirds of children are securely attached. These children have better outcomes than non-securely attached children across all domains, including social and emotional development, educational achievement and mental health.
k. Children who receive caregiving that is erratic or intrusive typically develop ‘insecure anxious-ambivalent’ attachments. These children maintain proximity to their caregiver by ‘up-regulating’ their emotional states: they become anxious and clingy and cannot be calmed when comfort is offered.
l. Children who receive caregiving that is rejecting or punitive typically develop ‘insecure anxious-avoidant’ attachment. These children maintain proximity to their caregiver by ‘down-regulating’ their emotional state: they appear to manage their own distress and not to need comfort.
m. Children who receive caregiving that is described as being ‘atypical’ and involves distorted parenting practices (including neglect, abuse and maltreatment) typically

develop disorganised attachments. This is usually in the context of parents being severely stressed (for example, those who are subject to domestic violence, engage in substance misuse or have significant mental health problems). These parents are typically both (psychologically) frightened and (behaviourally) frightening. Around 80% of children who suffer maltreatment are classified as having disorganised attachment. A disorganised classification is strongly predictive of later social and cognitive problems, and psychopathology.

n. Although particular types of attachment classification (especially disorganised attachment) may indicate a risk for later problems, these classifications do not represent a disorder.

o. In addition to the classification of attachment as secure, insecure or disorganised, a number of types of 'attachment disorders' have been defined. Reactive attachment disorder includes 2 types: inhibited and disinhibited (as defined in DSM-IV-TR and ICD-10). Both types of disorder, which can coexist, include markedly disturbed and developmentally inappropriate behaviours.

p. Children under 5 years who show signs of the inhibited type of reactive attachment disorder typically fail to initiate or respond to social interactions, and do not seek and/or accept comfort at times of distress or threat. Children with the disinhibited type show indiscriminate sociability and are excessively familiar with strangers.

q. Attachment disorders can occur in any setting, although they occur commonly as the result of institutional rearing in which there is a repeated change of primary caregiver and/or neglectful primary caregivers who persistently disregard the child's attachment needs. Looked-after children are clearly at greater risk in this respect than the wider population. In addition, they are also affected by being separated from the primary caregiver at home, regardless of whether the attachment to them was in itself good or problematic.

r. The limited evidence available about the attachment classification and/or prevalence of attachment disorders in looked-after children and young people and those adopted from care suggests that only 10% are securely attached to their biological parents. Many have experienced significant levels of abuse and neglect, which are strong predictors of both disorganised attachment and attachment disorder. The prevalence of mental health problems is significantly higher in looked-after children and young people and those adopted from care. About 42% of children aged 5–10 years who have been in care develop mental health problems compared with 8% who have not been in care; the figures for young people aged 11–15 years are 49% and 11% respectively.

A.3.2 Current practice

a. Current practice is divided into approaches to treatment, care and support that focus on:
    - the needs of children and young people with identified insecure or disorganised attachment or an attachment disorder, and
    - the needs of looked-after children and young people and those adopted from care.

b. Current approaches aim to prevent or treat problems that are likely to arise in looked-after children and young people or those at high risk of being looked-after. Examples of prevention programmes targeting those at high risk of being looked after include:
    - family drug and alcohol courts, which comprise a new approach to care proceedings when drug dependency in a parent is the major problem
    - family group conferencing, which is being used by 60 local authorities to plan care for children at high risk, and

- multisystemic therapy for young people (aged 11–17 years) and their families, when there is a risk of out-of-home placement (care or custody) and there has been poor engagement with services.

c. Examples of prevention and treatment interventions for looked-after children and young people include programmes explicitly aimed at supporting foster carers to meet the needs of those in their care. Examples include Fostering Changes Circle of Security, Attachment and Bio-behavioural Catch-up, the New Orleans Intervention, Multidimensional Treatment Foster Care (MTFC), Staying Put, and Social Pedagogy (aimed at local authority children's homes).

d. The alternative approach involves interventions that focus explicitly on children and young people with insecure or disorganised attachment or attachment disorders whether the child or young person is looked after or not. A range of such prevention and treatment programmes have been developed during the past 2 decades. Although their focus reflects the underpinning theoretical model, they are all primarily aimed at improving the child or young person's attachment classification (usually from disorganised/insecure to secure) or reactive attachment disorder. They do this primarily by improving the sensitivity and responsiveness of the caregiver to the child or young person's attachment needs. Attachment-specific interventions are either dyadic (involve both parent or caregiver and child or young person) or focus on the child or young person. They are often combined with other psychological or psychosocial interventions for the child or young person, the parent/caregiver or the family (see paragraph f below.

e. Dyadic treatments can be categorised according to the underpinning theory of change, namely:

- behavioural approaches, such as video interaction guidance
- psychotherapeutic approaches
- combined behavioural and psychotherapeutic approaches, such as Watch, Wait and Wonder, and
- programmes based on mentalisation, such as Minding the Baby and the Infant and Toddler Program.

f. Treatment plans for children and young people with insecure/disorganised attachment and attachment disorders may also include a range of other non-specific psychosocial interventions (for example, family therapy, individual psychological counselling, play therapy, special education services and parenting classes).

g. Medication may be used to address some of the symptoms and comorbidities commonly experienced by these children and young people (hyperactivity, anxiety, depression), but is not used to treat insecure/disorganised attachment or attachment disorder.

h. A range of so-called attachment therapies have also emerged over the past decade and include extreme forms of physical and coercive techniques (for example, holding therapy, re-birthing, rage-reduction and the Evergreen model). These treatments have resulted in a number of child deaths in the US. A US Task Force (2006) was critical of their use and they have also been strongly opposed by professional groups.

A.4 The guideline

A.4.1 Population

A.4.1.1 Groups that will be covered

a. Children and young people (aged 0–18 years) who are:

- adopted, including those adopted in England from abroad

- looked after children in the care system
- at high risk of being taken into care.

Special consideration will be given to the children of parents with mental health and substance misuse problems and to the needs of groups at increased social disadvantage such as: children and young people from black and minority ethnic groups, those who are unaccompanied immigrants or asylum seekers, and those with disabilities, including learning disabilities.

A.4.1.2 Groups that will not be covered

a. Children and young people with attachment problems or disorders who are not looked after, or who are not at risk of being looked after, or who have not been adopted from the care system (for example, children who are adopted by a relative or step-parent and children who are adopted abroad).
b. Adults over the age of 18 years.

A.4.2 Setting

a. Any setting in which professionals have contact with children and young people adopted from care, children and young people who are being looked after or those at high risk of being looked after. This will include:
    - a range of community settings, including fostering, residential and kinship care settings
    - primary care settings
    - secondary care settings
    - secure settings.
b. All educational settings in which children and young people who are adopted from care, who are being looked after or who are at high risk of being looked after, are educated.

A.4.3 Management

A.4.3.1 Key issues that will be covered

Prediction, identification and assessment

a. Identification of the factors (such as biological and environmental) associated with the development of attachment problems and disorders
b. The identification of factors (such as processes and arrangements) and experiences that may be associated with the risk of attachment-related problems and disorders.
c. Instruments, tools and methods used to predict, identify and assess attachment problems and disorders.

Prevention of attachment problems or disorders

d. Interventions aimed at the child or young person, the parents/caregivers or the family for the prevention of attachment problems.

Management of attachment and attachment disorders

e. Psychosocial and pharmacological interventions aimed at the child or young person, the parents/caregivers or the family for the management of attachment problems.

A.4.4 Main outcomes

a. Disorganised attachment and/or attachment disorders.
b. Behavioural, cognitive, educational and social functioning.
c. Wellbeing and quality of life.
d. Developmental status.
e. Quality of the relationship between the parent or caregiver and child or young person.
f. Quality of parenting and parenting behaviour.
g. Risk factors.
h. Criminal outcomes.
i. Experience of interventions and care processes.
j. The breakdown of fostering and adoption.

A.4.5 Draft review questions

A.4.5.1 Prediction, identification and assessment

a. What biological and environmental factors are associated with the later development of insecure/disorganised attachment or an attachment disorder in children and young people who are adopted from care, who are looked after and those who are at high risk of being looked after?
b. What process features for taking children and young people into local authority care are associated with an increase or decrease in the risk of developing insecure/disorganised attachment or an attachment disorder?
c. What features of arrangements made for children and young people in each looked-after setting and those related to adoption are associated with an increase or decrease in the risk of developing insecure/ disorganised attachment or an attachment disorder?
d. What instruments or tools can be used to predict insecure/disorganised attachment or an attachment disorder in children and young people who are adopted from care, who are looked after and those who are at high risk of being looked after? How valid and reliable are they?
e. What instruments or tools can be used to identify insecure/disorganised attachment or an attachment disorder in children and young people who are adopted from care, who are looked after and those who are at high risk of being looked after? How valid and reliable are they?
f. What instruments or tools can be used to assess insecure/disorganised attachment or an attachment disorder in children and young people who are adopted from care, who are looked after and those who are at high risk of being looked after? How valid and reliable are they?

A.4.5.2 Prevention of attachment problems or disorders

a. What interventions are effective in the prevention of insecure/disorganised attachment or attachment disorders in children and young people at high risk of being looked after? What are the risks associated with the each intervention?

b. What interventions are effective in the prevention of insecure/disorganised attachment or attachment disorders in children and young people in the early stages of being looked after? What are the risks associated with the each intervention?
c. What interventions are effective in the prevention of insecure/disorganised attachment or attachment disorders in children and young people who have been adopted from care? What are the risks associated with the each intervention?

A.4.5.3 Management of disorganised attachment and attachment disorders

a. What psychosocial interventions are effective for attachment problems and disorders in children and young people who have been adopted from care? What are the risks associated with each intervention?
b. What psychosocial interventions are effective for attachment problems and disorders in children and young people who are looked after in the care system? What are the risks associated with each intervention?
c. What psychosocial interventions are effective for attachment problems and disorders in children and young people who are at risk of being looked after? What are the risks associated with each intervention?
d. What pharmacological interventions are effective for attachment problems and disorders in children and young people? What are the risks associated with each intervention?

A.4.6 Economic aspects

Developers will take into account both clinical and cost effectiveness when making recommendations involving a choice between alternative interventions. A review of the economic evidence will be conducted and analyses will be carried out as appropriate. The preferred unit of effectiveness is the quality-adjusted life year (QALY), but a different unit of effectiveness may be used depending on the availability of appropriate clinical and utility data for children and young people with insecure/disorganised attachment or an attachment disorder. The costs considered will usually be only from an NHS and personal social services (PSS) perspective, although economic analyses will attempt to incorporate wider costs associated with the care of children and young people with attachment problems or disorders if appropriate cost data are available. Further detail on the methods can be found in The guidelines manual.

A.4.7 Status

A.4.7.1 Scope

This is the final scope.

A.4.7.2 Timing

The development of the guideline recommendations will begin in December 2013.

