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Wright, Barry orcid.org/0000-0002-8692-6001, Fearon, Pasco, Garside, Megan et al. (11 more authors) (2023) Routinely used interventions to improve attachment in infants and young children:a national survey and two systematic reviews. Health technology assessment (Winchester, England). pp. 1-226. ISSN 2046-4924

<https://doi.org/10.3310/IVCN8847>

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Health Technology Assessment

Volume 27 • Issue 2 • February 2023

ISSN 1366-5278

Routinely used interventions to improve attachment in infants and young children: a national survey and two systematic reviews

Barry Wright, Pasco Fearon, Megan Garside, Eleni Tsappis, Elaine Amoah, Danya Glaser, Victoria Allgar, Helen Minnis, Matthew Woolgar, Rachel Churchill, Dean McMillan, Peter Fonagy, Alison O'Sullivan and Michelle McHale



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Declared competing interests of authors: Peter Fonagy received the National Institute for Health and Care Research (NIHR) ARC initiative funding for this report. Peter Fonagy reports grants from the NIHR ARC initiative (2019–present). He also receives royalties or licences from books published with Guildford Press, American Psychiatric Publishing and Oxford University Press. Any honoraria or payment for lectures, presentations and workshops are sent directly to the Anna Freud National Centre for Children and Families; Peter Fonagy receives no money personally for these activities. Peter Fonagy has leadership or fiduciary roles on the following boards: Honorary Treasurer of the Board of Directors of Psychoanalytic Electronic Publishing (1996–present); Clinical Professor of Psychiatry at Yale University School of Medicine (2004–present); International Panel Member of Academic Health Solutions Ltd (2017–present); Royal Foundation Steering Group for HRH The Duchess of Cambridge Early Years (2018–present); Member of the Board of Directors and Co-chair of the Quality of Care Subcommittee at Silver Hill Hospital, CT, USA (2019–present); National Collaborating Centre for Mental Health Management (2019–present); NSPCC Research Advisory Group (2019–present); Chairperson of The Prudence Trust Mental Health Advisory Panel (2020–present); member of the Remote Working in Mental Health Core Group, Health Innovation Network (2020–present); member of the Higher London Mental Health and Wellbeing network (2021–present), chairperson of the Silver Hill Academic Advisory Board (2021–present), trustee for Mental Health Innovations UK, board member of London Mental Health transformation Board of the Health London Partnership; and chairperson of the NHS Parent Infant Perinatal Pathway. He is also Chief Executive of the Anna Freud National Centre for Children and Families; Director for Mental Health and Behaviour Change Programmes, University College London;

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Published February 2023

DOI: 10.3310/IVCN8847

This report should be referenced as follows:

Wright B, Fearon P, Garside M, Tsappis E, Amoah E, Glaser D, *et al.* Routinely used interventions to improve attachment in infants and young children: a national survey and two systematic reviews. *Health Technol Assess* 2023;**27**(2). <https://doi.org/10.3310/IVCN8847>

Health Technology Assessment

ISSN 1366-5278 (Print)

ISSN 2046-4924 (Online)

Impact factor: 4.014

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This report

The research reported in this issue of the journal was funded by the HTA programme as project number NIHR127810. The contractual start date was in July 2019. The draft report began editorial review in May 2021 and was accepted for publication in September 2021. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health and Care Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, the HTA programme or the Department of Health and Social Care. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, the HTA programme or the Department of Health and Social Care.

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Abstract

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Background: Attachment refers to an infant's innate tendency to seek comfort from their caregiver. Research shows that attachment is important in promoting healthy social and emotional development. Many parenting interventions have been developed to improve attachment outcomes for children. However, numerous interventions used in routine practice have a limited evidence base, meaning that we cannot be sure if they are helpful or harmful.

Objectives: This research aimed to conduct a large-scale survey to identify what interventions are being used in UK services to improve child attachment; conduct a systematic review to evaluate the evidence for parenting attachment interventions; and develop recommendations for future research and practice.

Design and methods: We worked closely with our Expert Reference Group to plan a large-scale survey focused on relevant UK services. We then conducted two systematic reviews. One searched for all randomised controlled trial evidence for any attachment parenting intervention. The second searched for all research for the top 10 routinely used interventions identified from the survey.

Results: The survey collected 625 responses covering 734 UK services. The results identified the 10 most commonly used interventions. The responses showed a limited use of validated measures and a wide variety of definitions of attachment. For the first review, seven studies were included from 2516 identified records. These were combined with results from previous reviews conducted by the team. Meta-analyses showed that, overall, parenting interventions are effective in reducing disorganised attachment (pooled odds ratio 0.54, 95% confidence interval 0.39 to 0.77) and increasing secure attachment (pooled odds ratio 1.85, 95% confidence interval 1.36 to 2.52). The second review

ABSTRACT

searched the literature for the top 10 routinely used interventions identified by the survey; 61 studies were included from 1198 identified records. The results showed that many of the most commonly used interventions in UK services have a weak evidence base and those with the strongest evidence base are not as widely used.

Conclusions: There is a need for better links between research and practice to ensure that interventions offered to families are safe and effective. Possible reasons for the disparity include the cost and accessibility of training. There is also a need for improved understanding by professionals regarding the meaning of attachment.

Limitations: Although the survey had good geographical spread, most respondents were based in England. For review 2 we were unable to access a large number of papers; however, we conducted extensive reference checking to account for this.

Future work: There is a need for robust research to test the efficacy of routinely used attachment interventions. Research could also explore why routinely used interventions are not consistently subject to thorough evaluation; how to embed dissemination, cost-effectiveness, fidelity and sustainability into research; and how to keep clinical practice up to date with research developments.

Study registration: This study is registered as PROSPERO CRD42019137362.

Funding: This project was funded by the National Institute for Health and Care Research (NIHR) Health Technology Assessment programme and will be published in full in *Health Technology Assessment*; Vol. 27, No. 2. See the NIHR Journals Library website for further project information.

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List of supplementary material

Report Supplementary Material 1 Information sheet

Report Supplementary Material 2 The survey

Supplementary material can be found on the NIHR Journals Library report page (<https://doi.org/10.3310/IVCN8847>).

Supplementary material has been provided by the authors to support the report and any files provided at submission will have been seen by peer reviewers, but not extensively reviewed. Any supplementary material provided at a later stage in the process may not have been peer reviewed.

List of abbreviations

ABC	Attachment and Biobehavioral Catch-up	OR	odds ratio
ADHD	attention deficit hyperactivity disorder	PICOS	populations, interventions, comparisons, outcomes, settings
AQS	Attachment Q-Sort	PIP	Parent-Infant Psychotherapy
ASD	autism spectrum disorder	PPI	patient and public involvement
ASQ	Ages and Stages Questionnaire	PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
CAMHS	child mental health services	RAD	reactive attachment disorder
CI	confidence interval	RDAQ	Randolph Attachment Questionnaire
COS	Circle of Security	RCT	randomised controlled trial
CPP	Child-Parent Psychotherapy	ROB-2	Revised Risk of Bias Tool for Randomised Trials
DDP	Dyadic Developmental Psychotherapy	ROBINS-I	Risk Of Bias In Non-randomised Studies – of Interventions
EAS	Emotional Availability Scale	SDQ	Strengths and Difficulties Questionnaire
ERG	Expert Reference Group	SSP	Strange Situation Procedure
HTA	Health Technology Assessment	TIDieR	Template for Intervention Description and Replication
ICP	Individual Child Psychotherapy	VIG	Video Interaction Guidance
LA	local authority	VIPP	Video Feedback to Promote Positive Parenting
MIM	Marschak Interaction Method	WWW	Watch, Wait, Wonder
MORS	Mothers' Object Relations Scales		
NICE	National Institute for Health and Care Excellence		
NSPCC	National Society for the Prevention of Cruelty to Children		

Plain English summary

Attachment refers to an infant's natural instinct to seek comfort from their main carers. There are four ways in which infants show attachment ('attachment patterns'). These are known as secure, insecure-avoidant, insecure-resistant and disorganised. Secure attachment usually occurs with consistent and responsive parenting/caregiving and is linked with positive social and emotional child development. Inconsistent, neglectful or abusive parenting/caregiving can lead to problems with attachment, including disorganised attachment, and is linked to poorer outcomes. Parenting support, education and therapies help parents improve infant attachment and their child's outcomes.

We surveyed UK services to see what they offered families with attachment problems. A total of 734 UK services responded. This identified 10 therapies or support packages most commonly offered to parents. We checked what research had been done on these. We found very little. We found 61 studies of support packages with quite good evidence, but these were generally not ones offered by UK services.

We also looked in detail at research for all types of support/therapies to improve attachment. We looked for the best research (called 'randomised controlled trials'); 26 studies had tested therapies to see if they improved secure attachment and 20 had tested whether or not they improved (i.e. reduced) disorganised attachment. We found that these therapies or support packages are good at increasing secure attachment and improving disorganised attachment. Mostly they did this by helping parents/caregivers improve caregiving and particularly how sensitive and responsive they are to their child and their needs.

Currently, practice is not following research, and research is not being done to properly evaluate current practice. We need to improve the evidence and the way it links to practice, including how those organising and paying for services are made aware of up-to-date research to make sure that the best treatments are available. High-quality training for staff is also important.

Scientific summary

Background

Attachment refers to a specific aspect of a relationship between a child and their caregiver that serves to make the child feel safe. Four attachment 'patterns' are used to classify infants' attachment relationships into categories: 'secure', 'insecure resistant', 'insecure avoidant' and 'disorganised'. Having a secure attachment pattern allows an infant to develop in an environment where they are able to explore from a secure base and adapt to threatening situations knowing that a safe haven (their caregiver) is in close proximity. Not all children have secure attachments to their caregivers, and research highlights the potential negative impact that 'disorganised' and, to some extent, 'insecure' attachment patterns can have on an individual's development. Some children raised in extremely insufficient caregiving circumstances may also develop disordered attachment, which is characterised by a pervasive absence of, or an impairment in, attachment behaviour to caregivers, and places the child at high risk of poor adaptation and has an impact on the child's social and emotional development and their mental health.

A range of parenting interventions have been developed that aim to promote secure attachment, reduce disorganised attachment patterns or reduce severe attachment problems. However, it appears that many interventions that are routinely used in clinical practice do not have a high level of evidence [e.g. randomised controlled trials (RCTs)] behind them. It is important that such interventions are robustly evaluated to determine their effectiveness and safety.

There is a need to investigate which attachment-focused interventions are currently used in UK practice and to then examine the evidence regarding their efficacy, as well as to identify which interventions have been tested in RCTs.

Objective

The main aim of the current study was to identify interventions that are routinely used to improve attachment in infants and young children and to examine the evidence for their use.

This research aimed to:

1. conduct a large-scale survey to identify interventions that are routinely used in the UK to improve the quality of attachment relationships to parents/caregivers
2. conduct a systematic review to evaluate the evidence supporting these manualised interventions, and other parenting interventions for children with (or at risk of) severe attachment problems
3. develop recommendations for future clinical trial research on the effectiveness of commonly used interventions that lack a robust evidence base.

Method

Phase 1 consisted of a large comprehensive UK survey of organisations that provide interventions for children aged 0–13 years who are at an increased risk of or have serious attachment problems in order to identify commonly used manualised interventions and referral practices for attachment problems.

Phase 2 consisted of two systematic reviews. The first updated a previous published systematic review conducted within the team, identifying RCT evidence of parenting interventions aimed to reduce disorganised attachment or increase the rate of secure attachment between infant and caregiver. Second, we reviewed all of the available research evidence on the commonly used manualised interventions collected from the survey in phase 1.

For the two parts of the systematic reviews, a search was conducted across 15 databases, including EMBASE, ERIC, MEDLINE and PsycInfo. Different screening criteria and different data extraction methods were used for the two elements of the systematic review work. We followed the methods outlined by the Centre for Reviews and Dissemination and the Cochrane Collaboration. For the first review we examined RCT evidence from 2016 to the present date as an update to our last review in order to evaluate the effectiveness of parenting interventions used to improve attachment patterns. The most recent version of the Cochrane risk-of-bias tool was used to carry out a quality assessment of the final included studies. The second review investigated all of the available research evidence on the 10 identified routinely used interventions, regardless of study design. These 10 interventions were identified from the UK national survey that we distributed during phase 1. As the second review included all study designs, quality assessment was conducted using the Cochrane risk-of-bias tool for RCTs and the Risk Of Bias In Non-randomised Studies – of Interventions (ROBINS-I) tool for all other studies. We did not quality assess case studies and case series designs.