A.5 Related guidance

A.5.1 Published NICE guidance

- Antisocial behaviour and conduct disorders in children and young people. NICE clinical guideline 158 (2013).
- Looked-after children and young people. NICE public health guidance 28 (2010).
- Pregnancy and complex social factors. NICE clinical guideline 110 (2010).
- Alcohol-use disorders – preventing harmful drinking. NICE public health guidance 24 (2010).
- Reducing differences in the uptake of immunisations. NICE public health guidance 21 (2009).
- Social and emotional wellbeing in secondary education. NICE public health guidance 20 (2009).
- When to suspect child maltreatment. NICE clinical guideline 89 (2009).
- Schizophrenia (update). NICE clinical guideline 82 (2009).
- Borderline personality disorder. NICE clinical guideline 78 (2009).
- Antisocial personality disorder. NICE clinical guideline 77 (2009).
- Social and emotional wellbeing in primary education. NICE public health guidance 12 (2008).
- Attention deficit hyperactivity disorder. NICE clinical guideline 72 (2008).
- Antenatal and postnatal mental health. NICE clinical guideline 45 (2007).
- Behaviour change. NICE public health guidance 6 (2007).
- Interventions to reduce substance misuse among vulnerable young people. NICE public health guidance 4 (2007).
- Prevention of sexually transmitted infections and under 18 conceptions. NICE public health guidance 3 (2007).
- Drug misuse: psychosocial interventions. NICE clinical guideline 51 (2007).
- Drug misuse: opioid detoxification. NICE clinical guideline 52 (2007).
- Obsessive–compulsive disorder and body dysmorphic disorder. NICE clinical guideline 31 (2005).
- Depression in children and young people. NICE clinical guideline 28 (2005).
- Post-traumatic stress disorder (PTSD). NICE clinical guideline 26 (2005).
- Violence. NICE clinical guideline 25 (2005).
- Self-harm. NICE clinical guideline 16 (2004).
- Eating disorders.. NICE clinical guideline 9 (2004).

A.5.2 Published SCIE guidance

- Returning children home from public care. SCIE Research briefing 42 (2012).
- Experiences of children and young people caring for a parent with a mental health problem.. SCIE Research briefing 24 (2008).
- Working with challenging and disruptive situations in residential child care: sharing effective practice. SCIE Knowledge review 22 (2008).
- Fostering. SCIE Guide 7 (2004).
- Preventing teenage pregnancy in looked-after children. SCIE Research briefing 9 (2004).
- Promoting resilience in fostered children and young people.. SCIE Resource guide 6 (2004).
- Working with families with alcohol, drug and mental health problems. SCIE Report 2 (2003).

A.5.3 Centre for Excellence and Outcomes in Children's Services (C4EO) publications

- Vulnerable children: knowledge review 1. Improving educational outcomes for looked-after children (2010).
- Vulnerable children: knowledge review 2. Improving the emotional and behavioural health of looked-after children and young people (2010).
- Vulnerable children: knowledge review 3. Increasing the numbers of care leavers in 'safe settled accommodation' (2010).

A.5.4 NICE Guidance under development

NICE is currently developing the following related guidance (details available from the NICE website):

- Challenging behaviour and learning disabilities. NICE clinical guideline. Publication date to be confirmed.

A.6 Further information

Information on the guideline development process is provided in the following documents, available from the NICE website:

- How NICE clinical guidelines are developed: an overview for stakeholders the public and the NHS
- The guidelines manual.

Information on the progress of the guideline will also be available from the NICE website.

Appendix B: Declarations of interests by Guideline Committee members

With a range of practical experience relevant to children's attachment in the GC, members were appointed because of their understanding and expertise in healthcare for people with attachment difficulties and support for their families/carers, including: scientific issues; health research; the delivery and receipt of healthcare, along with the work of the healthcare industry; and the role of professional organisations and organisations for people with attachment difficulties and their families/carers.

To minimise and manage any potential conflicts of interest, and to avoid any public concern that commercial or other financial interests have affected the work of the GC and influenced guidance, members of the GC must declare as a matter of public record any interests held by themselves or their families which fall under specified categories (see below). These categories include any relationships they have with the healthcare industries, professional organisations and organisations for children and young people with attachment difficulties and their families/carers.

Individuals invited to join the GC were asked to declare their interests before being appointed. To allow the management of any potential conflicts of interest that might arise during the development of the guideline, GC members were also asked to declare their interests at each GC meeting throughout the guideline development process. The interests of all the members of the GC are listed below, including interests declared prior to appointment and during the guideline development process.

B.1 Categories of interest

- Paid employment
- Personal pecuniary interest: financial payments or other benefits from either the manufacturer or the owner of the product or service under consideration in this guideline, or the industry or sector from which the product or service comes. This includes holding a directorship or other paid position; carrying out consultancy or fee paid work; having shareholdings or other beneficial interests; receiving expenses and hospitality over and above what would be reasonably expected to attend meetings and conferences.
- Personal family interest: financial payments or other benefits from the healthcare industry that were received by a member of your family.
- Non-personal pecuniary interest: financial payments or other benefits received by the GC member's organisation or department, but where the GC member has not personally received payment, including fellowships and other support provided by the healthcare industry. This includes a grant or fellowship or other payment to sponsor a post, or contribute to the running costs of the department; commissioning of research or other work; contracts with, or grants from, NICE.
- Personal non-pecuniary interest: these include, but are not limited to, clear opinions or public statements you have made about individuals with attachment difficulties, holding office in a professional organisation or advocacy group with a direct interest in children's attachment, other reputational risks relevant to children's attachment.

Guideline Committee – declarations of interest	
Professor Peter Fonagy	
Employment	Freud Memorial Professor of Psychoanalysis, University College London; Chief Executive, The Anna Freud Centre, London
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	2 adopted children
Non-personal non-pecuniary interest	None
Action taken	None
Professor Jane Barlow	
Employment	Professor of Public Health in Early Years, University of Warwick
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Non-personal non-pecuniary interest	None
Action taken	None
Sara Barratt	
Employment	Team Manager – Fostering, Adoption and Kinship Care Team, Tavistock and Portman NHS Trust
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action taken	None
Mr Tony Clifford	
Employment	Head teacher Virtual School Children in Care – Children and Young People's Services, Stoke on Trent, Staffordshire
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	Member of Institute for Recovery from Childhood Trauma; Member of Virtual Head's Action research group, working with other Virtual School Heads and Bath Spa University ; Advocated inclusion of an attachment module within the Initial Teacher Training curriculum; As part of a Virtual Heads expert group, works closely with training providers including Kate Cairn's Associates, CAMHS and other professionals. Schools pay for training and the Virtual School may add top-up funding to further support.
Action taken	None
Professor Pasco Fearon	
Employment	Professor of Development Psychology, University College London

Guideline Committee – declarations of interest	
Personal pecuniary interest	A one-off financial payment from Shire for a workshop on attachment at a London conference, March 2014
Personal family interest	None
Non-personal pecuniary interest	Research grant from the NSPCC
Personal non-pecuniary interest	Executive Board Member of the Society for Emotion and Attachment Studies; Scientific Consultant to the Foundation Years Action Group
Action taken	None
Dr Danya Glaser	
Employment	Consultant Child and Adolescent Psychiatrist, Great Ormond Street Hospital for Children NHS Trust
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	Co-author of Understanding Attachment and Attachment Disorders: Theory, Evidence and Practice; author on NIHR Health Technology Assessment Report on 'A systematic review and meta-analysis of the clinical and cost-effectiveness of parenting interventions for children with severe attachment difficulties'
Action taken	None
Ms Judith James	
Employment	Director of Therapeutic Practice and Head of Fostering, Halliwell
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	Director of Therapeutic Practice, to an independent child-care provider, to children in the looked-after system
Personal non-pecuniary interest	Director/Trustee of British Association of Play Therapists
Action taken	None
Miss Áine Rose Kelly	
Employment	Care-leaver
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	Wellcome Trust grant
Personal non-pecuniary interest	Conducted research on the attachment of looked-after children and the impact upon eating behaviour in adolescence; PhD on looked-after children in progress; Fostering panel for Buckinghamshire
Action taken	None
Mr Scott King	
Employment	Care-leaver
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action taken	None
Mrs June Leat	
Employment	Carer representative

Guideline Committee – declarations of interest	
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action taken	None
Mr Paul Mitchell	
Employment	Clinical Lead, Hindley Young Offenders Institute Mental Health Team
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action taken	None
Ms Clare Morgan	
Employment	Carer representative
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action taken	None
Action Taken	None
Mrs Rosemarie Roberts	
Employment	National Implementation Service, Evidence Based Interventions for Children Looked After or on the Edge of Care or Custody
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	Director of a service responsible for training and consultation on interventions including multidimensional foster care, initially funded by the Department for Education
Personal non-pecuniary interest	None
Action taken	None
Dr Kenny Ross	
Employment	Consultant Adolescent Forensic Psychiatrist and Named Doctor for Safeguarding Children, Greater Manchester West NHS Mental Health Foundation Trust
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action taken	None
Professor Stephen Scott	
Employment	Professor of Child Health and Behaviour, Institute of Psychiatry, London; Consultant Child and Adolescent Psychiatrist and Head of the National Adoption and Fostering Service, Maudsley Hospital
Personal pecuniary interest	None

Guideline Committee – declarations of interest	
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action taken	None
Professor David Shemmings	
Employment	Professor of Child Protection research, University of Kent; Visiting Professor of Child Protection Research, Royal Holloway, University of London
Personal pecuniary interest	Provider of training in attachment and child protection
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	Author of 'Understanding Disorganised Attachment' and 'Assessing Disorganised Attachment Behaviour'
Action taken	None
Dr Miriam Silver	
Employment	Consultant Child and Family Clinical Psychologist, LifePsychol Ltd; Clinical Director, Keys Childcare Group, Milton Keynes
Personal pecuniary interest	Director of LifePsychol Ltd, a small company providing clinical psychology services; Director of Evolving Families Ltd; Clinical Director to Keys Childcare Group, a provider of residential care for children
Personal family interest	None
Non-personal pecuniary interest	Research grant from the Health Foundation paid through Milton Keynes Hospital Trust
Personal non-pecuniary interest	Author of a book explaining current knowledge about attachment relationships and their applicability to looked after and adopted children
Action taken	None
Employment	None
Dr Doug Simkiss	
Employment	Consultant Paediatrician and Clinical Director, Birmingham Community Healthcare NHS Trust
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	NIHR Programme Development grant awarded to look at young people in care with mental health concerns
Personal non-pecuniary interest	None
Action taken	None
Employment	None
Professor Harriet Ward	
Employment	Professor of Child and Family Research, Department of Social Sciences, Loughborough University
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action taken	None
Employment	None

Guideline Committee – declarations of interest	
NCCMH GC members	
Mrs Eva Gautam-Aitken	
Employment	Project Manager, NCCMH
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	Nepalese Doctors Association, Executive Committee Member (family member)
Action Taken	None
Professor Tim Kendall	
Employment	Director, NCCMH Medical Director, Sheffield Health and Social Care Trust Consultant Adult Psychiatrist
Personal pecuniary interest	Grant holder for £1.44 million per year (approximately) from NICE for guidelines work. Work with NICE International. Undertake some research into mental health, and the mental health workforce for the Department of Health, Royal College of Psychiatrists and the Academy of Medical Royal Colleges.
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action taken	None
Ms Maryla Moulin	
Employment	Project Manager, NCCMH
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action Taken	None
Ms Christina Loucas	
Employment	Research Assistant, NCCMH
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action Taken	None
Dr Leanne Saxon	
Employment	Systematic Reviewer, NCCMH
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None