Results

Survey

We received 625 responses from 734 services across all four nations of the UK. From the survey responses we identified the 10 most commonly used attachment interventions, which in turn informed the focus of the systematic review.

The survey collected information on measures used to assess attachment, a wide range of additional interventions, the training that professionals received and the way in which professionals defined attachment. This highlighted the limited use of standardised tools for assessing attachment and a lack of consistency in the use of the term attachment, with respondents providing a wide variety of definitions. The inconsistent use of the term attachment may have adverse effects on practitioner reports and recommendations for treatment and on the quality and appropriateness of interventions offered to children.

Systematic review 1

Interventions to increase the rate of secure attachment

Out of the seven new studies identified, all seven were RCT studies focused on increasing the rate of secure attachment. As this was an update of a previous review, a meta-analysis was conducted with the final studies found in this review, combined with the studies found in the previous review, meaning that there were 26 RCTs in total that aimed to increase rates of secure attachment. A meta-analysis revealed that, overall, attachment-focused parenting interventions significantly increase the rate of secure attachment ($p < 0.001$) [pooled odds ratio (OR) 1.85, 95% confidence interval (CI) 1.36 to 2.52]. There were no significant effects in terms of the number of sessions ($p = 0.07$), if video feedback was used ($p = 0.55$), the age of the child ($p = 0.43$) and whether or not a male caregiver was included ($p = 0.30$).

Interventions to reduce disorganised attachment patterns

Out of the seven new studies identified, six RCTs focused on decreasing disorganised attachment. These were combined with those included studies in the previous review, giving a total of 20 RCTs in the meta-analysis. The results showed that, overall, attachment-focused parenting interventions

significantly reduce disorganised attachment ($p < 0.001$) (pooled OR 0.54, 95% CI 0.39 to 0.77). There were no significant effects in terms of the number of sessions ($p = 0.14$), if video feedback was used ($p = 0.51$), the age of the child ($p = 0.14$) and whether or not a male caregiver was included ($p = 0.63$).

Systematic review 2

Interventions for attachment used in routine UK practice

Overall, we identified 61 studies meeting our criteria that used one of the 10 most commonly used attachment-based interventions identified in our survey. Video feedback to promote positive parenting had the strongest evidence base, with 17 overall research studies and 15 RCTs. Attachment biobehavioural catch-up had the second-strongest evidence base, with 11 RCTs. This contrasts with the survey results, which showed that these two interventions were the least commonly used among the top 10 interventions in the UK. Notably, the most commonly used interventions, including Individual Child Psychotherapy, Dyadic Developmental Psychotherapy and Theraplay, had little to no currently available published research evidence regarding their efficacy.

Implications for research

Taking into consideration the results from both of our reviews, we identified gaps in the literature that suggest important areas for future high-quality research. There is good evidence that attachment in infancy is a potential predictor of future relationships and individual qualities. It is also evident that disorganised attachment patterns can be reduced and secure attachment patterns can increase with effective interventions, mainly employing interventions that focus on promoting sensitive caregiving. Many interventions that are found to be used in UK services have a limited amount of evidence of efficacy, so there is an urgent need to conduct robust research on these interventions, including RCTs.

Implications for practice

There is an extensive body of evidence to suggest that certain types of attachment interventions are effective and should be employed in practice. Many interventions identified are aimed at improving parenting sensitivity, which has been found to be a significant predictor of attachment security. It is also important to assess attachment in services using validated measures. The availability of evidence-based attachment interventions in the UK is limited, despite good evidence and the recommendations of the National Institute for Health and Care Excellence in 2015. The finding of a less rigid and inconsistent understanding of attachment among professionals can have an impact on the delivery of interventions. Our collaboration and involvement from our Expert Reference Group and patient and public involvement workshops has shown that practice is limited by access to training and robust measures, which can often have a high cost and be time-consuming. A more structured approach to the use of interventions for attachment, and to testing and routinely monitoring these interventions, is needed.

Ethics statement

The survey was conducted in accordance with the University College London Code of Conduct for Research and was approved by the University College London Research Ethics Committee prior to data collection (project ID 16687/001, approval granted 18 November 2019).

Study registration

This study is registered as PROSPERO CRD42019137362.

Funding

This project was funded by the National Institute for Health and Care Research (NIHR) Health Technology Assessment programme and will be published in full in *Health Technology Assessment*; Vol. 27, No. 2. See the NIHR Journals Library website for further project information.

Chapter 1 Background

Attachment

Attachment theory, originally developed by John Bowlby, focuses on understanding the functional significance of the distress that infants experience when alarmed, frightened or very uncomfortable and how they deal with that distress. Attachment, then, refers to the proximity-seeking of an attachment figure by the infant when they are alarmed or frightened, with the anticipation that they will receive a caregiving response. Bowlby conceptualises it as the 'lasting psychological connectedness between human beings'.¹ An attachment figure tends to be the primary caregiver of an infant, someone the infant can seek out when they are distressed.

Bowlby's attachment took an explicitly evolutionary perspective when seeking to understand these phenomena; Bowlby suggested that infants are born with an innate instinct to form attachments with their caregiver.² The proximity that infants seek is thought of as a mechanism that increases fitness and improves the chances of survival; they produce behaviours to gain attentive responses and protection from their caregiver, particularly pertinent at times of threat.

Two concepts are particularly central to attachment theory: a secure attachment develops as the product of interactions between infant and caregiver. These interactions are the result of care-seeking and caregiving behaviours. It is thought that caregiving behaviours also serve a biological function, that of protecting the attached individual from psychological and physical harm.³ Care-seeking (i.e. attachment) behaviours are apparent in the first few months of an infant's life and become most clearly apparent at around 7–9 months of age. Prior to this, attachment behaviours initially encourage proximity in general, but in the second half of the first year these behaviours become directed towards individual attachment figures,⁴ and it is at this point that selective attachments can be unambiguously identified.

A second key concept is that the quality of a child's attachment underpins, in part, their later development. An infant's instinct to seek a recognised caregiver for safety and security is vital in promoting healthy social and emotional development.¹ Although attachment acts as a predictor of later individual differences in socioemotional development, and is thought of as a cause of these differences, there is no evidence to suggest that attachment relationships cannot be altered.² For example, an insecure attachment relationship at 12 months can later change to a secure one, and this is likely to be associated with better outcomes subsequently.

Attachment patterns

The quality of an infant-caregiver attachment relationship is assessed by observing their attachment behaviours, and these can be categorised as attachment patterns.⁵ To assess attachment patterns, the Strange Situation Procedure (SSP), proposed by Mary Ainsworth, was developed, which initially identified three attachment patterns present in infants.⁶ These patterns represent the ways in which infants behave when they are anxious and search for protection, which are believed to be innate but are shaped partly by the infant's history of interactions with the caregiver, and particularly by how the caregiver has responded to the infant's bids for comfort and contact. 'Secure attachment (B)' refers to infants who actively seek proximity to their caregiver, and although they may be distressed during separation they seek contact actively when the caregiver returns, and, once settled, they are happy to return to exploring on their own.⁷ This attachment pattern is likely the result of sensitive and consistent caregiver responses. By contrast, 'insecure avoidant (A)' infants may cry little during separation and do not seek proximity on reunion. This is thought to be a consequence of previous

emotional unavailability at the moment when the child has signalled emotional need. Last, an infant with an 'insecure resistant (C)' pattern constantly seeks reassurance and tends to cry and resist comfort, this pattern occurring largely as a result of unpredictable caregiving behaviour.⁷ The term 'disorganised attachment pattern' was introduced by Main and Solomon⁸ to describe infants who do not fall into one of the A, B and C categories. Instead, these infants show distorted, conflicted and contradictory behaviours in the strange situation.⁹ This attachment pattern and, to a lesser extent, 'insecure' attachment patterns have been associated with psychopathology later in life¹⁰ and act as significant predictors of mental ill-health.¹¹

In normative populations across different countries, the majority of children have a secure attachment pattern.¹² The distribution of insecure patterns in normative samples varies with culture.

'Severe attachment problems' can be defined as disorganised attachment patterns or attachment disorders.¹³ In recent policy guidance, disorganised attachment and attachment disorders [e.g. reactive attachment disorder (RAD)] have been referred to as 'severe attachment problems' to indicate their clinical significance and differentiate them from more normative patterns of avoidance and resistance. According to the National Institute for Health and Care Excellence (NICE) guidelines,¹⁴ attachment disorders include RAD, or a disinhibited attachment disorder, which is now termed 'disinhibited social engagement disorder' (DSM-5).¹⁵ Children with RAD often do not seek proximity when they feel distressed and do not acknowledge comforting caregiving behaviours, often behaving in a withdrawn manner.¹⁴ These children also show a lack of positive interaction with and emotions towards others. The diagnosis of RAD requires evidence of experiences of severe neglect or multiple different caregivers, with the behaviours being present before the age of 5 years.¹⁴ Disinhibited attachment disorder in DSM-IV has been replaced by 'disinhibited social engagement disorder' in DSM-5.¹⁵ The main characteristics of this disorder are active approaches towards and overfamiliar interaction with unfamiliar adults, with reduced or absent reticence; diminished or absent checking back with an adult caregiver after venturing away, even in unfamiliar settings; and willingness to go off with an unfamiliar adult with minimal or no hesitation. This is thought to be based on the lack of development of stranger awareness due to early extreme neglect or care by multiple different caregivers, similar to RAD.

Attachment and maladaptation

Research has found a significant association between early attachment classification and children's developmental outcomes.¹⁶ For instance, a longitudinal study from infancy to childhood found that a higher rate of antisocial behaviour in preschool was seen in children with an insecure attachment pattern than in those with a secure attachment pattern.¹⁷ Insecure/disorganised attachment patterns are associated with more common major mental health disorders such as depression and personality disorders.^{10,18,19} Early studies provided evidence that insecure attachment, specifically insecure avoidant attachment, is a predictor of later antisocial behaviour and anxiety disorders.²⁰

Meta-analyses have revealed significant and robust but modest associations between avoidant attachment and lower social competence, higher levels of internalising problems and higher levels of externalising problems; and between resistant attachment and lower social competence.¹⁶ Fearon *et al.*²¹ have shown a significant association between insecure and disorganised attachment patterns in infancy and later externalising behaviour problems. Disorganised attachment has associations with specific maladaptive behaviours later in life. Some infants with disorganised attachment develop controlling behaviour, either punitive or caregiving, towards their parents in middle childhood.^{11,22} Disorganised attachment is specifically linked to internalising and externalising behaviour problems in early school years and at 6 years old.^{23,24} Similarly, a large-scale longitudinal Minnesota study²⁵ found that disorganisation was linked to internalising behaviour problems in middle childhood and psychopathology at 17 years of age.

Secure attachment is accompanied by more positive outcomes across the lifespan, including better peer relationships, more independence and fewer behaviour problems.^{16,21,26–28}

Influences on attachment patterns

The quality of care during the first years of life and the continuity of this care are predictors of adaptation through childhood and adolescence.²⁹

A vital factor found to affect attachment is whether or not the caregiver provides consistent and attuned interactions when the infant requires them. Inconsistent responses can affect the quality of attachment relationships. Maternal sensitivity as a response to infant cues has been found to be a predictor of a secure attachment classification globally.^{30,31} Parenting practices such as maternal responsiveness and sensitivity are associated with reduced severe attachment difficulties.^{32,33}

The opportunity for secure attachment is reduced in a number of populations, especially those who have been maltreated and/or are living in alternative care. Those living in alternative care such as foster care or institutions differ in terms of attachment pattern from those living with non-maltreating biological or adoptive families.³⁴

Assessing attachment

Strange Situation Procedure

Attachment patterns can be assessed through observational procedures such as the SSP.⁶ The SSP was the first assessment of attachment patterns, developed by Ainsworth and Wittig.⁶ The procedure involves a direct observation of the interaction between an infant, their caregiver and a stranger. In an eight-episode sequence, the infant interacts with the caregiver while an experimenter is in the room; the infant and caregiver are left alone; a stranger then walks in; the caregiver leaves the infant alone with the stranger; the caregiver returns to the room and the stranger leaves; the caregiver exits and leaves the infant on their own; the stranger returns; and finally the stranger leaves and the caregiver enters. During the sequence, the interactions between the infant and the caregiver are observed partly in terms of how the infant responds to separation from the caregiver, but mainly when reunited with the caregiver. The interaction between the infant and stranger is not measured; the stranger is there purely to act as a stressor. Ainsworth and Wittig described three attachment patterns resulting from these observations: secure attachment, insecure resistant attachment and insecure avoidant attachment. A fourth pattern, as described previously, is 'disorganised attachment',⁹ which appears to be a predictor of psychopathology.^{13,25}

The validity of the SSP has been found to be similar among western cultures; however, there are potentially cross-cultural differences in less westernised populations.¹²

Attachment Q-Sort

The Attachment Q-Sort (AQS) is also used to assess attachment security. The AQS was developed to better define secure base behaviour in a non-stressful environment at home. This assessment can also be used with preschool children.³⁵ There are two AQS assessments: observer and self-reported. A meta-analytic study³⁶ has established that the observer AQS shows convergent validity with the SSP and predictive validity with measurements of maternal sensitivity.

Other assessments

Interviews such as the Child Attachment Interview have been used to capture a child's account of their relationship with their parents; this is an adaptation of the Adult Attachment Interview for use with children aged 7–11 years.³⁷ The Disturbances of Attachment Interview is administered to caregivers and is used to assess attachment disorders in children.³⁸

Other questionnaires are also used in attachment research.¹³ For example, the Randolph Attachment Questionnaire (RADQ)³⁹ assesses the presence of symptoms related to attachment disorders,⁴⁰ although it includes several questions that are not directly related to the construct of attachment and so lacks specificity.⁴¹

As mentioned previously, the most consistent predictor of attachment is caregiver sensitivity.⁴² A large number of instruments are designed to assess sensitivity. The original sensitivity assessment was developed by Mary Ainsworth.⁵ Since then, numerous similar instruments have been developed and validated. For example, the Infant Care Index has a similar format to other observational methods, whereby a play interaction between infant and caregiver is coded and caregiver sensitivity is one construct that is measured.⁴³ This is not, however, designed to assess attachment. Similarly, the Emotional Availability Scale is used to code caregiver sensitivity during infant–caregiver interaction.⁴⁴

Current treatment approaches

Interventions largely focused on improving caregiver sensitivity have been developed to reduce disorganised attachment and promote secure attachment.⁴⁵ Research has shown that attachment-focused interventions are effective.^{13,46–48} Interventions focusing on parental sensitivity are found to be effective in reducing disorganised and insecure attachment, more so than broader interventions.⁴⁹ The NICE guidelines on attachment, published in 2015, recommend video feedback as an intervention. This involves video-recording the parent–child interaction, with feedback about the interaction and then further guidance on improving caregiver sensitivity, for example Video Feedback to improve Positive Parenting (VIPP) or Video Interaction Guidance (VIG).¹⁴ It is important to thoroughly examine the evidence behind recommended interventions to inform practice.

Study summary

The present study comprises both a national survey and two comprehensive systematic reviews. First, a survey was utilised to map the UK services currently delivering attachment interventions to families and then a scoping of the literature was conducted to identify common and effective interventions for attachment problems in infants and young children, which was followed by two systematic reviews. The study encompasses three stages. The first involved preparatory work to establish a stakeholder group and Expert Reference Group (ERG) to advise us throughout the study. This group included patient and public involvement (PPI) representatives, those working directly with families with lived experience, researchers, academics, teachers, clinicians and charities and third-sector organisations. Second, a large-scale national survey was distributed to establish the attachment treatments used currently in UK services. In stage 3, a systematic review on interventions for children with or at risk of attachment problems was conducted and evidence for the commonly used interventions was sought.

Study rationale

It is essential that UK services employ the most effective interventions to improve child–caregiver attachment. There is a need for clarification about which manualised interventions are currently used to improve attachment in infancy and to explore the evidence base for their effectiveness. This is a complex area to review, because there are significant problems with the usage of attachment terms and concepts in routine practice, and diverse interventions are used for a wide range of children with the stated aim of promoting security of attachment. We also note that there is poor availability of evidence-based interventions in UK health and social care, which suggests both the need to identify and disseminate evidence-based approaches and the need to evaluate interventions that have a strong foundation in current services but for which good evidence is lacking.

The lack of evidence supporting interventions for attachment is a significant problem because resources in child mental health services are already limited.⁵⁰ Without thorough research, we do not know whether existing interventions are clinically effective, safe or used in appropriate population groups, and they may not be cost-effective if they are time-consuming and/or ineffective. This could cause a potential waste in resources or, even worse, harm to the well-being of children and their families. Therefore, it is important that interventions showing a good research evidence base are utilised to provide the most effective services. There are also challenges in the appropriate assessment of attachment for supporting referrals and for routine outcome monitoring, with few evidence-based, reliable and valid tools that clinicians can use. This research also investigates which assessment tools clinicians/practitioners working with children with attachment difficulties use to assess attachment security and attachment disorders.

Study aims and objectives

This research aims to:

1. conduct a large-scale survey of the structured interventions that are routinely used across UK services to improve child attachment to their caregiver
2. carry out a systematic review to carefully assess the research that supports these manualised interventions and other parenting interventions for children with (or at risk of) severe attachment problems aged 0–13 years
3. develop recommendations for carrying out future clinical trial research on the effectiveness of those commonly used interventions that have not been properly tested in the past.

Chapter 2 Methods

Survey

Overview

We undertook an online survey to identify the interventions that services currently deliver to support children with or at risk of disorganised attachment patterns or attachment disorders in the UK (aim 1). This survey focused on relevant UK services [including local authorities (LAs), child and adolescent mental health services (CAMHS), voluntary agencies, education services, fostering and adoption agencies and health visiting services] and collected details about the interventions used for these attachment problems. The results from the survey informed the systematic review. This allowed the research team to robustly evaluate the existing evidence behind routinely used attachment interventions.

Ethics considerations

The survey was conducted in accordance with the University College London Code of Conduct for Research and was approved by the University College London Research Ethics Committee prior to data collection (project ID 16687/001; approval granted 18 November 2019). Only the research team could access the data, which were held on a secure server. Informed consent was obtained from all respondents. The information necessary to make informed consent was included in an information sheet (see *Report Supplementary Material 1*), which details the survey aims and the content and length of the survey, and gives data protection and storage information. Respondents were able to begin the survey only once they had read the information sheet. Respondents had to indicate their consent online to be able to complete the survey. Those respondents who had not indicated that they had read the information sheet and/or given their consent skipped to the end of the survey and provided no data for the survey results. All data were provided anonymously, and all respondents were given careful instructions not to reveal any personally identifying information concerning themselves or their client(s). All free-text responses were checked by the research team to ensure that no individuals had been inadvertently identified in participant responses.

Questionnaire development

Methods for designing survey

The survey was designed in consultation with the ERG and subject to modification after an initial pilot study. The questionnaire is in *Report Supplementary Material 2*, and it has the following section headings:

- section 1 – consent
- section 2 – about your work
- where you work (nature of service setting)
- your work supporting attachment (summary of children seen, referrers)
- section 3 – therapeutic practice to support secure attachments (use of cross-package therapeutic techniques for promoting attachment)
- section 4 – specific attachment intervention packages.

Development of general survey structure

A checklist was created to capture information about commonly used attachment interventions and techniques. When planning this work, we were aware of two significant problems that may affect the interpretation of the survey results. The first is that clinicians vary in their understanding of what an attachment problem is and what (if any) reliable tool they use for assessment; some therapists may also use eclectic practice rather than manualised interventions, combining treatment elements from several different approaches. A simple list of interventions on its own might therefore miss important

elements of practice. Following the work of Chorpita *et al.*,⁵¹ the research team drew on a taxonomy of common treatment elements of attachment interventions, cross-referenced against intervention manuals. We used this knowledge of treatment elements identified within those therapies to help design the survey to capture routine practice on the ground beyond, or in addition to that captured by, named intervention programmes. We also provided respondents with an opportunity to describe, in their own words, what the term attachment meant in terms of their practice.

Generation of intervention list

The survey listed a set of attachment-focused interventions identified by the ERG, by representatives from the research team's network of partner organisations working in the attachment domain and from previous systematic reviews of attachment-focused interventions. Interventions had to be used for work directly with children and/or work with parents and caregivers. The research team took advice from the ERG, tapping into extensive links and networks with families, voluntary agencies, clinicians, services and experts, and scoping of published research, to identify interventions used to address attachment problems with families. Advice was sought from those who attended the first ERG meeting to inform the survey design. The survey itself also included open-text fields for services to specify any interventions they were using that were not already listed.

Detailed information about interventions and techniques

For each intervention that the respondent endorsed having used in the previous year to address attachment-related difficulties, the survey requested information concerning the number of children, approximately, to whom they had provided the intervention, what training they received, whether supervision was provided to deliver the intervention, any changes to the approach and how the outcome of the work was assessed. We were guided by the Template for Intervention Description and Replication checklist.⁵² This included information regarding:

- the typical number of sessions
- core practice procedures and materials
- mode of delivery (individual child face to face, individual parent face to face, working jointly with parent and child, parent or child groups, telephone contact with parent).

The common elements that were used to identify attachment-focused techniques (beyond any named interventions) were modelling sensitivity; supporting parent-child interaction; exploring mental representations of attachment; education and guidance; and 'other'. Sixteen individual practice elements were identified within these five themes. For example, 'in vivo feedback of attachment interactions', 'video-feedback of positive interactions' and 'tools to stimulate reflection on own parenting history' were subsumed under the parent-child interaction theme. Each of these elements was accompanied by a textual description of what the intervention element consists of, and respondents were asked to endorse whether or not this element formed part of their practice with children who have attachment difficulties. For example, the element referred to as 'raising attachment awareness' was accompanied by the following text from the review manual:

The therapist provides suggestions/recommendations/guidance to the parent on attachment-related constructs. Attachment-related constructs would include matters relating to the parent's sensitivity and responsiveness to the child's cues and needs. This includes joint observation of the child/infant during intervention sessions, and raising the parent's awareness of the importance of attachment, and healthy parent-child relationships.

Inclusion criteria

The study was designed to capture a broad range of practice and, therefore, the sole inclusion criterion for the survey was that UK-based practitioners had to work therapeutically with children (aged 0-13 years) with or at risk of attachment difficulties and/or their caregivers. The age range for

children was selected as 0–13 years as this study was a follow-up to previous work that involved children in this range.¹³ The age range was relatively wide to capture all children and child groups of interest in clinical practice. The survey asked respondents to base their responses on therapeutic work they had carried out in the last 12 months. There was no minimum number of children with whom practitioners were required to have worked across this timescale. In addition, respondents had to do only some proportion of their therapeutic work with children who have attachment difficulties. The survey focused only on face-to-face working and excluded online provision as a result of discussion with the ERG.

Ethics-informed questionnaire development

Ethics approval was obtained prior to commencement of the research. As per this approval, the information collected was kept in accordance with the Data Protection Act 2018,⁵³ GDPR (General Data Protection Regulation) and University College London standard operating procedures.⁵⁴ Information was stored and archived by University College London. Survey responses were anonymous. We requested in the information sheet that respondents did not supply any personal information or information that could identify another person. In addition to this, the research team reviewed the data in open-text fields to ensure that no personal information had been supplied inadvertently. The survey asked respondents to select the type of organisation and service they worked in, as well as their role, using predefined dropdown lists. Respondents could also specify and write this information in open-text fields if the appropriate response had not been included in the predefined lists. The survey asked respondents for their service location in order to geographically map service provision. Respondents could include the name of the service(s) they worked in, but this was not mandatory.