Guideline Committee – declarations of interest	
Personal non-pecuniary interest	None
Mr Eric Slade	
Employment	Health Economist, NCCMH
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action Taken	None
Ms Sarah Stockton	
Employment	Senior Information Scientist, NCCMH
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action Taken	None
Ms Iona Symington	
Employment	Research Assistant, NCCMH
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action Taken	None
Dr Clare Taylor	
Employment	Senior Editor, NCCMH
Personal pecuniary interest	None
Personal family interest	None
Non-personal pecuniary interest	None
Personal non-pecuniary interest	None
Action Taken	None

Appendix C: Special advisors to the Guideline Committee

Those who acted as advisors on specialist topics or have contributed to the process by meeting the Guideline Committee:

Professor Judy Sebba, Director of the Rees Centre for Research in Fostering and Education, Department of Education, University of Oxford

Appendix D: Stakeholders who submitted comments in response to the consultation draft of the guideline

Adoption UK
Association of Child Psychotherapists
Bath Spa University, and Bath and North East Somerset Local Authority (joint submission)
British Association for Adoption and Fostering
British Psychological Society
Department for Education and Department of Health (joint response)
Family Futures
Institute of Health Visiting
Institute of Recovery from Childhood Trauma
Lancashire Care NHS Foundation Trust
NHS England
Northamptonshire County Council
Northumbria University
Nottinghamshire County Council
Nottinghamshire Healthcare NHS Foundation Trust
PAC-UK
Parent Infant Partnership UK
Psychology Associates
Research in Practice
Royal College of General Practitioners
Royal College of Nursing
Royal College of Paediatrics and Child Health
Royal College of Psychiatrists
Royal College of Surgeons
Surrey & Borders Partnership NHS Foundation Trust
Tavistock Centre for Couple Relationships
The POTATO (Parents of Traumatised Adopted Teens Organisation) Group
University of Glasgow

Appendix E: Researchers contacted to request information about unpublished or soon-to-be published studies

Professor Marian J. Bakermans-Kranenburg

Professor Johanna Bick

Dr Lori Burrell

Professor Mark Chaffin

Professor Dante Cicchetti

Professor Anne Duggan

Professor Dana Johnson

Professor Femmi Juffer

Dr Susan Landry

Dr John M Love

Assistant Professor Susan Love

Dr Greg Moran

Professor Lori Roggman

Professor Alan Rushton

Professor Stephen Scott (GC member)

Appendix F: Analytical framework, review questions and protocols

F.1 Analytical framework

F.2 Review questions

	Children's Attachment review questions
1.	What familial biological and environmental factors are associated with the development of attachment difficulties in children and young people?
2.	What process features for taking children and young people into local authority care are associated with an increase or decrease in the risk of developing or worsening attachment difficulties?
3.	What features of arrangements made for children and young people in each looked-after setting (residential, fostering, kinship care, adoption), secure and education settings are associated with an increase or decrease in the risk of developing or worsening attachment difficulties?
4.	What measurements/tools can be used to predict children and young people at risk of developing attachment difficulties? How valid and reliable are they?
5.	What measurements/tools can be used to identify/assess attachment difficulties in children and young people? How valid and reliable are they?
6.	What interventions are effective in the prevention of attachment problems in children and young people at high risk of being looked-after? What are the adverse effects associated with the each intervention?
7.	What interventions are effective in the prevention of attachment difficulties in children and young people being looked-after? What are the adverse effects associated with each intervention?
8.	What interventions are effective in the prevention of attachment difficulties in children and young people who have been adopted from care? What are the adverse effects associated with each intervention?
9.	What psychological interventions are effective in the management of children and young people on the edge of care with attachment difficulties? What are the adverse effects associated with each intervention?
10.	What psychological interventions are effective in the management of children and young people in care with attachment difficulties? What are the adverse effects associated with each intervention?
11.	What psychological interventions are effective in the management of children and young people adopted from care with attachment difficulties? What are the adverse effects associated with each intervention
12.	What pharmacological interventions are effective in the treatment of children and young people with attachment difficulties? What are the adverse effects associated with each intervention?

F.3 Review protocols

Familial biological and environmental factors

Topic	Prediction, identification and assessment
Review question 1	What familial biological and environmental factors are associated with the development of attachment difficulties in children and young people?
Objectives	To identify familial biological and environmental risk factors
Population	Children and young people (aged 0–18 years) with attachment difficulties. Including those who as a result of attachment difficulties: • warrant health care intervention • have functional impairment. Setting for environmental and genetic risk factors: • children in the family home • children in care • children who are adopted. Strata: • pre-school (≤4 years) • primary school (>4 to 11 years) • secondary school (>11 to 18 years).
Exclude	• Children and young people who are adopted from outside of the care system. • Children who are looked after on a planned temporary basis and subsequently return home. Exclude risk factors: • gender • low birth weight infants • irritable babies.

Risk factors may include	Children with the following:
	• gene expression, for example:
	  ○ 7-repeat allele on the dopamine D4 receptor (DRD4) gene
	  ○ -521 C/T promoter polymorphisms
	  ○ serotonin transporter gene (5-HTTLPR, SS/SL versus LL genotype).
	
	Environmental risk factor examples:
	• children who have been or are at risk of being maltreated
	• children with disabilities (learning/physical)
	• parents in prison
	• adolescent mothers
	• frightening or fearful behaviour by the caregiver
	• marital discord
	• parents with unresolved and early loss or trauma
	• parents who have mental health (that is, depression/substance misuse) problems

Topic	Prediction, identification and assessment
	• families at social disadvantage (for example, living in poverty) • parents who have been in care themselves and/or have attachment difficulties • parents who had been maltreated • parents have substance abuse disorder (alcohol or drugs).
Comparison	Children not exposed to risk factor
Critical outcomes	Association between risk factor and attachment difficulties
Important, but not critical outcomes	Association between risk factors and the following: • behavioural, cognitive, educational and social functioning. • wellbeing and quality of life • developmental status • criminal outcomes • parenting attitudes/behaviour • placement stability.
Study design	• Individual patient data meta-analysis • Systematic reviews • RCTs • Observational non-RCT studies. Environmental: To determine whether a particular factor accurately predicts attachment difficulties or attachment disorder, large-scale prospective studies are required that clearly define the risk factor under question and assesses attachment difficulties using a well-validated diagnostic tool. The study must have adjusted for potential confounders. Results from a univariate analysis will not be included. It is important to note that studies that use a simple correlational design simply show that there is a link between factor and outcome but cannot establish whether the factor plays any causal role in the onset of the disorder.
Include unpublished data?	Unpublished data will only be included where a full study report is available with sufficient detail to properly assess the risk of bias. Authors of unpublished evidence will be asked for permission to use such data, and will be informed that summary data from the study and the study's characteristics will be published in the full guideline.
Restriction by date?	No
Minimum sample size	N=20 for primary studies only.
Study setting	For environmental risk factors: in family home and in-care including adoption. For genetic risk factors, any setting will be included.
Search strategy	The databases to be searched include: • CENTRAL • Embase • MEDLINE • PsycINFO • Social Care Online • ChildData

Topic	Prediction, identification and assessment
	• ASSIA • British Education Index • Social Services Abstracts. Types of studies to be included: • IPD • SR • RCT • observational studies. Studies will be restricted to English language only. Conference abstracts will be excluded unless there are no other studies available for a particular outcome or question.
Searching other resources	

The review strategy	Reviews:
	Cochrane reviews will be quality assessed and presented if deemed relevant and important.
	
	Data analysis:
	For genetic risk factors:
	Where appropriate, meta-analysis using a random-effects model will be used to combine results from similar studies. Alternatively, a narrative synthesis will be used.
	
	For environmental risk factors:
	Results from risk factor studies are often not combined because different confounders are used.
	
	The adjusted numbers reported in the paper will be used. Unadjusted data will not be used.
	
	The data will be presented in text as either:
	• adjusted OR, RR, HR (dichotomous variables)
	• adjusted regression r2 or β (continuous variables).
	
	For observational cohort studies, the quality of the outcome starts at very low quality and will be upgraded if the studies included one of the following:
	• for continuous outcomes the sample size was ≥400 and for dichotomous outcomes the sample size was ≥300 events.
	• they adjusted the outcome for confounders
	• no risk of bias or indirectness based on the criteria of:
	  ○ generalisability of the population
	  ○ the degree of missing data
	  ○ if the outcome was measured using a valid or reliable tool
	  ○ if the risk factor was measured adequately
	  ○ appropriate statistics were used.

<table>
<tr><th>Topic</th><th>Prediction, identification and assessment</th></tr>
<tr><td></td><td>
For systematic reviews the quality will be assessed using the following criteria:

how relevant the data was for the review
studies are relevant to the guideline
literature search is rigorous
study quality is assessed
adequate description of the methods

For cross-sectional studies included in the genetic risk factor reviews, the outcome will be downgraded if:

they did not adjust for confounders
heterogeneity was detected
imprecision (see definition)
indirectness in population.

The data was upgraded if they adjusted for confounders, the effect size was RR >2 or <0.5 or very large RR >5 or <0.2 or a dose response was detected.

Criteria for clinical evidence statements:
Imprecise= 95% CI crosses both line of no effect and measure of appreciable benefit or harm (SMD -0.5/0.5 or RR 0.75/1.25).
Clinical effectiveness = SMD >0.2, RR <0.75 or >1.25 (please refer to absolute numbers below).

<table>
<tr><th>Statement</th><th>Precision criteria</th><th>Effect size criteria</th></tr>
<tr><td>No effect</td><td>Precise</td><td>RR less than -75/1.25
SMD less than -0.2/0.2</td></tr>
<tr><td>Inconclusive</td><td>Imprecise</td><td>RR less than -0.75/1.25
SMD less than -0.2/0.2</td></tr>
<tr><td>Effective, but imprecise</td><td>Imprecise</td><td>RR greater than 0.75/1.25
SMD greater than -0.2/0.2</td></tr>
<tr><td>Effective, but effect size too small to be clinically effective</td><td>Precise</td><td>RR less than -75/1.25
SMD less than -0.2/0.2</td></tr>
<tr><td>Effective</td><td>Precise</td><td>RR greater than 0.75/1.25
SMD greater than -0.2/0.2</td></tr>
</table>
</td></tr>
<tr><td>Heterogeneity (sensitivity analysis and subgroups)</td><td>
If heterogeneity is found, it will first be explored by performing a sensitivity analysis eliminating papers that have a high risk of bias.

If heterogeneity is still present, the influence of the following subgroups will be considered:

Category of attachment problem (disorganised, insecure anxious ambivalent, insecure anxious-avoidant, attachment disorder – reactive attachment inhibited, reactive attachment disinhibited).