Respondent pathway

The survey was built online using the secure data platform REDCap (Research Electronic Data Capture, version 8.5.27).⁵⁵ The questions were ordered to follow two pathways: one for respondents who worked in only one service and one for respondents who worked in multiple services (a respondent could describe up to two services they worked in). The survey was distributed over six screen pages. Respondents had to answer the majority of questions, in turn, in order to progress, although some questions did not require an answer and respondents were given the option to write 'not applicable'. Respondents were able to review and change their answers using 'previous' and 'next' buttons, and monitor their progress through the questionnaire with a 'page 1 of 6' page indicator display.

Pilot

A small-scale pilot was conducted with the project team members, colleagues and practitioners to assess the survey's usability and technical functionality, and minor changes to the survey format and wording were implemented as a result.

Survey distribution

Generation of list of services/providers to be surveyed

The draft survey was reviewed by the ERG before it was deployed in the pilot study and the final large-scale mail-out. In addition, after a consultation with the ERG, a comprehensive contact list of services and providers to be surveyed was generated based on previous work that mapped intervention delivery in services and organisations across the UK.

Modes of distribution

After refinements, the survey was delivered online using REDCap, with optional paper fill-in and face-to-face meetings if requested by respondents. The survey was distributed as an open survey link via e-mail invitation that included information about the study and promotional materials such as flyers in addition to information regarding social media. Flyers were also distributed at conferences and events.

Survey procedure

Participation was voluntary and no incentives were offered or passwords required to complete the survey. The first distribution e-mail and post on social media were conducted in January 2020; reminder e-mails and social media posts were sent after distribution and the survey was closed in June 2020. The research team judged that the 625 responses received by the end of June 2020 provided sufficient data to meet the aim of this phase of work.

Types of providers and services covered

The survey covered a substantial range of providers supporting children with attachment difficulties in the UK. Furthermore, the data collected from the survey were supplemented by service-level responses from managers in both services and Clinical Commissioning Groups. We wanted to reach all types of services that work with children aged 0–13 years with or at risk of attachment problems and/or their caregivers. Attachment interventions occur in a range of organisations, and so the following were contacted: NHS, LA, voluntary sector (including organisations specialising in relevant areas such as attachment and perinatal mental health working with children, parents, mothers, and families), education (including schools and virtual schools), private provider organisation, individual private practice and social enterprise. In addition to this, we contacted a large array of service types in these organisations, including general practitioner/primary care, CAMHS, child health disability service, looked-after children's service, adoption/fostering service, parent advice/information service, child safeguarding team/service, perinatal mental health service, health visiting service, midwifery service, specialist education (e.g. teacher of the deaf, specialist preschool/nursery service), counselling service, and parent-child support service/family centre/children's centre. Numerous roles were covered, including clinical psychologist, counselling psychologist, educational psychologist, psychiatrist, nurse, health visitor, social worker, family therapist, psychotherapist and other therapist (e.g. art, drama, play, music). Respondents also had the opportunity, using open-text boxes, to specify any other relevant organisation, service type and role in relation to the service they worked in.

Survey dissemination

The survey was circulated to relevant practitioners including a large Learning Network at the Anna Freud National Centre for Children and Families (AFNCCF) linking professionals and stakeholders (including families) with an interest in child mental health. The AFNCCF is also home to the Children and Young People Improving Access to Psychological Therapies (CYP IAPT) collaborative of collaboratives, consisting of all CYP IAPT CAMHS. CAMHS services were also contacted via the Anna Freud Centre's Youth Well-being Directory. We also contacted a range of other networks identified through our Expert Reference Group, including the DDP Network, Attachment Parenting UK, iHV and The Fostering Network. In addition to this, we worked closely with Parent-Infant Partnership UK, which has recently undertaken its own mapping exercises in relation to partially overlapping parent-infant services for children, which was used to supplement our initial longlist.

All NHS UK trusts and social care/LAs were mapped, identifying senior managers in services and contacts including NHS England and its Clinical Commissioning Groups in England, Health Boards in Scotland and Wales, and the Health and Social Care Board in Northern Ireland. We worked directly with service leads, who distributed the e-mail invitation to all practitioners working with children aged 0–13 years. In addition to this, directories such as the National Directory of NHS Research Offices and the Contact, Help, Advice and Information Network (CHAIN), an online network for people working in health and social care, were used to supplement our list. Furthermore, we contacted the heads of communication teams in NHS trusts to ask them to disseminate the survey to key departments and workers and include the survey e-mail invitation in internal communications such as newsletters and intranets. The e-mail invitation was also distributed through professional organisations to their members via mailing lists and newsletters such as relevant professional bodies/groups, including (but not exclusive to) the British Psychological Society, Royal College of Psychiatrists, the Royal College of Nursing, the British Association of Social Workers, the Association for Family Therapy and Systemic Practice, the Association of Child Psychotherapists, the British Association of Art Therapists,

the British Association of Play Therapists, the Association of Directors of Children's Services Ltd, the Consortium of Voluntary Adoption Agencies and the Consortium of Adoption Support Agencies. This was especially important for reaching private providers.

Social media coverage

To ensure widespread coverage, social media platforms were used to reach potential respondents who would be missed by these sampling methods (e.g. if the services were relatively new or less well known or networked private providers). We used feeds via Twitter (Twitter, Inc., San Francisco, CA, USA, www.twitter.com), Facebook (Facebook, Inc., Menlo Park, CA, USA, www.facebook.com) and Instagram (Facebook, Inc., Menlo Park, CA, USA, www.instagram.com) to raise awareness of the project, explain the research methods being used and promote practitioners' involvement in the survey. Social media was also used to raise awareness that the survey was live. This was followed up with reminders and messages about the value and importance of receiving responses from as many different practitioners as possible. The project-specific account was set up as Attachment Matters Study @Attachment2020 across Twitter, Facebook and Instagram. Tweets and posts were sent to followers to encourage their involvement in the study and provided information about the different elements of the project as these progressed. Social media accounts 'followed' relevant individuals and charitable and professional organisations to raise visibility and encourage reciprocal links and followers. Details of the social media accounts was sent to relevant networks, organisations and charities as well as being featured on flyers for the project for general awareness-raising. Shortly after the closure of the survey, the Twitter account had gained 771 followers, the Facebook account 222 followers and the Instagram account 162 followers. After the initial wave of survey promotion, the social media posts focused on the next steps after the closure of the survey. The social media accounts remained live after the survey ended as they formed part of the dissemination strategy for the final results. In addition to this, the survey was publicised on a large number of relevant organisation websites/blogs/newsletters, Facebook groups, and Twitter and Instagram accounts, for example newsletters, websites and social media platforms for AIMH, Home-Start UK, Family Action, and PANDAS Foundation.

Data collection and modes of analysis

Analysis of results overall

Quantitative data from the online survey were analysed using Microsoft Excel, the primary purpose of which was to produce descriptive statistics relating to the background information of respondents and interventions offered. Qualitative data from the survey's free-text sections were subject to thematic analyses. Free-text comments were placed under the headings of the original questions. These were then grouped into clusters of thematically related topics and distinct topic clusters for further analysis. A narrative summary was drafted related to each cluster of topics. In this way, the themes presented in *Chapters 3 and 4* were defined and the findings were drafted. Once the results had been analysed, a report was created detailing the UK services providing interventions; where these services were located, both geographically and organisationally; and the number of children practitioners had worked with over the last year.

The thematic analysis process involved six phases: familiarisation with the data, coding, generation of the initial themes, a review of themes, defining and naming themes and drafting the findings. There was movement back and forth between the phases. These phases facilitated the rigorous process of data interrogation and arrangement.

Familiarisation with the data

The research team underwent the process of familiarisation to obtain a thorough overview of all of the qualitative data collected before the analysis of individual items, which involved reading through the text and taking initial notes.

Coding

The free-text survey responses were placed under the headings of the original questions. The data were coded to identify key sections in the text to describe the content. Once all text had been coded, the research team collated all of the data into groups identified by code, allowing a condensed overview of the main points and common meanings that recurred throughout. The data were grouped into clusters of thematically related topics and distinct topic clusters for further analysis. A narrative summary was drafted of each cluster of topics.

Generating initial themes

The research team then reviewed the codes that had been created, identifying patterns among them, and initiated the generation of themes.

Reviewing themes

Once the themes had been generated, the research team compared the original data set against the themes to ensure that these were accurate representations of the data.

Defining and naming themes

Once the final list of themes had been created, the research team named and defined each, developing a detailed analysis and determining the narrative for each. This involved formulating exactly what was meant by each theme to enable a good understanding of the data, with clear and comprehensible names for each.

Drafting the findings

The findings were drafted and presented with data extracts and the analysis was contextualised in relation to existing literature.

Generating routinely used interventions

We quantitatively reported the frequency of different intervention types, and estimates of the numbers of children receiving these different types of therapy, across geographical areas to identify routinely used interventions for improving attachment in infants and young children. This information was presented to the ERG. We identified the 10 most commonly used interventions (based on the number of respondents who reported using each intervention) and these were included in the systematic review search strategy.

Systematic review (reviews 1 and 2)

The systematic review phase was split into two separate reviews to allow us to capture both the existing randomised controlled trial (RCT) evidence for all attachment parenting interventions (review 1) and the best available research evidence to support each of the most commonly used interventions in current practice, as identified by the survey (review 2).

Review 1 is an update of a previous systematic review conducted by the team in the same field. This systematic review was originally conducted as part of a National Institute for Health and Care Research (NIHR) Health Technology Assessment (HTA) project to assess the clinical effectiveness and cost-effectiveness of parenting interventions for children with or at risk of an attachment disorder or disorganised attachment patterns.¹³ Part of this review was previously updated and published in 2017 as a systematic review⁴⁷ of the effectiveness of parenting interventions aiming to reduce disorganised attachment in children at risk of attachment problems. The research team used the same searches and processes to update this review to include all RCT evidence for parenting interventions that aim to either reduce disorganised attachment or promote secure attachment in children at risk of an attachment disorder or disorganised attachment patterns. The results of this review (review 1) were then combined with those results from 2015 and the 2017 updates to provide a comprehensive overview of published RCT literature in this field. Where possible, this also included meta-analyses.

Review 2 is focused on the available evidence for the named interventions identified in the survey as the 'most commonly used' (based on the frequency with which respondents reported using the intervention). *Chapter 3* contains further information on how the most commonly used interventions were identified from the survey results. We included all available study designs, including, but not limited to, RCTs, non-randomised comparisons, pre and post studies and case series. To maximise the breadth and informativeness of the second review, we also included studies that assessed parental sensitivity and not only those studies assessing child attachment.

Both reviews were registered on PROSPERO (CRD42019137362) at study set-up, and this record was updated in June 2020 to reflect the finalisation of the PICOS criteria and search strategy after the survey results became available and after discussion with the ERG. Both reviews followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist to ensure that they adhered to the PRISMA guidelines.

Search strategy (reviews 1 and 2)

The search strategy was drafted by the research team with the ERG. For review 1, we used the same search strategy as for the previous reviews (2015, 2017), and this strategy was modified for review 2.^{13,47} It was finalised with an information specialist, who ran the searches in June 2020. Databases searched for both review 1 and review 2 were ASSIA, Cochrane Central Register of Controlled Trials (CENTRAL), CDSR, Conference Proceedings Citation Index – Science, Conference Proceedings Citation Index Social Science & Humanities, EMBASE, ERIC, MEDLINE, PsycINFO, Science Citation Index, Social Care Online, Social Policy & Practice, Social Science Citation Index and Social Services Abstracts. The two independent reviewers also conducted thorough reference checking and grey literature searching. The search strategy is in *Appendix 4*.

For review 1, we searched for records published after 2016, to line up with the previous update (2017).⁴⁷ For review 2, there was no limit on publication date. Both published and unpublished records were included for both reviews.

PICOS criteria

Review 1

The final PICOS for review 1 were as follows.

Population

Parents/caregivers of young children 0–13 years who had a disorganised classification of attachment or were identified as at high risk of developing severe attachment problems (attachment disorders or disorganised attachment patterns).

Intervention

Any parenting intervention that aimed to reduce disorganised attachment, improve secure attachment or treat attachment disorders was included. This included any interventions targeted at developmental trauma that sought to improve attachment. It included interventions involving the parent with or without the child, with parent or caregiver, in groups or one to one, with or without video feedback, and interventions involving a range of strategies or models, such as behavioural advice, provision of information, environmental change advice, activities, or support for the development of parental sensitivity. Interventions were included that were aimed at parents or caregivers, including foster carers. Interventions involving only teachers or teaching assistants (without parents or caregivers) were excluded.

Comparator

Comparators included no intervention, an alternative intervention, an attention control, and treatment or care as usual.

Outcome

The outcome was change in attachment (e.g. increase in secure attachment, decrease in disorganised attachment, or post-intervention comparisons between groups), measured using a validated attachment instrument that enables the classification of child attachment style.

Study design

Studies that did not use a true RCT design were excluded. Both published and unpublished papers from 2016 until present were included, as were foreign-language papers. We matched the PICOS criteria to those of the previous review to enable the results to be combined.

Review 2

The final PICOS for review 2 were as follows.

Population

Parents/caregivers of young children or children themselves aged 0–13 years who had disorganised classification of attachment or were identified as high risk of developing attachment problems (attachment disorders or disorganised attachment patterns).

Intervention

Interventions identified in the national survey as being most commonly used in the UK (based on frequency of respondents reporting using the intervention), aimed at reducing disorganised attachment, improving secure attachment, treating attachment disorders or improving parental sensitivity were included. This included interventions involving the parent with or without the child, the child with or without the parent and with either parent/caregiver.

Comparator

Where the study is a RCT we included any comparator (including control conditions or other active comparators). We included other designs and applied the same comparator criteria for any study using a comparison group (e.g. non-randomised controlled designs). Other empirical designs such as pre–post designs were included in the absence of a comparator.

Outcome

Change in attachment (increase in secure attachment or decrease in disorganised attachment), measured using a validated attachment instrument (either measuring attachment classification or a continuous attachment measure) or a change in parental sensitivity measured using a validated tool. This latter was chosen as a proxy indicator for attachment because of research showing strong associations between child attachment and parental sensitivity.⁴²

Study design

Studies including the 10 specific identified interventions were carefully scrutinised for available research evidence, including cohort studies, observational studies, case–control and case series evidence. Both published and unpublished papers were included, with no restrictions on years since publication, and foreign-language papers were included.

Review strategy: review 1

Screening

Sifting was conducted by two independent reviewers, both of whom screened all papers at all sift stages. Agreement was consistently above a baseline of a pre-agreed 80%. Where there was a disagreement, the paper was pulled through to full-paper screening and discussed together with input from an independent reviewer. Authors were contacted to clarify details and provide raw results where necessary. Translation services and library services were accessed as needed.

Record title and abstracts were screened in an initial phase against the PICOS criteria. If they met the inclusion criteria at this stage, the full paper was screened against the PICOS criteria. All records in the full-paper sift were reference checked, and books, systematic reviews and meta-analyses were checked for any additional relevant papers. Records that met the criteria at this stage were data extracted by the same two reviewers working independently. We ensured to follow the same process as for the previous review and update.

One paper discovered that met the inclusion criteria was dated pre 2016.⁵⁶ Although the study had been conducted pre 2016, it was made available only post 2016 and therefore had not been identified in the searches for the previous reviews. As the paper met the inclusion criteria, it was subsequently included.

Data extraction

Child attachment classifications were extracted as the primary outcome and information was collected on the demographics of the sample and the characteristics of the interventions. The data extraction was structured using the framework of intervention descriptions provided by the Template for Intervention Description and Replication (TIDieR) checklist.⁵² Many interventions are poorly described in publications, limiting their replicability. The checklist covers the rationale for or theoretical basis of the intervention, materials and procedures, who delivered its main components, where it was delivered and the frequency and duration of delivery. The data extracted were the same as in the previous reviews and update to allow data to be combined in the meta-analysis, and to allow for the same exploratory analyses to be conducted. The data extraction tables are in *Appendix 2*. These show the headings used to extract detailed information about the intervention and study design based on the TIDieR checklist, including participants, sample risk, intervention focus, intervention duration, intensity, delivery, control group, measure of attachment and attachment outcomes.

The data resulting from the extraction were split into outcome data for increasing secure attachment and outcome data for reducing disorganised attachment. All papers provided data for both of these, except for one. The authors of one paper that provided data on secure attachment did not respond to multiple requests within the required time frame to provide results for disorganised attachment and so the paper was included in the secure analyses only.⁵⁷

One paper met the inclusion criteria but did not provide enough information to allow data extraction for the meta-analyses.⁵⁸ The authors reported a change in attachment but did not provide the raw numbers of children in either group, and so the paper could not be included in the meta-analysis. The paper was excluded because the authors did not respond to multiple requests for these additional data within an appropriate timeframe.

Risk-of-bias assessment

A risk-of-bias assessment was conducted of all included papers by two independent reviewers using the Revised Risk of Bias Tool for Randomised Trials (ROB-2).⁵⁹

Meta-analyses methods

Statistical heterogeneity was assessed using Cochran's Q through the chi-squared test and was quantified using the I^2 -test. If there was statistical heterogeneity, a fixed-effects model was not appropriate and a random-effects model was used. Publication bias was assessed by examining the asymmetry of the funnel plot and the Harbord regression-based test was used.⁶⁰ Statistical analysis was performed using Review Manager 5.3. The results were considered statistically significant when the two-sided p -value was < 0.05 . Cohen's d effect sizes were calculated⁶¹ to make comparisons with previous meta-analyses on attachment interventions.

The included studies were stratified into groups based on their characteristics, and subgroup analyses were undertaken on the number of sessions, use of video feedback, age of child and whether or not a male caregiver was included.

Review strategy: review 2

Screening

Sifting was conducted by two independent reviewers, both of whom screened all papers at all sifts. Agreement was consistently above a pre-agreed baseline of 80%. When there was a disagreement, a paper was pulled through to full-paper screening and discussed, with input from an independent reviewer if necessary. Authors were contacted to clarify details and provide raw results where necessary. Translation services were used if needed and we used library access services for those records we were unable to access directly.

The titles and abstracts of records were screened in an initial phase against the PICOS criteria. If they met the criteria, the full paper was screened against the PICOS criteria. We conducted significant reference and grey literature checking. All records in the full-paper sift were reference checked, and books, attachment systematic reviews and meta-analyses were checked for any additional relevant papers. Records that met the criteria at this stage were data extracted by the same two reviewers each working independently.

Data extraction

Child attachment and/or parental sensitivity outcomes were extracted as the primary outcome and information was collected on the demographics of the sample and the characteristics of the interventions. This was structured using the framework of intervention descriptions provided by the TIDieR checklist and based on characteristics used in previous reviews.⁵² Research has shown strong associations between child attachment and parental sensitivity,⁴² and parental sensitivity is also recommended as an attachment outcome in NICE guidelines.¹⁴ The data extraction table for review 2 is in *Appendix 2* (see *Table 23*). This shows the headings used to extract detailed information about the intervention and study design based on the TIDieR checklist, including participants, sample risk, name of manualised intervention focus, study design, control group, measure of attachment, attachment outcomes, measure of parental sensitivity and parental sensitivity outcomes.

Risk-of-bias assessment

A risk-of-bias assessment was conducted by two independent reviewers using the ROB-2 and the ROBINS-I tool for non-randomised studies.^{59,62} The remaining study designs (e.g. case series) did not allow for a meaningful risk-of-bias assessment to be carried out.

Chapter 3 Survey results

Introduction

The current survey was intended to inform the design of a systematic review of interventions for severe attachment problems by identifying which interventions are routinely used in practice in the UK.

In this chapter we first summarise the completion rate of the survey from different parts of the UK and organisational characteristics relating to the services that responded to the survey. Following this, the findings from the quantitative components of the survey are explored and the most commonly reported interventions are described.

Completion rate

The survey was circulated to 1279 respondents. The actual number of individuals or organisations in receipt of survey invitations is likely to be greater than this number as survey participation was also encouraged through social media, flyers and conferences. A total of 2656 practitioners initially agreed to participate in the survey, that is, they clicked into the survey questionnaire via the link in the e-mail invitation or on social media and consented to taking part in the survey (however, note that an unknown proportion of these may have realised they did not meet the inclusion criteria or may have logged into the survey site more than once). A total of 625 respondents completed the survey. The overall completion rate in terms of the number of respondents who finished the survey ($n = 625$)/the number of respondents who agreed to participate in the survey ($n = 2656$) was 23.5% (although the denominator here is likely to have been inflated by individuals returning to the survey site more than once prior to completion, or by those who looked at the survey and then decided they did not meet the survey criteria). The completion rate in terms of the number of respondents who completed the survey ($n = 625$)/the number who began the survey (by completing the first question) ($n = 965$) was 64.8%. The 625 respondents completed the survey with respect to 734 different services.

Scope of the survey

Descriptive statistics regarding the pattern of responses to this survey are presented by service as well as by practitioner. Respondents were asked where the service they worked in was located in terms of region and town. Responses were received from all four UK nations (*Figure 1*). The majority of services were in England ($n = 600$), with a significant number based in southern England ($n = 353$) and northern England ($n = 160$) and a small proportion located in central England ($n = 87$). A smaller proportion of services were based in Scotland ($n = 60$), Wales ($n = 58$) and Northern Ireland ($n = 16$).

Organisational characteristics

Respondents were asked about the type of organisation in which they worked. The most common services were in the NHS (41.6%, $n = 305$); 17.8% of respondents were from LAs ($n = 131$), 10.9% ($n = 80$) were from the voluntary sector, 8.3% ($n = 61$) were from a private provider organisation, 7.6% ($n = 56$) were from individual private practice, 6.8% ($n = 50$) were from an educational organisation and 1.8% ($n = 13$) were from a social enterprise (*Table 1*).



FIGURE 1 Map showing the geographical distribution of survey responses across the UK. Microsoft product screenshot reprinted with permission from Microsoft Corporation.

TABLE 1 Type of organisation

Organisation type	Responses, n (%)
NHS	305 (41.6)
LA	131 (17.8)
Voluntary sector	80 (10.9)
Educational	50 (6.8)
Private provider	61 (8.3)
Individual private practice	56 (7.6)
Social enterprise	13 (1.8)
Other	38 (5.2)

Thirty-eight (5.2%) organisations were identified as an ‘other’ type; this included a university department ($n = 1$); an adoption/regional adoption agency ($n = 4$); another type of voluntary sector (including a children’s charity and a mental health charity) ($n = 14$); commercial manufacturing ($n = 1$); a community interest company ($n = 1$); counselling ($n = 1$); Department of Justice ($n = 1$); a grant-aided special school ($n = 1$); a parent ($n = 1$); self-employed ($n = 2$); an independent organisation ($n = 1$); NHS and LA collaboration ($n = 4$); mental health ($n = 1$); multiagency – NHS, LA, voluntary ($n = 2$); NSPCC ($n = 2$); and training – play therapy ($n = 1$).

Respondents were asked about the type of service(s) they worked in within their organisation. The most common was CAMHS (23.7%, $n = 174$). Similar proportions of service types were from looked-after children’s services (8.4%, $n = 62$), adoption/fostering services (8.7%, $n = 64$), counselling services

(7.6%, $n = 56$), parent-child support service/family centre/children's centres (7.5%, $n = 55$), health visiting services (6.0%, $n = 44$), perinatal mental health services (5.4%, $n = 40$) and specialist education (e.g. teacher of the deaf, specialist preschool/nursery service) (4.4%, $n = 32$). A smaller proportion were from child safeguarding team/services (2.5%, $n = 18$) and general practitioner/primary care (1.0%, $n = 7$). In addition, the same proportion in terms of service type (0.7%, $n = 5$) were from child health disability services, parent advice/information services and midwifery services (Table 2).

A total of 22.8% ($n = 167$) services were reported as an 'other' type. These services were organised into the following groups; children's care service (1.9%, $n = 14$), combined/collaboration service (i.e. various combinations of the following: looked-after children, adoption, fostering, CAMHS, education, LA and CAMHS provider collaborative) (1.0%, $n = 7$), education service (2.3%, $n = 17$), other family/parental service (2.9%, $n = 21$), general health service (0.7%, $n = 5$), mental health service (1.5%, $n = 11$), other therapy/psychological treatment service (10.5%, $n = 77$) and training service (1.1%, $n = 8$).