</td></tr>
</table>

Process features associated with risk of attachment difficulties

Topic	Prediction, identification and assessment
Review question 2	What process features for taking children and young people into local authority care are associated with an increased or decreased risk of developing or worsening attachment difficulties?
Objectives	To identify process risk factors that are typically not modifiable.
Population	Children and young people (aged 0–18 years) with attachment difficulties. Including those who as a result of attachment difficulties: • warrant health care intervention • have functional impairment. Settings: • adopted, including those adopted from abroad • looked after children in the care system • on the edge of care. Strata: • pre-school (≤4 years) • primary school (>4 to 11 years) • secondary school (>11 to 18 years).
Exclude	• Children and young people who are adopted from outside of the care system. • Children who are looked after on a planned temporary basis and subsequently return home.
Risk factors to consider:	Examples of process risk factors: On edge of care: • age of placement • taking child's wishes into account • In foster care • contact with parents • geographical distance from parents (same school, visit grandparents) • placement breakdown (placement stability) • cultural match • taking child's wishes into account • placing siblings together • training of foster carers • adopted • cultural match.
Intervention	Children exposed to risk factor
Comparison	Children not exposed to risk factor
Critical outcomes	Association between risk factor and attachment difficulties or placement stability.
Important, but not critical outcomes	Association between risk factors and the following: • behavioural, cognitive, educational and social functioning • wellbeing and quality of life • developmental status

Topic	Prediction, identification and assessment
	• criminal outcomes • parenting attitudes/behaviour.
Study design	• Individual patient data meta-analysis • Systematic reviews • Observational non-RCT studies (prospective, retrospective or cross-sectional studies). Note. RCTs were included if they provided a multiple regression analysis looking at predictors of any relevant outcomes To determine whether a particular factor accurately predicts insecure/disorganised attachment or attachment disorder, large-scale prospective studies are required which clearly define the risk factor under question and assess attachment difficulties using a well-validated diagnostic tool. It is important to note that studies that use a simple correlational design simply show that there is a link between factor and outcome but cannot establish whether the factor plays any causal role in the onset of the disorder.
Include unpublished data?	Unpublished data will only be included where a full study report is available with sufficient detail to properly assess the risk of bias. Authors of unpublished evidence will be asked for permission to use such data, and will be informed that summary data from the study and the study's characteristics will be published in the full guideline
Restriction by date?	No
Minimum sample size	N=20 for primary studies.
Study setting	• A range of community settings including fostering, residential and kinship care settings • Looked after under Section 20 of Children's Act • Primary care settings • Secondary care settings • Secure settings • All educational settings such as teacher training, support staff, contact arrangement, the number of key workers.
Search strategy	The databases to be searched include: • CENTRAL • Embase • MEDLINE • PsycINFO • Social Care Online • ChildData • ASSIA • British Education Index • Social Services Abstracts. Types of studies to be included: • IPD • SR • RCT

Topic	Prediction, identification and assessment
	• observational studies. Types of studies to be included: • RCT • prospective cohort • case-study • cross-sectional Studies will be restricted to English language only. Abstracts will be excluded unless there are no other studies available for a particular outcome or question.
Searching other resources	

The review strategy	Reviews:
	Cochrane reviews will be quality assessed and presented if deemed relevant and important.
	
	Data analysis:
	Results from risk factor studies are often not combined because different confounders are used.
	
	The adjusted numbers reported in the paper will be used. Unadjusted data will not be used.
	
	The data will be presented in forest plots or in text as either:
	• adjusted risk factors
	• adjusted OR, RR, HR (dichotomous variables)
	• adjusted regression r2 or β (continuous variables).
	
	For observational cohort studies, the quality of the outcome starts at very low quality and will be upgraded if the studies included one of the following:
	• for continuous outcomes the sample size was ≥400 and for dichotomous outcomes the sample size was ≥300 events.
	• they adjusted the outcome for confounders
	• no risk of bias or indirectness based on the criteria of:
	  ○ generalisability of the population
	  ○ the degree of missing data
	  ○ if the outcome was measured using a valid or reliable tool
	  ○ if the risk factor was measured adequately
	  ○ if appropriate statistics were used.
	
	For systematic reviews the quality will be assessed using the following criteria:
	• how relevant the data was for the review
	• studies are relevant to the guideline
	• literature search is rigorous
	• study quality is assessed
	• adequate description of the methods.

Heterogeneity	Heterogeneity will be explored by comparing confounders used in the analysis.

Topic	Prediction, identification and assessment
(sensitivity analysis and subgroups)	

Features of arrangements made for children in care associated with attachment difficulties

Topic	Prediction, identification and assessment
Review question 3	What features of arrangements made for children and young people in each looked-after setting (residential, fostering, kinship care, adoption), secure and education setting are associated with an increase or decrease in the risk of developing or worsening attachment difficulties?
Objectives	To identify arrangement risk factors that may be considered modifiable
Population	Children and young people (aged 0–18 years) with attachment difficulties. Including those who as a result of attachment difficulties: • warrant health care intervention • have functional impairment. Settings: • adopted, including those adopted from abroad • looked after children in the care system • on the edge of care. Strata: • pre-school (≤4 years) • primary school (>4 to 11 years) • secondary school (>11 to 18 years).
Exclude	• Children and young people who are adopted from outside of the care system. • Children who are looked after on a planned temporary basis and subsequently return home.
Risk factors may include	Example risk factors: • foster care • duration of care • disabilities addressed • children who are returning to live with their parents. • educational disruption • contact with and continuity of social worker • consistency of care by same carer. • stigma of being in care. Adopted: • If adopted versus foster.
Intervention	Children exposed to risk factor
Comparison	Children not exposed to risk factor
Critical outcomes	Association between risk factor and attachment difficulties and placement stability.

Topic	Prediction, identification and assessment
Important, but not critical outcomes	Association between risk factors and the following: • behavioural, cognitive, educational and social functioning. • wellbeing and quality of life • developmental status • criminal outcomes • parenting attitudes/behaviour.
Study design	• Individual patient data meta-analysis. • SR. • Observational non-RCT studies (prospective, retrospective or cross-sectional studies). Note. RCTs were included if they provided a multiple regression analysis looking at predictors of any relevant outcomes. To determine whether a particular factor accurately predicts insecure/disorganised attachment or attachment disorder, large-scale prospective studies are required which clearly define the risk factor under question and assess attachment difficulties using a well-validated diagnostic tool. It is important to note that studies that use a simple correlational design simply show that there is a link between factor and outcome but cannot establish whether the factor plays any causal role in the onset of the disorder.
Include unpublished data	Unpublished data will only be included where a full study report is available with sufficient detail to properly assess the risk of bias. Authors of unpublished evidence will be asked for permission to use such data, and will be informed that summary data from the study and the study's characteristics will be published in the full guideline.
Restriction by date?	No
Minimum sample size	N=20 for primary studies only.
Study setting	• A range of community settings including fostering, residential and kinship care settings • Looked after under Section 20 of Children's Act • Primary care settings • Secondary care settings • Secure settings • All educational settings such as teacher training, support staff, contact arrangement, the number of key workers.
Search strategy	The databases to be searched include: • CENTRAL • Embase • MEDLINE • PsycINFO • Social Care Online • ChildData • ASSIA • British Education Index • Social Services Abstracts.

Topic	Prediction, identification and assessment
	Types of studies to be included: • IPD • SR • RCT • observational studies. Studies will be restricted to English language only. Abstracts will be excluded unless there are no other studies available for a particular outcome or question.
Searching other resources	

The review strategy	Reviews:
	Cochrane reviews will be quality assessed and presented if deemed relevant and important.
	
	Data analysis:
	Results from risk factor studies are often not combined because different confounders are used.
	
	The adjusted numbers reported in the paper will be used. Unadjusted data will not be used.
	
	The data will be presented in forest plots or in text as either:
	• adjusted risk factors
	• adjusted OR, RR, HR (dichotomous variables)
	• adjusted regression r2 or β (continuous variables).
	
	For observational cohort studies, the quality of the outcome starts at very low quality and will be upgraded if the studies included one of the following:
	• for continuous outcomes the sample size was ≥400 and for dichotomous outcomes the sample size was ≥300 events
	• they adjusted the outcome for confounders
	• no risk of bias or indirectness based on the criteria of:
	  ○ generalisability of the population
	  ○ the degree of missing data
	  ○ if the outcome was measured using a valid or reliable tool
	  ○ if the risk factor was measured adequately
	  ○ if appropriate statistics were used.
	
	For systematic reviews the quality will be assessed using the following criteria:
	• how relevant the data was for the review
	• studies are relevant to the guideline
	• literature search is rigorous
	• study quality is assessed
	• adequate description of the methods.

Heterogeneity (sensitivity analysis and subgroups)	Heterogeneity will be explored by comparing confounders used in the analysis.

Tools to predict attachment difficulties

Topic	Prediction, identification and assessment
Review question 4	What measurements/tools can be used to predict children and young people at risk of developing attachment difficulties? How valid and reliable are they?
Objectives	To identify valid and reliable tools to predict attachment difficulties
Population	Infants, children and young people (aged 0–18 years) who are at risk of having attachment difficulties. Children at high risk of attachment difficulties may include those exposed to the following risk factors: • children who are or likely to be maltreated (that is, abuse or neglect) • children who have parents/carers with mental health problems • children who have parents/carers who have been in care themselves • children who parents/carers have substance abuse disorder (alcohol or drugs) • children with disabilities (learning/physical) • are identified by social care services as being at high risk and have had a Core Assessment. Settings: • adopted, including those adopted from abroad • looked after children in the care system • on the edge of care. Strata: • pre-school (≤4 years) • primary school (>4 to 11 years) • secondary school (>11 to 18 years).
Exclude	• Children and young people who are adopted from outside of the care system. • Children who are looked after on a planned temporary basis and subsequently return home
Intervention	Tools for detecting/predicting attachment difficulties the review will assess the validity and reliability of maternal sensitivity tools, including: • Ainsworth sensitivity scale • CARE-Index • Maternal Behaviour Q-Sort.
Comparison	Reference tool
Critical outcomes	Sensitivity: the proportion of true positives of all cases diagnosed with maternal sensitivity in the population Specificity: the proportion of true negatives of all cases not-diagnosed with maternal sensitivity in the population.
Important, but not critical outcomes	Validity: Concurrent validity, convergent validity, construct validity, content validity, predictive and discriminant validity. Reliability: Inter-rater reliability, test re-test reliability, internal consistency.
Study design	• RCT

Topic	Prediction, identification and assessment
	• Cohort • Cross-sectional.
Include unpublished data?	Unpublished data will only be included where a full study report is available with sufficient detail to properly assess the risk of bias. Authors of unpublished evidence will be asked for permission to use such data, and will be informed that summary data from the study and the study's characteristics will be published in the full guideline
Restriction by date?	No
Minimum sample size	N=20
Study setting	• A range of community settings including fostering, residential and kinship care settings. • Looked after under Section 20 of Children's Act. • Primary care settings. • Secondary care settings. • Secure settings • All educational settings such as teacher training, support staff, contact arrangement, the number of key workers.
Search strategy	The databases to be searched include: • CENTRAL • Embase • MEDLINE • PsycINFO • Social Care Online • ChildData • ASSIA • British Education Index • Social Services Abstracts. Types of studies to be included: • RCT • cohort • cross-sectional. Studies will be restricted to English language only. Abstracts will be excluded unless there are no other studies available for a particular outcome or question.
Searching other resources	
The review strategy	Forest plots of sensitivity and specificity with their 95% confidence intervals will be presented side-by-side for individual studies using RevMan 5 software. To show visually any heterogeneity in study results, sensitivity and specificity will be plotted for each study in receiver operating characteristics (ROC) space in RevMan 5. An ROC plot shows true positive rate (that is, sensitivity) as a function of false positive rate (that is, 1 – specificity). When data from 5 or more studies are available, a diagnostic meta-analysis will be carried out. To show the differences between study

Topic	Prediction, identification and assessment
	results, pairs of sensitivity and specificity will be plotted for each study on one ROC curve in Microsoft EXCEL software. Study results will be pooled using the bivariate method for the direct estimation of summary sensitivity and specificity using a random effects approach (in WinBUGS® software). This model also assesses the variability by incorporating the precision by which sensitivity and specificity have been measured in each study. A confidence ellipse is shown in the graph that indicates the confidence region around the summary sensitivity / specificity point. A summary ROC curve is also presented. Note: If there is a variation in thresholds across studies, a summary ROC curve is appropriate to summarise the data. If there is a common threshold across studies, a summary estimate point is best used. From the WinBUGS® output we report the summary estimate of sensitivity and specificity (plus their 95% confidence intervals) as well as between study variation measured as logit sensitivity and specificity as well as correlations between the two measures of variation. The summary diagnostic odds ratio with its 95% confidence interval is also reported. If data cannot be meta-analysed a narrative of results will be included. For prognostic studies, the quality of the data (typically from cross-sectional or cohort studies) will be assessed based on a modified QUADAS checklist that included the following: • potential risks of bias in recruiting the sample population, that is, if it is unclear what exclusion criteria was used or if they matched cases with controls. • used an indirect population • if the tools or outcomes were poorly described in the paper or if a pre-specified threshold was not used • if interpreter was blind to other results • time between tests is appropriate. For systematic reviews the quality will be assessed using the following criteria: • how relevant the data was for the review • studies are relevant to the guideline • literature search is rigorous • study quality is assessed • adequate description of the methods.
Heterogeneity (sensitivity analysis and subgroups)	If heterogeneity is found, it will be explored by performing a sensitivity analysis eliminating papers that have a high risk of bias.