Roles and occupations of respondents

Respondents were asked about their role in the service. A sizeable proportion of respondents were clinical psychologists ($n = 123$, 16.8%). A considerable proportion were social workers ($n = 58$, 7.9%), psychotherapists ($n = 57$, 7.8%), health visitors ($n = 41$, 5.6%) and nurses ($n = 34$, 4.6%). A smaller proportion comprised 21 family therapists (2.9%), 19 educational psychologists (2.6%), 17 psychiatrists (2.3%) and 10 counselling psychologists (1.4%) (Table 3).

A total of 31.3% ($n = 230$) of roles were identified as 'other'. These were characterised into groups: other psychologist ($n = 18$, 2.5%), other psychotherapist ($n = 14$, 1.9%), other education practitioner ($n = 33$, 4.5%), other nurse ($n = 14$, 1.9%), other social worker ($n = 7$, 1.0%), other therapeutic clinician ($n = 15$, 2.0%), other family/parental related role ($n = 26$, 3.5%), other child-related role ($n = 9$, 0.8%), advisory role ($n = 5$, 0.7%), other allied health professionals ($n = 12$, 1.6%: speech and language

TABLE 2 Type of service

Service type	Responses, n (%)
General practitioner/primary care	7 (1.0)
CAMHS	174 (23.7)
Child health disability	5 (0.7)
Looked-after children's	62 (8.4)
Adoption/fostering	64 (8.7)
Parent advice/information	5 (0.7)
Child safeguarding team/service	18 (2.5)
Perinatal mental health	40 (5.4)
Health visiting	44 (6.0)
Midwifery	5 (0.7)
Specialist education (e.g. teacher of the deaf, specialist preschool/nursery service)	32 (4.4)
Counselling service	56 (7.6)
Parent-child support service/family centre/children's centre	55 (7.5)
Other (please specify)	167 (22.8)

TABLE 3 Roles in services

Role	Responses, n (%)
Clinical psychologist	123 (16.8)
Counselling psychologist	10 (1.4)
Educational psychologist	19 (2.6)
Psychiatrist	17 (2.3)
Nurse	34 (4.6)
Health visitor	41 (5.6)
Social worker	58 (7.9)
Family therapist	21 (2.9)
Psychotherapist	57 (7.8)
Other therapist (e.g. art, drama, play, music)	122 (16.6)
Other (please specify)	232 (31.6)

therapist, $n = 5$, 0.7%; and occupational therapist, $n = 7$, 1.0%), senior management role ($n = 39$, 5.3%), other mental health specific role ($n = 8$, 1.1%), midwife ($n = 5$, 0.7%), foster carer/parent ($n = 9$, 1.2%), well-being/support worker ($n = 11$, 1.5%), medical doctor ($n = 5$, 0.7%) and trainer ($n = 3$, 0.4%).

Age of children practitioners work with

Respondents were asked the age range of the children with whom they worked. There was no predominant age range: practitioners worked with children from 0–3 years (56.0%, $n = 350$), 4–6 years (65.3%, $n = 408$), 7–9 years (68.0%, $n = 425$), 10–11 years (65.9%, $n = 412$) and 12–13 years (58.4%, $n = 365$) (Table 4).

Tools and measures for assessing attachment difficulties

Respondents were asked to use an open-text field to list any measures or tools used to assess attachment difficulties or the parent–child relationship; 581 (93.0%) respondents completed this field. Of those 581, 37 commented 'N/A/none'. Table 5 shows a selection of the types of measures and tools reported (only those reported at least three times are presented).

TABLE 4 Age range of children respondents work with

Age range (years)	Responses, n (%)
0–3	350 (56.0)
4–6	408 (65.3)
7–9	425 (68.0)
10–11	412 (65.9)
12–13	365 (58.4)
Note	This was a multiple-choice question and, therefore, practitioners could select more than one response.

TABLE 5 Number of measures/tools used to assess attachment difficulties/the parent-child relationship

Measures			
Parent	Child	Relationship	Other
<i>Attachment</i>	<i>Emotional/behavioural</i>	<i>Parent report</i>	Goal-setting (n = 13)
AAI (n = 20)	ASQ (n = 21)	PSI (n = 24)	BERRI (n = 3)
Attachment Style Interview (n = 4)	SDQ (n = 77)	Brief Parental Efficacy Scales (n = 3)	CORC (n = 3)
Dynamic-Maturational Model (n = 4)	Behaviour Rating Inventory of Executive Function (n = 6)	Tool to Measure Parenting Self-Efficacy (n = 6)	Sensory Attachment Intervention (n = 3)
	Boxall Profile (n = 14)		Social Responsiveness Scale (n = 4)
<i>Mental health</i>	Child Behaviour Checklist (n = 4)	Parental Reflective Functioning Questionnaire (n = 9)	Child Attachment and Play Assessment (n = 7)
Edinburgh Postnatal Scale (n = 9)	<i>Mental health/well-being</i>	MORS (n = 35)	Coventry Grid (n = 21)
Hospital Anxiety and Depression Scale (n = 4)	Adverse Childhood Experiences (n = 7)	Postpartum Bonding Questionnaire (n = 7)	DDP (n = 11)
General Anxiety Disorder (n = 7)	Trauma Symptom checklist (n = 11)	<i>Observation</i>	Family Relations Test (n = 10)
Clinical Outcomes in Routine Evaluation (n = 8)	Children's Revised Impact of Event Scale (n = 3)	Keys to Interactive Parenting Scale (n = 6)	Dyadic assessment of naturalistic caregiver-child experiences Dance (n = 7)
Clinical Interview (n = 14)	Assessment Checklist (n = 38 - 14 Assessment Checklist for Children (ACC), 10 Assessment Checklist for Adolescents (ACA), 2 Assessment Checklist for Children plus (ACC+), 1 The Assessment Checklist (Tarren Sweeney), 11 Brief Assessment Checklist (3 BAC, 4 Brief Assessment Checklist for Children BAC-C and 4 Brief Assessment Checklist for Adolescents BAC-A)).	COS (n = 3)	VIG (n = 20)
Warwick-Edinburgh Mental Well-being Scale (n = 5)	Levels of Adaptive Functioning (n = 4)	Theraplay (n = 23)	Meaning of Child Interview (n = 4)
	Revised Child Anxiety and Depression Scale (n = 19; 17 children and 2 parent version)	MIM (n = 50)	Solihull (n = 8)
	Children's Global Assessment Scale (n = 4)	WWW (n = 3)	Playfulness, Acceptance, Curiosity and Empathy (n = 3)
		Care Index (n = 16)	SCORE Index of Family Functioning and Change SCORE-15 score 15 (n = 10)
		SSP (n = 8)	Kim Golding (n = 16) - 6 Carers Questionnaire, 1 Attachment Observation Schedule and Being a Parent Questionnaire, 7 Thinking about your child, 1 Attachment profiles (Kim Golding/Louise Bomber books)
		Parent-Infant Interaction Observation Scale (n = 11)	Story Stem (n = 28)
		Newborn Behavioural Observations (n = 11)	Thrive (n = 6)
			Observation (general) (n = 153)

AAI, Adult Attachment Interview; ASQ, Ages and Stages Questionnaire; COS, Circle of Security; DDP, Dyadic Developmental Psychotherapy; MIM, Marschak Interaction Method; MORS, Mothers' Object Relations Scales; PSI, Parenting Stress Index; SDQ, Strengths and Difficulties Questionnaire; WWW, Watch, Wait and Wonder.

The most commonly used measure was the Strengths and Difficulties Questionnaire (SDQ) ($n = 77$) (Table 6). A large proportion of respondents also mentioned the Marschak Interaction Method (MIM) ($n = 50$). Many respondents noted using the Mothers' Object Relations Scales (MORS) ($n = 35$). In addition, respondents reported using variations of the Assessment Checklist ($n = 38$). Frequently reported measures also included the Parenting Stress Index ($n = 24$), Story Stem ($n = 28$), Adult Attachment Interview ($n = 20$), Ages and Stages Questionnaire (ASQ) ($n = 21$) and Coventry Grid ($n = 21$). Many respondents also noted using general observation to measure attachment ($n = 153$).

Generally speaking, two measures are considered the 'gold standard' for assessing attachment in infants and toddlers: the SSP and the AQS. It is interesting that no respondents reported using the AQS and a very small number ($n = 8$) of respondents reported using the SSP, each of whom worked in only one service, meaning that eight services used the SSP. Of these eight respondents, three stated that they did not explicitly carry out the SSP: one noted that they used informal observation that mirrored the SSP, one said that they used the Crowell Procedure and then incorporated elements of the SSP, and one reported that they used the psychoanalytically based State of Mind Assessment of the child, including some aspects of the SSP.

Findings: routinely used interventions

Based on initial discussion with the ERG, and previous reviews of the attachment interventions literature, the survey included several named attachment interventions that respondents could report having used. These were Attachment and Biobehavioral Catch-up (ABC), Individual Child Psychotherapy (ICP), Parent-Infant Psychotherapy (PIP), Child-Parent Psychotherapy (CPP), Dyadic Developmental Psychotherapy (DDP), Circle of Security (COS), Video Feedback to Promote Positive Parenting (VIPPP), VIG, Theraplay and Watch, Wait and Wonder (WWW). We included manualised parenting interventions only, with the exception of ICP; the ERG strongly advised including ICP as it is very commonly used in this context.

Respondents were also asked to list any other attachment interventions that they used when working with children and/or caregivers. Respondents could list up to three other interventions (see Appendix 1, Table 21, for the list of other interventions). The most common response was 'other' ($n = 368$, 58.9%), indicating that respondents used interventions not in our initial list. This set of 'other' interventions included a wide range of interventions, and no individual interventions were reported more frequently than any of those in the named set presented in Table 6. Therefore, we refer to this set of 10 named interventions as 'routinely used interventions' for attachment as identified by this survey.

TABLE 6 Respondents and services that deliver intervention

Intervention	Respondents, n (%)	Services, n (%)
Other	368 (58.9)	436 (59.4)
Dyadic Developmental Psychotherapy	150 (24.0)	173 (23.6)
Individual Child Psychotherapy	147 (23.5)	168 (22.9)
Theraplay	137 (21.9)	151 (20.6)
VIG	96 (15.4)	108 (14.7)
Child-Parent Psychotherapy	75 (12.0)	86 (11.7)
Parent-Infant Psychotherapy	74 (11.8)	89 (12.1)
Circle of Security	64 (10.2)	72 (9.8)
Watch, Wait and Wonder	50 (8.0)	58 (7.9)
Video Feedback to Promote Positive Parenting	26 (4.2)	28 (3.8)
Attachment and Biobehavioral Catch-up	10 (1.6)	11 (1.5)

Out of the list of named interventions prespecified by the ERG, a substantial number of respondents (24.0%, $n = 150$) reported using DDP, 23.5% ($n = 147$) reported using ICP, and 21.9% ($n = 137$) reported using Theraplay. In addition to this, a similar proportion reported using VIG (15.4%, $n = 96$), CPP (12.0%, $n = 75$), PIP (11.8%, $n = 74$), COS (10.2%, $n = 64$) and WWW (8.0%, $n = 50$). A smaller proportion of the sample reported using VIPP (4.2%, $n = 26$) and ABC (1.6%, $n = 10$).

Outcome measures

For each reported intervention, respondents were asked how they assessed the outcome of work with a particular child or caregiver; the responses were given in an open-text box. Table 7 shows the outcome measures that respondents reported using to assess work for each of the routinely used interventions with a particular child or caregiver. Responses were varied, with respondents noting multiple outcome measures; these were subsequently categorised by the research team. Assessments often included a variety of self-report measures (e.g. SDQ, MIM, ASQ). Below, we summarise the assessments used for each of the most commonly reported interventions.

A large proportion ($n = 95$, 64.6%) of respondents who work with ICP reported using some form of assessment to assess the outcome with a particular child or caregiver. A similar proportion stated that they used informal clinical feedback ($n = 48$, 32.7%) and reviews ($n = 34$, 23.1%). A smaller proportion of respondents used observation ($n = 14$, 9.5%), goal-setting ($n = 16$, 10.9%) and report writing ($n = 9$, 6.1%), and a similar number of respondents ($n = 10$, 6.8%) noted that they use no outcome measures or chose 'other', which included internal work targets ($n = 1$, 0.7%), multidisciplinary team meetings ($n = 1$, 0.7%), improvement in target child behaviour, carer attunement and the parent-infant relationship ($n = 5$, 3.4%), expressing feelings verbally to therapist ($n = 1$, 0.7%), and through CAMHS ($n = 1$, 0.7%).

As for PIP, a substantial proportion of respondents stated that they used assessments ($n = 47$, 63.5%), whereas a smaller number used feedback ($n = 20$, 27%), reviews ($n = 6$, 8.1%), report writing ($n = 3$, 4.1%) and no outcome measures ($n = 7$, 9.5%). The same number of respondents ($n = 11$, 14.9%) stated that they used observation and goal-setting. Two respondents chose 'other', namely improvement in parent-infant relationship and lessening of symptoms in child ($n = 1$, 1.4%) and multiagency care plans usually related to placement stability ($n = 1$, 1.4%).

In relation to CPP, respondents frequently noted assessments ($n = 41$, 54.7%). A similar proportion was noted for feedback ($n = 20$, 27%), observation ($n = 11$, 14.7%) and reviews ($n = 13$, 17.3%).

TABLE 7 Outcome measures used in relation to intervention type offered

	Informal clinical feedback	Observation	Assessments	Goal-setting	Reviews	Report writing	Other	None
ABC	3	1	2	0	0	0	0	4
Individual Child Psychotherapy	48	14	95	16	34	9	10	10
PIP	20	11	47	11	6	3	2	7
CPP	20	11	41	5	13	5	7	8
DDP	46	13	75	13	32	5	11	22
COS	15	6	30	3	3	1	5	13
VIPP	3	2	7	0	2	1	2	11
VIG	26	14	55	14	10	3	8	8
Theraplay	45	25	65	14	15	6	13	26
WWW	20	10	24	10	2	1	5	2

Five respondents stated that they used goal-setting and report writing, and a small number worked with no outcome measures. Seven chose 'other', namely informal increased reflective capacity of the caregivers and attunement in the relationship and positive change in child's presentation ($n = 3$, 2.3%), multidisciplinary team meetings ($n = 1$, 1.3%), ongoing process of supervision, case supervision and individual reflective practice ($n = 1$, 1.3%), monitoring interaction and responsiveness against pre-agreed outcomes ($n = 1$, 1.3%) and using CPP forms ($n = 1$, 1.3%).

As for DDP, a large proportion of respondents used assessment ($n = 75$, 50%), with a significant proportion also using clinical feedback and reviews ($n = 46$, 30.7%). Eleven chose 'other', namely clinical judgement ($n = 1$, 0.7%); any success achieved ($n = 1$, 0.7%); ability to show positive distance travelled ($n = 1$, 0.7%); positive outcome for the family, which they felt really improved their communication with one another ($n = 1$, 0.7%); parent reflective capacity and parents felt a sense of relationship ($n = 1$, 0.7%); case supervision with clinical psychologist, reflection – improvement in carer child relationships and behaviour or actions on referral forms ($n = 1$, 0.7%); increased attunement with the child and understanding and use of the attitude and approaches of PACE (playfulness, acceptance, curiosity and empathy) to connect with and other commentary about the child's inner emotional world ($n = 1$, 0.7%); positive outcome ($n = 1$, 0.7%); child feels listened to and validated, improvement in emotional regulation and caregiver relationship ($n = 1$, 0.7%); placement stability, discharge ($n = 1$, 0.7%); and improvement in parent-child relationship as reported by dyad ($n = 1$, 0.7%).

Most of the respondents who used COS used assessments ($n = 30$, 46.9%). Five chose 'other', namely progress of family ($n = 1$, 1.6%), engagement with school and educational outcomes ($n = 1$, 1.6%), psychoeducation for caregivers ($n = 1$, 1.6%), mother's understanding of the concept of COS and examples of her supporting exploration ($n = 1$, 1.6%), and ongoing process of supervision, case supervision and individual reflective practice ($n = 1$, 1.6%). VIPP respondents were found to mostly use assessments ($n = 7$, 26.9%). Two chose 'other': changes in carer management, feelings and the relationship, child more regulated/feeling more contained and held and behaviours reflecting this ($n = 1$, 3.8%); and generally the intervention being well received by parents ($n = 1$, 3.8%).

In addition to this, respondents who worked with VIG report using assessments ($n = 55$, 57.3%). Eight chose 'other': improvements, trust and attachments growing ($n = 1$, 1.04%); changes in carer management, feelings and the relationship, child more regulated/feeling more contained and held and behaviours reflecting this ($n = 1$, 1.04%); outcomes negotiated with the caregiver and indicators of change from third parties such as school; also in some cases if the child is taken into care or not ($n = 1$, 1.04%); ongoing process of supervision, case supervision and individual reflective practice ($n = 1$, 1.04%); positive outcome ($n = 1$, 1.04%); in the community every 2 or 3 weeks ($n = 1$, 1.04%); VIG outcome measures ($n = 1$, 1.04%); and supportive family ($n = 1$, 1.04%).

A substantial number of respondents who used Theraplay used assessments ($n = 65$, 47.4%), with a significant proportion of these being clinical feedback ($n = 45$, 32.9%) and observation ($n = 25$, 18.3%). Thirteen chose 'other', namely child's behaviour ($n = 1$, 0.7%); quality of interactions between the child, peers and adults in school ($n = 1$, 0.7%); improvement in attachment to main caregiver, their confidence in working with their child and way the relationship develops in terms of increased responsiveness and enjoyment of the child ($n = 1$, 0.7%); improvement in child's behaviour and relationship between caregiver and child ($n = 1$, 0.7%); game with a child and therapist or with a caregiver with the child, where communication would be the focus of the game and co-operation is needed to achieve the end goal, assessing the ability of the child to remain focused and listen and promoting caregivers' ability to lead the game and remain in control ($n = 1$, 0.7%); clinical supervision, reflection, case management, improvement in behaviours and child carer interactions ($n = 1$, 0.7%); placement stability ($n = 1$, 0.7%); facilitating play sessions with parent to child and, over time, seeing if there is a difference ($n = 1$, 0.7%); no assessment diagnostically, therapeutic alliance built on holding space and time and trust, which allows child to work through and express emotionally in a safe and bounded play space ($n = 1$, 0.7%); reflective practice and supervision ($n = 1$, 0.7%); quality of interaction between the caregiver and the child ($n = 1$, 0.7%); and use alongside other modalities ($n = 1$, 0.7%).

A notable number of respondents who used WWW used assessments ($n = 24$, 48%). Five chose 'other', including progress made ($n = 1$, 2%), recordings and photographs ($n = 1$, 2%), documentation within electronic clinical records ($n = 1$, 2%), and therapeutic alliance allowing child to work through and express emotionally in play space ($n = 1$, 2%).

Geographical location of the most common interventions

Respondents were asked to use a redefined drop-down list to select the region in which they worked. They were then asked to use an open-text box to name the town in which their service or services were located (some respondents mentioned multiple towns in their response). The research team were then able to cross-reference the location with the routinely used interventions.

A fairly even distribution of use of ABC was recorded in services across the UK, including in southern England, with services using this intervention in Greater London ($n = 2$) in addition to northern England (North West England, $n = 2$; North East England, $n = 1$), Wales ($n = 2$), Scotland ($n = 2$), Northern Ireland ($n = 1$) and central England including the West Midlands ($n = 1$). Figure 2 shows this geographical distribution, with darker colours indicating higher frequency of use.



FIGURE 2 Maps showing the geographical location of the 10 named interventions identified in the survey: (a) ABC; (b) ICP; (c) PIP; (d) CIP; (e) DDP; (f) COS; (g) VIPP; (h) VIG; (i) Theraplay; and (j) WWW. Approximate distribution of children in receipt of interventions by age. (continued)



FIGURE 2 Maps showing the geographical location of the 10 named interventions identified in the survey: (a) ABC; (b) ICP; (c) PIP; (d) CIP; (e) DDP; (f) COS; (g) VIGP; (h) VIG; (i) Theraplay; and (j) WWW. Approximate distribution of children in receipt of interventions by age.

The majority of services ($n = 94$) using ICP were in southern England (Greater London, $n = 41$; South East England, $n = 23$; East of England, $n = 17$; South West England, $n = 13$). A substantial proportion of services using CP ($n = 39$) were in Northern England (Yorkshire and the Humber, $n = 17$; North West England, $n = 13$; North East England, $n = 9$). A smaller proportion of services ($n = 19$) were based in central England (West Midlands, $n = 12$; East Midlands, $n = 7$). In addition to this, 16 services were based in Scotland, 12 were based in Wales and six were based in Northern Ireland.

A significant number ($n = 55$) of services that reported using PIP were located in southern England (Greater London, $n = 30$; South West England, $n = 13$; South East England, $n = 10$; East of England, $n = 2$). A considerable number of services ($n = 21$) were located in northern England (Yorkshire and the Humber, $n = 14$; North West England, $n = 5$; North East England, $n = 2$). A smaller number of services were located in central England ($n = 12$, comprising six in each of West and East Midlands). Furthermore, six services were based in Wales, three were based in Northern Ireland and one was based in Scotland.

Most commonly ($n = 42$), CPP was reported as being used in services in southern England (Greater London, $n = 25$; South East England, $n = 11$; East of England, $n = 6$). Services were also based in northern England ($n = 24$: Yorkshire and the Humber, $n = 11$; North West England, $n = 9$; North East England, $n = 4$). Ten services were located in Central England (West Midlands, $n = 5$; East Midlands, $n = 5$), six were in Scotland, five were in Wales and three were in Northern Ireland.

By contrast, services reporting the use of DDP were fairly evenly spread across regions, with 65 services based in southern England (South West England, $n = 27$; South East England, $n = 16$; Greater London, $n = 12$; East of England, $n = 10$) and a similar proportion based in northern England ($n = 48$: Yorkshire and the Humber, $n = 22$; North West England, $n = 15$; North East England, $n = 11$) and central England ($n = 43$: West Midlands, $n = 28$; East Midlands, $n = 15$). A considerable 21 services were found to be in Wales, whereas a smaller number were found to be in Scotland ($n = 11$) and Northern Ireland ($n = 5$).

No services that responded to our survey reported using COS in Northern Ireland. A smaller number of services reported using COS in Wales ($n = 9$) and Scotland ($n = 5$). The vast majority ($n = 41$) of services that reported using COS were in southern England (Greater London, $n = 21$; East of England, $n = 9$; South West England, $n = 9$; South East England, $n = 2$). A similar proportion were in northern England ($n = 14$: Yorkshire and the Humber, $n = 7$; North East England, $n = 4$; North West England, $n = 3$) and 12 services were based in central England (West Midlands, $n = 9$; East Midlands, $n = 3$).

The majority of services ($n = 24$) that reported using VIPP were located in southern England (Greater London, $n = 11$; South West England, $n = 8$; South East England, $n = 4$; East of England, $n = 1$). A smaller proportion of services were in northern England, with five in North East England and two in Central England: one each in East and West Midlands. Two services were in Scotland and one was in Wales. No services were in Northern Ireland.

A significant number ($n = 72$) of services reporting the use of VIG were located in Southern England (Greater London $n = 22$; South West England, $n = 22$; South East England, $n = 17$; East of England, $n = 11$). A considerable number ($n = 21$) of services were located in Northern England (North West England, $n = 9$; Yorkshire and the Humber, $n = 6$; North East England, $n = 6$). Nine services were also recorded in Central London (West Midlands, $n = 5$; East Midlands, $n = 4$). In addition to this, seven services were based in Wales and nine were in Scotland; no services were in Northern Ireland.

Sixty-three services that reported using Theraplay were based in Southern England (South West England, $n = 25$; Greater London, $n = 19$; South East England, $n = 10$; East of England, $n = 9$). A similar number were located in Central England ($n = 42$: East Midlands, $n = 23$; West Midlands, $n = 19$) and Northern England ($n = 37$ services); of these, 18 were in Yorkshire and the Humber, 11 were in North West England and eight were in North East England. Furthermore, 19 services were in Wales, 10 were in Scotland and none were recorded in Northern Ireland.