Tools to identify attachment difficulties

Topic	Prediction, identification and assessment
Review question 5	What measurements/tools can be used to identify/assess attachment difficulties in children and young people? How valid and reliable are they?
Objectives	To identify valid and reliable tools to identify/assess attachment difficulties
Population	Infants, children and young people (aged 0–18 years) with attachment difficulties. Settings: Adopted, including those adopted from abroad; looked-after children in the care system; on the edge of care Strata: • pre-school (≤4 years) • primary school (>4 to 11 years) • secondary school (>11 to 18 years).
Exclude	• Children and young people who are adopted from outside of the care system. • Children who are looked after on a planned temporary basis and subsequently return home
Intervention	Example of tools that may be considered for measuring attachment difficulties • Attachment Q-sort • Strange Situation Procedure • Cassidy and Marvin Preschool Attachment Coding System • Child attachment interview • Preschool Assessment of Attachment • Manchester Child Attachment Story Task • Story Stem assessment • School-age Assessment of Attachment.
Comparison	Reference tool.
Critical outcomes	Sensitivity (sensitivity): the proportion of true positives of all cases diagnosed with attachment difficulties in the population Specificity (specificity): the proportion of true negatives of all cases not-diagnosed with attachment difficulties in the population.
Important, but not critical outcomes	Validity: Concurrent validity, convergent validity, construct validity, content validity, predictive and discriminant validity. Reliability: Inter-rater reliability, test re-test reliability, internal consistency.
Study design	• RCTs • Cohort • Cross-sectional.
Include unpublished data?	Unpublished data will only be included where a full study report is available with sufficient detail to properly assess the risk of bias. Authors of unpublished evidence will be asked for permission to use such data, and will be informed that summary data from the study and the study's characteristics will be published in the full guideline

Topic	Prediction, identification and assessment
Restriction by date?	No
Minimum sample size	N=20
Study setting	A range of community settings including: • fostering, residential and kinship care settings • looked after under Section 20 of Children's Act • primary care settings • secondary care settings • secure settings • all educational settings, such as teacher training, support staff, contact arrangement, the number of key workers.
Search strategy	The databases to be searched include: • CENTRAL • Embase • MEDLINE • PsycINFO • Social Care Online • ChildData • ASSIA • British Education Index • Social Services Abstracts. Types of studies to be included: • RCT • cohort • cross-sectional. Studies will be restricted to English language only. Abstracts will be excluded unless there are no other studies available for a particular outcome or question.
Searching other resources	
The review strategy	Forest plots of sensitivity and specificity with their 95% confidence intervals will be presented side-by-side for individual studies using RevMan 5 software. To show visually any heterogeneity in study results, sensitivity and specificity will be plotted for each study in ROC space in RevMan 5. An ROC plot shows true positive rate (that is, sensitivity) as a function of false positive rate (that is, 1 – specificity). When data from 5 or more studies are available, a diagnostic meta-analysis will be carried out. To show the differences between study results, pairs of sensitivity and specificity will be plotted for each study on one ROC curve in Microsoft Excel software. Study results will be pooled using the bivariate method for the direct estimation of summary sensitivity and specificity using a random effects approach (in WinBUGS® software). This model also assesses the variability by incorporating the precision by which sensitivity and specificity have been measured in each study. A confidence ellipse is shown in the graph that indicates the confidence

Topic	Prediction, identification and assessment
	region around the summary sensitivity / specificity point. A summary ROC curve is also presented. Note: If there is a variation in thresholds across studies, a summary ROC curve is appropriate to summarise the data. If there is a common threshold across studies, a summary estimate point is best used. From the WinBUGS® output we report the summary estimate of sensitivity and specificity (plus their 95% confidence intervals) as well as between study variation measured as logit sensitivity and specificity as well as correlations between the two measures of variation. The summary diagnostic odds ratio with its 95% confidence interval is also reported. For diagnostic studies, the quality of the data (typically from cross-sectional or cohort studies) will be assessed based on a modified QUADAS checklist that included the following: • potential risks of bias in recruiting the sample population, that is, if it is unclear what exclusion criteria was used or if they matched cases with controls. • used an indirect population • if the tools or outcomes were poorly described in the paper or if a pre-specified threshold was not used • if interpreter was blind to other results • time between tests is appropriate. For systematic reviews the quality will be assessed using the following criteria: • how relevant the data was for the review • studies are relevant to the guideline • literature search is rigorous • study quality is assessed • adequate description of the methods.
Heterogeneity (sensitivity analysis and subgroups)	If heterogeneity is found, it will be explored by performing a sensitivity analysis eliminating papers that have a high risk of bias.

Interventions to prevent attachment difficulties for children on edge of care

Topic	Prevention of attachment disorders and problems
Review question 6	What interventions are effective in the prevention of attachment difficulties in children and young people on the edge of care? What are the adverse effects associated with the each intervention?
Objectives	To identify effective interventions for promoting attachment between children and young people and their parents
Population	Children and young people (aged 0–18 years) at risk of developing attachment difficulties and are at on the edge of care. Children on the edge of care are defined as those who are exposed to risk factors that are likely to bring them to the edge of care. Risk factors may include one or more of the following: • children who have:

Topic	Prevention of attachment disorders and problems
	○ been or are at risk of being maltreated ○ parents who have mental health/substance misuse problems ○ parents who have been in care themselves ○ parents who have attachment difficulties ○ families at social disadvantage (for example, living in poverty) ○ parents in prison ○ adolescent mothers ○ experienced domestic abuse ○ are identified by social care services as being at high risk and have had a Core Assessment. Strata: • pre-school (≤4 years) • primary school (>4 to 11 years) • secondary school (>11 to 18 years).
Exclude	• Children and young people who are adopted from outside of the care system. • Children who are looked after on a planned temporary basis and subsequently return home. • Children in care or who are adopted.
Intervention	• Videofeedback (including attachment-based interventions) • Parent training, education and support • Parent sensitivity and behaviour training • Multidimensional treatment programme • Home visiting • Psychotherapy • Cognitive behavioural therapy • Counselling. Focus may be: • child focused • parent focused • parent–child based.
Comparison	• Usual care (includes waiting list or no intervention) • Or another intervention.
Exclude	• Any intervention where the risk of the child going into care cannot be attributed to the parent; that is, children with conduct disorder/ behavioural problems and whose parents do not display any of the risk factors. • Any intervention where the child has attachment difficulties but there is no risk of them going into care (that is, their parents do not display any of the risk factors). • Any interventions where the aim of study is not to improve attachment (that is, interventions for mental health problems in the mother , for example CBT for postnatal depression, that may include outcomes of mother-infant relationship). • Interventions that do not target an at-risk population and aims at improving mother-infant attachment in low birth weight/ irritable/ preterm infants (which can include kangaroo care/ skin-to-skin contact).

Topic	Prevention of attachment disorders and problems
	• Any study where they do not measure one or more of the critical outcomes.
Critical outcomes	• attachment (secure, insecure, disorganised) • maternal sensitivity • maternal responsiveness • placements breakdown.
Important, but not critical outcomes	• behavioural, cognitive, educational and social functioning. • wellbeing and quality of life • developmental status • criminal outcomes • parenting attitudes/behaviour
Study design	• Systematic reviews • RCTs
Include unpublished data	Unpublished data will only be included where a full study report is available with sufficient detail to properly assess the risk of bias. Authors of unpublished evidence will be asked for permission to use such data, and will be informed that summary data from the study and the study's characteristics will be published in the full guideline
Restriction by date	No (we will only be contacting authors for missing data that are published within the last 10 years).
Minimum sample size	N=20
Study setting	• A range of community settings, including fostering, residential, kinship care and adoption settings • Looked after under Section 20 of Children's Act • Primary care settings • Secondary care settings • Secure settings • All educational settings such as teacher training, support staff, contact arrangement, the number of key workers.
Search strategy	The databases to be searched include: • CENTRAL • Embase • MEDLINE • PsycINFO • Social Care Online • ChildData • ASSIA • British Education Index • Social Services Abstracts Types of studies to be included: • RCTs • systematic reviews. Studies will be restricted to English language only. Conference abstracts will be excluded unless there are no other studies available for a particular outcome or question.
Search status	

Topic	Prevention of attachment disorders and problems		
	SR, RCT Status	Started ☐	Completed ☒
Search dates	SR RCT	1998 to March 2014 Inception to March 2014	
Searching other resources			
The review strategy	Reviews: Cochrane reviews will be quality assessed and presented if deemed relevant and important. If other reviews are found, the GC will assess their quality, completeness, and applicability to the NHS and to the scope of the guideline. If the GC agree that a systematic review appropriately addresses a review question, we will search for studies conducted or published since the review was conducted. If new studies could change the conclusions, we will update the review and conduct a new analysis. If new studies could not change the conclusions of an existing review, the GC will use the existing review to inform their recommendations. Data analysis: Where appropriate, meta-analysis will be used to combine results from similar studies. Alternatively, a narrative synthesis will be used. Therapeutic approaches based on similar theories will be grouped together where possible. For randomised controlled trials outcomes will be downgraded if the randomisation and/or allocation concealment methods are unclear or inadequate. Outcomes will also be downgrade if no attempts are made to blind the assessors or participants in some way, that is, by either not knowing the aim of the study or the result from other tests. Outcomes will also downgraded if there is considerable missing data (see below). Handling missing data: If information on missing participants cannot be retrieved, their data was excluded from both the numerator and denominator when calculating the relative risk in the trial. This is known as complete case analysis or available case analysis. Outcomes were downgraded if there was a dropout of more than 20%, or if there was a difference of >20% between the groups. For heterogeneity: outcomes will be downgraded once if I^2 >50%, twice if I^2 >80%. For imprecision: outcomes will be downgraded if: • Step 1: If the 95% CI is imprecise that is, crosses 0.75 or 1.25 (dichotomous) or -0.5 or 0.5 (for continuous). Outcomes were downgrade one or two levels depending on how many lines it crosses. • Step 2: If the clinical decision threshold is not crossed, consider whether the criterion for optimal information size is met, if not downgrade one level for the following.		

<table>
<tr><th>Topic</th><th>Prevention of attachment disorders and problems</th></tr>
<tr><td></td><td>

for dichotomous outcomes: <300 events
for continuous outcomes: <400 participants

For clinical effectiveness the following criteria was used:

SMD <0.2 too small to likely show an effect
SMD 0.2 small effect
SMD 0.5 moderate effect
SMD 0.8 large effect

RR <0.75 or >1.25 clinical benefit.
Anything less (RR >0.75 and <1.25), the absolute numbers were looked at to make a decision on whether there may be a clinical effect.

For evidence statements
<table>
<tr><th>Statement</th><th>Precision criteria</th><th>Effect size criteria</th></tr>
<tr><td>No effect</td><td>Precise</td><td>RR less than -75/1.25
SMD less than -0.2/0.2</td></tr>
<tr><td>Inconclusive</td><td>Imprecise</td><td>RR less than -0.75/1.25
SMD less than -0.2/0.2</td></tr>
<tr><td>Effective but imprecise</td><td>Imprecise</td><td>RR greater than 0.75/1.25
SMD greater than -0.2/0.2</td></tr>
<tr><td>Effective but effect size too small to be clinically effective</td><td>Precise</td><td>RR less than -75/1.25
SMD less than -0.2/0.2</td></tr>
<tr><td>Effective</td><td>Precise</td><td>RR greater than 0.75/1.25
SMD greater than -0.2/0.2</td></tr>
</table>
</td></tr>
<tr><td>Heterogeneity (sensitivity analysis and subgroups)</td><td>If heterogeneity is found, it will first be explored by performing a sensitivity analysis eliminating papers that have a high risk of bias.
If heterogeneity is still present, the influence of the following subgroups will be considered:

Duration of treatment
Different tools that measure the same or similar outcomes

</td></tr>
<tr><td>Notes</td><td>For studies in children with behavioural problems, studies will be included if the parent’s insensitivity is suspected to be the cause of the child’s difficulties. that is, the intervention aims to treat the relationship that is thought to be the cause of the child’s disturbance in the first place.

For studies that a ≥3 armed trial, the interventions will be considered separately relative to the control arm.

A particular focus will be made on children who have been maltreated since they are high risk of going into care.</td></tr>
</table>

Interventions for preventing attachment difficulties in children being looked after

Topic	Prevention of attachment disorders and problems
Review question 7	What interventions are effective in the prevention of attachment difficulties in children and young people being looked-after? What are the adverse effects associated with each intervention?
Objectives	To identify effective interventions to prevent attachment difficulties in children in the early stages of being looked after.
Population	Infants, children and young people (aged 0–18 years) who are being looked after. Strata: • pre-school (≤4 years) • primary school (>4 to 11 years) • secondary school (>11 to 18 years).
Exclude	• Children and young people who are adopted from outside of the care system • Children who are looked after on a planned temporary basis and subsequently return home • Adopted children.
Intervention	• Video feedback (including Attachment based interventions) • Parent Training, Education and Support • Parent Sensitivity and Behavioural Training • Multidimensional Treatment Programme • Foster care with parental support • Home visiting • Psychotherapy • Cognitive behavioural therapy Focus may be: • child focused • parent focused (for example, Developmental Education for Families; Family group conferencing therapy) • parent–child based (for example, Infant-parent psychotherapy, Toddler-Parent Psychotherapy).
Comparison	Usual care
Critical outcomes	• disorganised attachment and/ or attachment difficulties • maternal sensitivity • maternal responsiveness • placement breakdown.
Important, but not critical outcomes	• behavioural, cognitive, educational and social functioning. • wellbeing and quality of life • developmental status • criminal outcomes • parenting attitude/knowledge/behaviour • parenting stress/mental wellbeing (these are all the measures of the parent's wellbeing).
Study design	• Hierarchy of evidence • Systematic reviews (Cochrane review Macdonald 2007) • RCTs

Topic	Prevention of attachment disorders and problems
	Note: Only include papers that measure one or more of the critical outcomes Note: In contrast to those children at risk of going into care, the foster/adoptive parents may not be insensitive or a contributing cause of the child's attachment disorder, but nevertheless the child has not developed a selective attachment relationship to them.
Include unpublished data?	Unpublished data will only be included where a full study report is available with sufficient detail to properly assess the risk of bias. Authors of unpublished evidence will be asked for permission to use such data, and will be informed that summary data from the study and the study's characteristics will be published in the full guideline
Restriction by date?	No
Minimum sample size	N=20
Study setting	• A range of community settings including fostering, residential, kinship care and adoption settings • Looked after under Section 20 of Children's Act • Primary care settings • Secondary care settings • Secure settings • All educational settings such as teacher training, support staff, contact arrangement, the number of key workers.
Search strategy	The databases to be searched include: • CENTRAL • Embase • MEDLINE • PsycINFO • Social Care Online • ChildData • ASSIA • British Education Index • Social Services Abstracts. Types of studies to be included: • RCT, • systematic reviews. Studies will be restricted to English language only. Abstracts will be excluded unless there are no other studies available for a particular outcome or question.
Searching other resources	
Search dates	SR: 1998 to January 2014 RCT: Inception to January 2014
Search dates	SR: 1998 to January 2014

Topic	Prevention of attachment disorders and problems		
	RCT	Inception to January 2014	
Search status	SR, RCT Status	Started ☐	Completed ☒
Search dates	SR RCT	1998 to January 2014 Inception to January 2014	
The review strategy	Reviews Cochrane: reviews will be quality assessed and presented if deemed relevant and important. If other reviews are found, the GC will assess their quality, completeness, and applicability to the NHS and to the scope of the guideline. If the GC agree that a systematic review appropriately addresses a review question, we will search for studies conducted or published since the review was conducted. If new studies could change the conclusions, we will update the review and conduct a new analysis. If new studies could not change the conclusions of an existing review, the GC will use the existing review to inform their recommendations. Data analysis: Where appropriate, meta-analysis will be used to combine results from similar studies. Alternatively, a narrative synthesis will be used. Therapeutic approaches based on similar theories will be grouped together where possible. Different tools that measure the same or similar outcomes will also be grouped together where possible. For randomised controlled trials outcomes will be downgraded if the randomisation and/or allocation concealment methods are unclear or inadequate. Outcomes will also be downgrade if no attempts are made to blind the assessors or participants in some way, that is, by either not knowing the aim of the study or the result from other tests. Outcomes will also downgraded if there is considerable missing data (see below). Handling missing data: If information on missing participants cannot be retrieved, their data was excluded from both the numerator and denominator when calculating the relative risk in the trial. This is known as complete case analysis or available case analysis. Outcomes were downgraded if there was a dropout of more than 20%, or if there was a difference of >20% between the groups. For heterogeneity: outcomes will be downgraded once if I^2 >50%, twice if I^2 >80%. For imprecision: outcomes will be downgraded if: • Step 1: If the 95% CI is imprecise that is, crosses 0.75 or 1.25 (dichotomous) or -0.5 or 0.5 (for continuous). Outcomes were		

<table>
<tr><th>Topic</th><th>Prevention of attachment disorders and problems</th></tr>
<tr><td></td><td>
downgrade one or two levels depending on how many lines it crosses.
• Step 2: If the clinical decision threshold is not crossed, consider whether the criterion for optimal information size is met, if not downgrade one level for the following.
○ for dichotomous outcomes: <300 events
○ for continuous outcomes: <400 participants

For clinical effectiveness the following criteria was used:
• SMD <0.2 too small to likely show an effect
• SMD 0.2 small effect
• SMD 0.5 moderate effect
• SMD 0.8 large effect.

RR <0.75 or >1.25 clinical benefit.
Anything less, the absolute numbers were looked at to make a decision on whether there may be a clinical effect.

For evidence statements
<table>
<tr><th>Statement</th><th>Precision criteria</th><th>Effect size criteria</th></tr>
<tr><td>No effect</td><td>Precise</td><td>RR less than -75/1.25
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<tr><td>Effective but effect size too small to be clinically effective</td><td>Precise</td><td>RR less than -75/1.25
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<tr><td>Effective</td><td>Precise</td><td>RR greater than 0.75/1.25
SMD greater than -0.2/0.2</td></tr>
</table>
</td></tr>
<tr><td>Heterogeneity (sensitivity analysis and subgroups)</td><td>
• If heterogeneity is found, it will first be explored by performing a sensitivity analysis eliminating papers that have a high risk of bias.
• If heterogeneity is still present, the influence of the following subgroups will be considered:
○ Duration of treatment.
</td></tr>
</table>

Interventions for preventing attachment difficulties in children who have been adopted

Topic	Prevention of attachment disorders and problems
Review question 8	What interventions are effective in the prevention of attachment difficulties in children and young people who have been adopted from care? What are the adverse effects associated with each intervention?
Objectives	To identify effective interventions to prevent attachment difficulties in children who have been adopted from care.

Topic	Prevention of attachment disorders and problems
Population	Infants, children and young people (aged 0–18 years) who have been adopted from care. Strata: • pre-school (≤4 years) • primary school (>4 to 11 years) • secondary school (>11 to 18 years).
Exclude	• Children and young people with attachment difficulties and are not looked after, or who are adopted from outside of the care system • Children and young people at high risk of being looked after (commonly, infants, children or young people who are being considered for care proceedings or are subject to them) • Children and young people in the early stages of care.
Intervention	• Video feedback (including attachment-based interventions) • Parent training, education and support • Parent sensitivity and behavioural training • Multidimensional treatment programme • Home visiting • Psychotherapy • Cognitive behavioural therapy. Focus may be: • child focused • parent focused • parent–child based.
Comparison	Usual care
Critical outcomes	• attachment difficulties or attachment disorder • maternal sensitivity • maternal responsiveness • placement breakdown.
Important, but not critical outcomes	• behavioural, cognitive, educational and social functioning. • wellbeing and quality of life • developmental status • criminal outcomes • parenting attitude/knowledge/behaviour • parenting stress/mental wellbeing.
Study design	Hierarchy of evidence: • Systematic reviews (Cochrane review Macdonald 2007) • RCTs. Notes: Only include papers that measure one or more of the critical outcomes. In contrast to those children at risk of going into care, the foster/adoptive parents may not be insensitive or a contributing cause of the child's attachment disorder, but nevertheless the child has not developed a selective attachment relationship to them.
Include unpublished data?	Unpublished data will only be included where a full study report is available with sufficient detail to properly assess the risk of bias. Authors of unpublished evidence will be asked for permission to use such data, and will be informed that summary data from the study and the study's characteristics will be published in the full guideline

Topic	Prevention of attachment disorders and problems
Restriction by date?	No
Minimum sample size	N=20
Study setting	• A range of community settings including fostering, residential and kinship care settings • Looked after under Section 20 of Children's Act • Primary care settings • Secondary care settings • Secure settings • All educational settings, such as teacher training, support staff, contact arrangement, the number of key workers
Search strategy	The databases to be searched include: • CENTRAL • Embase • MEDLINE • PsycINFO • Social Care Online • ChildData • ASSIA • British Education Index • Social Services Abstracts. Types of studies to be included: • RCT • systematic reviews. Studies will be restricted to English language only. Abstracts will be excluded unless there are no other studies available for a particular outcome or question.
Searching other resources	
Search status	SR, RCT — Started: ☐ Completed: ☒ Status
Search dates	SR: 1998 to January 2014 RCT: Inception to January 2014
The review strategy	Reviews: Cochrane reviews will be quality assessed and presented if deemed relevant and important. If other reviews are found, the GC will assess their quality, completeness, and applicability to the NHS and to the scope of the guideline. If the GC agree that a systematic review appropriately addresses a review question, we will search for studies conducted or published since the review was conducted. If new studies could change the conclusions, we will update the review and conduct a new analysis. If new studies could not change the conclusions of an existing review, the GC will use the existing review to inform their recommendations.

Topic	Prevention of attachment disorders and problems

Data analysis:

Where appropriate, meta-analysis will be used to combine results from similar studies. Alternatively, a narrative synthesis will be used.

Therapeutic approaches based on similar theories will be grouped together where possible. Different tools that measure the same or similar outcomes will also be grouped together where possible.

For randomised controlled trials outcomes will be downgraded if the randomisation and/or allocation concealment methods are unclear or inadequate. Outcomes will also be downgrade if no attempts are made to blind the assessors or participants in some way, that is, by either not knowing the aim of the study or the result from other tests. Outcomes will also downgraded if there is considerable missing data (see below).

Handling missing data:

If information on missing participants cannot be retrieved, their data was excluded from both the numerator and denominator when calculating the relative risk in the trial. This is known as complete case analysis or available case analysis.

Outcomes were downgraded if there was a dropout of more than 20%, or if there was a difference of >20% between the groups.

For heterogeneity: outcomes will be downgraded once if I^2 >50%, twice if I^2 >80%

For imprecision: outcomes will be downgraded if:

- Step 1: If the 95% CI is imprecise that is, crosses 0.75 or 1.25 (dichotomous) or -0.5 or 0.5 (for continuous). Outcomes were downgrade one or two levels depending on how many lines it crosses.
- Step 2: If the clinical decision threshold is not crossed, consider whether the criterion for optimal information size is met, if not downgrade one level for the following:
  - for dichotomous outcomes: <300 events
  - for continuous outcomes: <400 participants.

For clinical effectiveness the following criteria was used:

- SMD <0.2 too small to likely show an effect
- SMD 0.2 small effect
- SMD 0.5 moderate effect
- SMD 0.8 large effect.

RR <0.75 or >1.25 clinical benefit.

Anything less, the absolute numbers were looked at to make a decision on whether there may be a clinical effect.

For evidence statements

Statement	Precision criteria	Effect size criteria
No effect	precise	RR less than -75/1.25 SMD less than -0.2/0.2

Topic	Prevention of attachment disorders and problems
	<table><tr><td>Inconclusive</td><td>imprecise</td><td>RR less than -0.75/1.25 SMD less than -0.2/0.2</td></tr><tr><td>Effective but imprecise</td><td>imprecise</td><td>RR greater than 0.75/1.25 SMD greater than -0.2/0.2</td></tr><tr><td>Effective but effect size too small to be clinically effective</td><td>precise</td><td>RR less than -75/1.25 SMD less than -0.2/0.2</td></tr><tr><td>Effective</td><td>precise</td><td>RR greater than 0.75/1.25 SMD greater than -0.2/0.2</td></tr></table>
Heterogeneity (sensitivity analysis and subgroups)	If heterogeneity is found, it will first be explored by performing a sensitivity analysis eliminating papers that have a high risk of bias. If heterogeneity is still present, the influence of the following subgroups will be considered: • Duration of treatment.

Interventions for treating attachment difficulties for children on edge of care, in care and adopted from care

Topic	Treatment of disorganised attachment and attachment disorders
Review questions 9, 10 and 11	What psychological interventions are effective in the management of children and young people with attachment difficulties? What are the adverse effects associated with each intervention?
Objectives	To identify effective psychological interventions to treat attachment difficulties.
Population	Infants, children and young people (aged 0–18 years) with attachment difficulties, including those: • Adopted from care • Looked after children and young people • Children on the edge of care. Strata: • pre-school (≤4 years) • primary school (>4 to 11 years) • secondary school (>11 to 18 years).
Exclude	• Children and young people who are adopted from outside of the care system • Children who are looked after on a planned temporary basis and subsequently return home.
Intervention	• Video feedback (including attachment-based interventions) • Parent training, education and support • Parent sensitivity and behavioural training • Multidimensional treatment programme • Foster care with parental support • Home visiting • Psychotherapy • Cognitive behavioural therapy.

Topic	Treatment of disorganised attachment and attachment disorders
Comparison	Usual care
Critical outcomes	• attachment difficulties or attachment disorder • maternal sensitivity • maternal responsiveness • placement breakdown.
Important, but not critical outcomes	• behavioural, cognitive, educational and social functioning. • wellbeing and quality of life • developmental status • criminal outcomes • parenting attitude/knowledge/behaviour • parenting stress/mental wellbeing.
Study design	Hierarchy of evidence • Systematic reviews (Cochrane review Macdonald 2007) • RCTs. Note: Only include papers that have measured one or more of the critical outcomes.
Include unpublished data?	Unpublished data will only be included where a full study report is available with sufficient detail to properly assess the risk of bias. Authors of unpublished evidence will be asked for permission to use such data, and will be informed that summary data from the study and the study's characteristics will be published in the full guideline
Restriction by date?	No
Minimum sample size	N=20
Study setting	• A range of community settings including fostering, residential and kinship care settings. o Looked after under Section 20 of Children's Act o Primary care settings o Secondary care settings o Secure settings o All educational settings, such as teacher training, support staff, contact arrangement, the number of key workers.
Search strategy	The databases to be searched include: • CENTRAL • Embase • MEDLINE • PsycINFO • Social Care Online • ChildData • ASSIA • British Education Index • Social Services Abstracts. Types of studies to be included: • RCT • systematic reviews. Studies will be restricted to English language only. Abstracts will be excluded unless there are no other studies available for a particular outcome or question.

Topic	Treatment of disorganised attachment and attachment disorders
Searching other resources	
Search status	SR, RCT — Started: ☐ Completed: ☒ Status
Search dates	SR: 1998 to January 2014 RCT: Inception to January 2014
The review strategy	Reviews: Cochrane reviews will be quality assessed and presented if deemed relevant and important. If other reviews are found, the GC will assess their quality, completeness, and applicability to the NHS and to the scope of the guideline. If the GC agree that a systematic review appropriately addresses a review question, we will search for studies conducted or published since the review was conducted. If new studies could change the conclusions, we will update the review and conduct a new analysis. If new studies could not change the conclusions of an existing review, the GC will use the existing review to inform their recommendations. Data analysis: Where appropriate, meta-analysis will be used to combine results from similar studies. Alternatively, a narrative synthesis will be used. Therapeutic approaches based on similar theories will be grouped together where possible. Different tools that measure the same or similar outcomes will also be grouped together where possible. For randomised controlled trials outcomes will be downgraded if the randomisation and/or allocation concealment methods are unclear or inadequate. Outcomes will also be downgrade if no attempts are made to blind the assessors or participants in some way, that is, by either not knowing the aim of the study or the result from other tests. Outcomes will also downgraded if there is considerable missing data (see below). Handling missing data: If information on missing participants cannot be retrieved, their data was excluded from both the numerator and denominator when calculating the relative risk in the trial. This is known as complete case analysis or available case analysis. Outcomes were downgraded if there was a dropout of more than 20%, or if there was a difference of >20% between the groups. For heterogeneity: outcomes will be downgraded once if I^2 >50%, twice if I^2 >80%. For imprecision: outcomes will be downgraded if: • Step 1: If the 95% CI is imprecise that is, crosses 0.75 or 1.25 (dichotomous) or -0.5 or 0.5 (for continuous). Outcomes were downgrade one or two levels depending on how many lines it crosses. • Step 2: If the clinical decision threshold is not crossed, consider whether the criterion for optimal information size is met, if not downgrade one level for the following.

<table>
<tr><th>Topic</th><th>Treatment of disorganised attachment and attachment disorders</th></tr>
<tr><td></td><td>
for dichotomous outcomes: <300 events
for continuous outcomes: <400 participants
For clinical effectiveness the following criteria was used:
SMD <0.2 too small to likely show an effect
SMD 0.2 small effect
SMD 0.5 moderate effect
SMD 0.8 large effect.
RR <0.75 or >1.25 clinical benefit.
Anything less, the absolute numbers were looked at to make a decision on whether there may be a clinical effect.

For evidence statements
<table>
<tr><th>Statement</th><th>Precision criteria</th><th>Effect size criteria</th></tr>
<tr><td>No effect</td><td>precise</td><td>RR less than -75/1.25
SMD less than -0.2/0.2</td></tr>
<tr><td>Inconclusive</td><td>imprecise</td><td>RR less than -0.75/1.25
SMD less than -0.2/0.2</td></tr>
<tr><td>Effective but imprecise</td><td>imprecise</td><td>RR greater than 0.75/1.25
SMD greater than -0.2/0.2</td></tr>
<tr><td>Effective but effect size too small to be clinically effective</td><td>precise</td><td>RR less than -75/1.25
SMD less than -0.2/0.2</td></tr>
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</table>
</td></tr>
<tr><td>Heterogeneity (sensitivity analysis and subgroups)</td><td>If heterogeneity is found, it will first be explored by performing a sensitivity analysis eliminating papers that have a high risk of bias.
If heterogeneity is still present, the influence of the following subgroups will be considered:
Duration of treatment.</td></tr>
</table>

Pharmacological interventions for the treatment of attachment difficulties

Topic	Treatment of disorganised attachment and attachment disorders
Review question 12	What pharmacological interventions are effective in the treatment of children and young people with attachment difficulties? What are the adverse effects associated with each intervention?
Objectives	To identify effective pharmacological interventions to treat attachment difficulties.
Population	Infants, children and young people (aged 0–18 years) with insecure/disorganised attachment or attachment disorder. Strata: - pre-school (≤4 years) - primary school (>4 to 11 years) - secondary school (>11 to 18 years).

Topic	Treatment of disorganised attachment and attachment disorders
Exclude	• Children and young people who are adopted from outside of the care system. • Children who are looked after on a planned temporary basis and subsequently return home.
Intervention	Pharmacological intervention: May include: • Fluoxetine • Seroxat • Methylphenidate • Melatonin • Oxytocin. Recipients may include: • Carer • Child • Carer and child.
Comparison	• Placebo • Or one of the other comparisons.
Critical outcomes	• attachment difficulties or attachment disorder • maternal sensitivity • maternal responsiveness • placement breakdown.
Important, but not critical outcomes	behavioural, cognitive, educational and social functioning. • wellbeing and quality of life • developmental status • criminal outcomes • parenting attitude/knowledge/behaviour • parenting stress/mental wellbeing.
Study design	• Hierarchy of evidence • Systematic reviews • RCTs
Include unpublished data?	Unpublished data will only be included where a full study report is available with sufficient detail to properly assess the risk of bias. Authors of unpublished evidence will be asked for permission to use such data, and will be informed that summary data from the study and the study's characteristics will be published in the full guideline
Restriction by date?	No
Minimum sample size	N=20
Study setting	• A range of community settings including fostering, residential and kinship care settings • Looked after under Section 20 of Children's Act • Primary care settings • Secondary care settings • Secure settings • All educational settings.
Search strategy	The databases to be searched include: • CENTRAL • Embase

Topic	Treatment of disorganised attachment and attachment disorders
	• MEDLINE • PsycINFO • Social Care Online • ChildData • PsycInfo • ASSIA • British Education Index • Social Services Abstracts. Types of studies to be included: • RCT • systematic reviews. Studies will be restricted to English language only. Abstracts will be excluded unless there are no other studies available for a particular outcome or question.
Searching other resources	
The review strategy	Reviews: Cochrane reviews will be quality assessed and presented if deemed relevant and important. If other reviews are found, the GC will assess their quality, completeness, and applicability to the NHS and to the scope of the guideline. If the GC agree that a systematic review appropriately addresses a review question, we will search for studies conducted or published since the review was conducted. If new studies could change the conclusions, we will update the review and conduct a new analysis. If new studies could not change the conclusions of an existing review, the GC will use the existing review to inform their recommendations. Data analysis: Where appropriate, meta-analysis will be used to combine results from similar studies. Alternatively, a narrative synthesis will be used. Therapeutic approaches based on similar theories will be grouped together where possible. Different tools that measure the same or similar outcomes will also be grouped together where possible. For randomised controlled trials outcomes will be downgraded if the randomisation and/or allocation concealment methods are unclear or inadequate. Outcomes will also be downgrade if no attempts are made to blind the assessors or participants in some way, that is, by either not knowing the aim of the study or the result from other tests. Outcomes will also downgraded if there is considerable missing data (see below). Handling missing data: If information on missing participants cannot be retrieved, their data was excluded from both the numerator and denominator when calculating the relative risk in the trial. This is known as complete case analysis or available case analysis. Outcomes were downgraded if there was a dropout of more than 20%, or if there was a difference of >20% between the groups.

<table>
<tr><th>Topic</th><th>Treatment of disorganised attachment and attachment disorders</th></tr>
<tr><td></td><td>For heterogeneity: outcomes will be downgraded once if I^2 >50%, twice if I^2 >80%.

• For imprecision: outcomes will be downgraded if:
Step 1: If the 95% CI is imprecise that is, crosses 0.75 or 1.25 (dichotomous) or -0.5 or 0.5 (for continuous). Outcomes were downgrade one or two levels depending on how many lines it crosses.
• Step 2: If the clinical decision threshold is not crossed, consider whether the criterion for optimal information size is met, if not downgrade one level for the following:
○ for dichotomous outcomes: <300 events
○ for continuous outcomes: <400 participants

For clinical effectiveness the following criteria was used:
• SMD <0.2 too small to likely show an effect
• SMD 0.2 small effect
• SMD 0.5 moderate effect
• SMD 0.8 large effect
• RR <0.75 or >1.25 clinical benefit.

Anything less (RR >0.75 to <1.25) the absolute numbers were looked at to make a decision on whether there may be a clinical effect.

For evidence statements
<table>
<tr><th>Statement</th><th>Precision criteria</th><th>Effect size criteria</th></tr>
<tr><td>No effect</td><td>Precise</td><td>RR less than -75/1.25
SMD less than -0.2/0.2</td></tr>
<tr><td>Inconclusive</td><td>Imprecise</td><td>RR less than -0.75/1.25
SMD less than -0.2/0.2</td></tr>
<tr><td>Effective but imprecise</td><td>Imprecise</td><td>RR greater than 0.75/1.25
SMD greater than -0.2/0.2</td></tr>
<tr><td>Effective but effect size too small to be clinically effective</td><td>Precise</td><td>RR less than -75/1.25
SMD less than -0.2/0.2</td></tr>
<tr><td>Effective</td><td>Precise</td><td>RR greater than 0.75/1.25
SMD greater than -0.2/0.2</td></tr>
</table></td></tr>
<tr><td>Heterogeneity (sensitivity analysis and subgroups)</td><td>If heterogeneity is found, it will first be explored by performing a sensitivity analysis eliminating papers that have a high risk of bias.
If heterogeneity is still present, the influence of the following subgroups will be considered:
• duration of treatment.</td></tr>
</table>

Appendix G: High-priority research recommendations

The Guideline Committee has prioritised the following recommendations for research, based on its review of evidence, to improve NICE guidance and patient care in the future.

G.1 Screening assessment tools

Develop reliable and valid screening assessment tools for attachment and sensitivity that can be made available and used in routine health, social care and education settings.

Why this is important

Validated attachment and sensitivity tools are needed. They must be sensitive enough to detect children and young people at risk of attachment difficulties and changes in behaviour in response to an attachment-based intervention.

The window of opportunity to intervene before a child develops attachment difficulties is small, therefore the sensitivity tool should have strong psychometric properties.

Tools are needed for assessing sensitivity and attachment for biological parents and foster or adoptive parents of children and young people across all groups (0–17 years).

The tool must be readily available and able to be used in routine and social care settings before and after an intervention.

A cohort study is needed to validate any tool (new or existing) that can identify children and young people who have attachment difficulties at different ages. The study should include the following outcomes:

- sensitivity and specificity
- predictive validity (more than 12 months for outcomes such as behavioural problems and ongoing attachment difficulties).

A cohort study is also needed to validate any tool (new or existing) that can measure the sensitivity of parenting (by biological parents and new carers and adoptive parents) in relation to the child (of any age). The study should include the outcomes listed above.

G.2 Attachment-focused interventions

This research recommendation is composed of 2 parts.

1. Develop attachment-focused interventions to treat attachment difficulties in children aged over 5 years and young people who have been adopted or are in the care system
2. Develop attachment-based interventions to promote secure attachment in children and young people who have been, or are at risk of being, maltreated.

Why this is important

Attachment-focused interventions targeting adoptive parents, carers and children and young people are scarce. Most studies have targeted families of children on the edge of care and the evidence suggests some interventions are effective, therefore it is important to know whether similar interventions will work with other populations. Even less evidence is available

on children aged over 5 years and young people, therefore attachment-focused interventions should consider targeting this age group.

There is also limited evidence on attachment-based interventions targeting attachment difficulties and parental sensitivity in children and young people who have been, or are at risk of being, maltreated. Maltreatment is strongly associated with children entering care. If ways to improve the parent–child relationship and prevent maltreatment can be identified, the likelihood of children and young people entering care and having attachment difficulties can be minimised. Evidence from groups aged 11–17 years is limited, therefore age-appropriate interventions targeting this age group are needed.

A randomised controlled trial should be carried out to compare the clinical and cost effectiveness of attachment-focused interventions to treat attachment difficulties in children aged over 5 years and young people who have been adopted or are in the care system. The intervention (for example, parental sensitivity and education training) should target the adoptive parents and carers with or without the children. Primary outcome measures may include:

- attachment
- parental sensitivity
- placement disruption
- educational performance
- behavioural problems.

A randomised controlled trial should also be carried out to compare the clinical and cost effectiveness of an attachment-based intervention to promote secure attachment in children and young people who have been, or are at risk of being, maltreated, with usual care.

The intervention may target the child and/or the parent depending on the type of maltreatment (for example, sexual abuse or neglect).

Primary outcome measures may include the above, as well as ongoing maltreatment.

For both trials, there should be at least a 6-month to 1-year follow-up. Qualitative data may also be collected on the parents and child's experience of the intervention.

G.3 Evaluation of extensively used interventions

Evaluate currently unevaluated but extensively used interventions for attachment difficulties.

Why this is important

Various interventions are currently used to help address attachment difficulties that may be clinically effective, but without good quality evidence they cannot be considered by NICE.

A randomised controlled trial should be carried out that compares currently unevaluated interventions, such as playtherapy, dyadic developmental psychotherapy, and attachment aware schools program with an evidenced-based treatment for attachment difficulties. The interventions should address children in a wide variety of placements and ages.

Primary outcome measures may include:

- attachment
- parental sensitivity
- placement disruption
- educational performance
- behavioural problems.

There should be at least a 6-month to 1-year follow-up. Potential harms also need to be captured. Qualitative data may also be collected on the parents' and child's experience of the intervention.

G.4 Interventions in a school setting

Assess the clinical and cost effectiveness of an attachment-based intervention delivered in a school setting for children and young people on the edge of care, in the care system or adopted.

Why this is important

Providing an attachment-based intervention in a school setting is important for 3 reasons: teachers may be the first to identify some of the broader problems associated with attachment difficulties in children and young people; school may be one of the only stable environments for children and young people moving in and out of care; and school may provide a safe environment for the child or young person to take part in a therapeutic intervention.

The majority of the evidence to date has been collected in non-UK settings that have different healthcare systems and types of care provided, therefore it is important that more studies are carried out in a relevant UK setting. In addition, evidence on young people is limited, therefore age-appropriate interventions targeting attachment difficulties in this age group are needed.

A randomised controlled trial should be carried out to assess the clinical and cost effectiveness of an attachment-based intervention that can be delivered in a school setting for children and young people on the edge of care, in the care system or adopted, and for the wide range of children in schools who may have attachment difficulties. The intervention should be deliverable by teachers within the school setting, and not disrupt the delivery of the curriculum. It should focus on improving the functioning of children and young people with attachment difficulties within the school setting, as well as more widely, and increasing the skills of teachers to meet the children and young people's needs.

Primary outcome measures may include:

- attachment
- teacher sensitivity
- placement disruption
- educational performance
- behavioural problems.

There should be at least a 6-month to 1-year follow-up. Qualitative data may also be collected on the child or young person's experience of the intervention.

G.5 Relationship between attachment difficulties and complex trauma

This research recommendation is composed of 2 parts:

1. Assess the prevalence of attachment difficulties (including attachment disorders), complex trauma and the combination of both in children and young people in the care system and on the edge of care.
2. Investigate the effect of various factors, such as multiple placements, on the likelihood of having attachment difficulties, complex trauma or both.

Why this is important

Little is known about the prevalence of attachment difficulties, complex trauma or both in children and young people in the care system and on the edge of care in the UK. This information is important for understanding the needs of these populations and will highlight how complex trauma can be considered as a potential explanation for a child or young person's behaviour, with or without the diagnosis of attachment difficulties. The effect various factors have on the outcome of attachment difficulties and complex trauma also needs investigating. For example, multiple placements may decrease the risk of a child or young person developing a secure attachment with a primary caregiver. This will provide evidence for minimising placement disruption often experienced by children and young people and the importance of finding a stable, supportive home for those in care.

The study design may be a cross-sectional study of children and young people on the edge of care, in care and adopted from care to ascertain the number of children who have attachment difficulties and/or complex trauma.

In addition, data are collected on potential explanatory factors (for example, multiple placement) for the outcome of attachment difficulties, complex trauma or both.

Primary outcome measures may include:

- attachment
- carer sensitivity
- placement disruption
- complex trauma.

A large number of children are needed to attain power to detect a difference and for running a multiple regression analysis. Qualitative data may also be collected on the child or young person's experience in care.