Of those services reporting the use of WWW, these were most often found in parts of Southern England ($n = 38$), including 16 services in Greater London, 9 in both South East and South West England and 4 in East of England. A considerable number of services were based in Northern England ($n = 14$). Of these, nine were based in Yorkshire and the Humber and five were based in North West England. In addition, six services were in Central England (West Midlands, $n = 5$; East Midlands, $n = 1$). Additionally, five services were in Wales and two were in Northern Ireland. No services that reported using WWW were found to be in Scotland.

We asked respondents to estimate the overall approximate number of children with attachment difficulties (and/or their caregivers) with whom they had used some form of therapeutic intervention for across all work settings in the past year and we used this to estimate the number of children who respondents work with annually for each routinely used intervention.

The largest proportion of children were estimated to be receiving DDP (16.7%, $n = > 5078$ of children), followed by Theraplay (13.5%, $n = > 4091$ of children), ICP (12.8%, $n = > 3889$ of children), WWW (9.4%, $n = > 2839$ of children), CPP (7.8%, $n = > 2375$ of children), PIP (6.2%, $n = > 1868$ of children), and COS (5.0%, $n = > 1503$ of children). We estimate that the smallest proportion of children and/or caregivers were receiving VIPP (2.8%, $n = > 842$ of children) and ABC (0.4%, $n = 119$ of children) (Table 8).

TABLE 8 Number of children with whom intervention had been used

Intervention	Respondents, n (%)
DDP	> 5078 (16.7)
Theraplay	> 4091 (13.5)
ICP	> 3889 (12.8)
WWW	> 2839 (9.4)
CPP	> 2375 (7.8)
PIP	> 1868 (6.2)
COS	> 1503 (5.0)
VIG	> 1422 (4.7)
VIPP	> 842 (2.8)
ABC	119 (0.4)

Note

Approximate numbers for children and/or caregivers include '>' sign as respondents noted that the number of children they worked with was likely to be greater than the number that they had estimated.

Table 9 shows the age ranges of children with whom practitioners using each of the 10 named interventions commonly worked. Respondents who work with ABC reported that they work with a fairly even proportion of children across the age range of 0–13 years (see Table 9). The age range reported by respondents of children who practitioners work with for the remaining routinely used interventions was as to be expected. Respondents who work with ICP reported that the majority of children who they work with were aged ≥ 4 years. As for practitioners working with PIP, the vast majority of children who they work with were aged 0–3 years. Practitioners using CPP reported that they work with children aged 4–11 years. In addition, respondents that work with DDP were found to work mainly with children aged ≥ 4 years. Practitioners using COS and VIPP were found to mostly work with children aged 0–6 years. Practitioners working with VIG reported that they predominantly work with children aged 0–3 years. Practitioners using Theraplay reported working with children aged 4–13 years, whereas those using WWW were found to work mostly with children aged 0–3 years.

TABLE 9 Age range of children intervention has been used with

	Age range (years), n (%) of responses				
	0–3 years	4–6 years	7–9 years	10–11 years	12–13 years
ABC	6 (60.0)	6 (60.0)	5 (50.0)	5 (50.0)	5 (50.0)
ACP	64 (43.5)	107 (72.8)	127 (86.4)	124 (84.4)	107 (72.8)
PIP	66 (89.2)	41 (55.4)	35 (47.3)	33 (44.6)	29 (39.2)
CPP	45 (60.0)	63 (84.0)	62 (82.7)	60 (80.0)	51 (68.0)
DDP	80 (53.3)	125 (83.3)	137 (91.3)	138 (92.0)	127 (84.7)
COS	47 (73.4)	45 (70.3)	36 (56.3)	35 (54.7)	31 (48.4)
VIPP	22 (84.6)	21 (80.8)	18 (69.2)	17 (65.4)	16 (61.5)
VIG	80 (83.3)	59 (61.5)	45 (46.9)	42 (43.8)	35 (36.5)
Theraplay	70 (51.1)	111 (81.0)	119 (86.9)	118 (86.1)	99 (72.3)
WWW	44 (88.0)	21 (42.0)	18 (36.0)	15 (30.0)	16 (32.0)

Referrals

We asked respondents to provide service-level information on the percentage of children who were referred from various sources and the type of family arrangement the service served [e.g. cared for by biological parent(s), children who are adopted, children in foster care]. We used this information to gain a picture of the contexts in which services were delivering the different types of routinely used interventions.

A substantial proportion of respondents who used ABC reported receiving referrals from social workers (40.5%), with the education sector (24.2%) being another significant source. With regard to services providing ICP, a similar proportion of referrals were from social workers (32.8%) and the education sector (24.1%). Most commonly, services providing PIP received referrals from social workers (26.2%), health visitors (24.8%) and mental health services (20.7%), and 36.3% of referrals to services using CPP were from social workers. Respondents who used DDP stated that their referrals were predominantly from social workers (54.0%). Services providing COS reported that over one-third (33.5%) of their referrals were from social workers. With regard to VIPP-providing services, 35.4% of their referrals were from social workers and 23.8% were from education. Of those services using VIG, a considerable number of their referrals were from social workers (29.9%). Respondents who used Theraplay reported that almost half of their referrals were from social workers (45.5%), with a significant number also being from the education sector (20.9%). Most of the referrals for services using WWW practitioners were from health visitors (29.5%) and social workers (23.6%) (Table 10).

Children with whom practitioners worked

The majority of ABC practitioners worked with children who were cared for by biological parent(s) (53.5%), with almost one-quarter of children being in foster care (21.4%). Almost half of the children with whom ICP practitioners worked were cared for by biological parent(s) (41.4%), with a substantial number being adopted (21.0%). With regard to PIP practitioners, a large majority of children with whom they worked were cared for by biological parent(s) (64.9%). A considerable proportion of the children with whom CPP practitioners worked were cared for by biological parent(s) (39.6%), while 22.6% were in foster care and 20.2% were adopted. Most commonly, respondents who used DDP worked with children who were adopted (32.5%); in addition to this, a significant proportion were children in foster care (24.3%) and children cared for by biological parent(s) (22.5%). COS practitioners

TABLE 10 Average percentage of referrals identified by respondents who deliver routinely used interventions for attachment

	Type of respondent, %								
	General practitioner	Social worker	Self-referral	Voluntary sector	Health visitor	Education	Mental health service	Paediatrics	Other
ABC	6.2	40.5	12.3	6.2	18.2	24.2	15.3	9.2	21.2
ICP	12.0	32.8	12.5	5.0	4.6	24.1	10.5	6.7	5.2
PIP	15.6	26.2	10.4	5.2	24.8	8.9	20.7	10.7	7.4
CPP	12.2	36.3	12.4	3.8	4.9	17.0	14.3	9.5	8.5
DDP	7.2	54.0	10.9	1.9	3.3	10.8	6.5	6.5	6.2
COS	8.6	33.5	14.7	5.0	13.6	15.4	9.7	13.8	14.7
VIPP	7.5	35.4	16.0	5.6	12.9	23.8	14.9	7.9	6.7
VIG	9.6	29.9	9.4	4.5	19.6	14.1	15.6	5.2	13.7
Theraplay	7.1	45.5	13.1	3.4	4.7	20.9	10.8	7.2	6.7
WWW	13.7	23.6	8.5	7.0	29.5	15.0	18.5	9.4	10.6

predominantly worked with children cared for by biological parent(s) (49.9%), as well as with those in foster care (21.1%). Respondents who used VIPP were found to work with a considerable number of children cared for by biological parent(s) (41.1%), with a substantial number being children in foster care and children who were adopted (28.2% and 23.9%, respectively). VIG practitioners reported that the majority of children with whom they worked were cared for by biological parent(s) (57.4%). Theraplay practitioners noted that a similar proportion of children with whom they work were adopted (30.0%), cared for by biological parent(s) (29.0%) and in foster care (23.2%). Respondents who worked with WWW reported that they worked with a large proportion of children cared for by biological parent(s) (61.6%) (Table 11).

Training and supervision

Respondents were asked to comment in an open-text field on the type of training they had received for the routinely used interventions. These responses were immensely varied and were sorted into a set of general categories. For the purposes of analysis, training was considered as formal training that related directly to the routinely used intervention that may have been provided within their organisation or externally.

Almost three-quarters of respondents who worked with ABC reported that they had received formal training (70.0%, *n* = 7). The vast majority of respondents who reported working with ICP had been formally trained (93.2%, *n* = 137). A large proportion of respondents who worked with PIP had been formally trained (89.2%, *n* = 66). Of the 10.8% (*n* = 8) who had received no formal training in PIP, two mentioned informal training, including a training event-related observation course, reading and on-the-job training.

A substantial number of respondents who worked with CPP were formally trained (86.7%, *n* = 65). Of the 13.3% (*n* = 10) who were not formally trained, two were informally trained, which included learning through experience and drawing on psychodynamic psychotherapy training. The vast majority of respondents who worked with DDP were formally trained (94.0%, *n* = 141). Of the 6.0% (*n* = 9) who had no formal training, two mentioned informal training, including attending training where DDP was recommended and learning through experience and supervision.

TABLE 11 Care context of children receiving support from respondents by use of different attachment interventions

	Care context, %				
	Children cared for by biological parent(s)	Children who are adopted	Children who are cared for by kinship or friends and family care	Children in foster care	Children in residential care
ABC	53.5	8.4	14.4	21.4	8.2
ICP	41.4	21.0	13.1	16.9	8.1
PIP	64.9	12.8	10.9	13.0	3.4
CPP	39.6	20.2	14.9	22.6	6.7
DDP	22.5	32.5	13.1	24.3	10.7
COS	49.9	13.3	11.6	21.1	5.5
VIPP	41.1	23.9	9.2	28.2	8.7
VIG	57.4	9.7	12.1	16.8	3.3
Theraplay	29.0	30.0	12.4	23.2	7.9
WWW	61.6	10.5	10.3	17.3	3.3

The majority of respondents who worked with COS were formally trained (73.4%, $n = 47$). Just over one-quarter of respondents did not report having any formal training (26.6%, $n = 17$). Among these, one noted that they used elements of COS in psychoeducation, and five reported informal training including research, reading, videos handouts, accessing resources and becoming familiar with some useful elements via other training and supervision.

A large proportion of respondents who worked with VIPP (76.9%, $n = 20$) had formal training; 23.1% ($n = 6$) were not formally trained and three reported receiving informal on-the-job training. Almost all respondents who worked with VIG were formally trained (94.8%, $n = 91$). A significant proportion of respondents who used Theraplay were formally trained (83.9%, $n = 115$). Of the 15.3% ($n = 21$) who had no formal training, 12 mentioned informal training, including supervision, reading, on-the-job training, attending workshops and shadowing. In addition, the majority of respondents who worked with WWW (78.0%, $n = 39$) were formally trained, whereas almost one-quarter had no formal training (22.0%, $n = 11$) and six mentioned informal training, including reading and supervision (Table 12).

In addition to training, approximately half of the respondents who worked with ABC (50.0%, $n = 5$) and just over half of respondents who worked with COS (54.7%, $n = 35$) reported receiving 'regular supervision to deliver this intervention'. Just under half of respondents who worked with WWW (44.0%, $n = 22$) received supervision. The vast majority of respondents who worked with ICP and CPP reported having received supervision (ICP – 90.5%, $n = 133$; and CPP – 93.3%, $n = 70$). A similar proportion of respondents who worked with VIPP 65.4% ($n = 17$) and Theraplay 63.5% ($n = 87$) also reported having received supervision. In addition to this, the majority of respondents who worked with PIP (85.1%, $n = 63$), VIG (83.3%, $n = 80$) and DDP (74.7%, $n = 112$) reported having received supervision (Table 13).

Adaptations made to interventions

Respondents were asked to use an open-text field to record if they had made any important changes or modifications to the way the routinely used interventions were delivered (compared with the original manual or training). Adaptations identified were categorised in the following: integrating models and/or approaches (the intervention was modified to incorporate additional models and/or approaches); tailoring to the client(s) [the intervention was modified to be tailored around the client(s) needs]; setting (the intervention was modified in terms of the setting, i.e. face to face/online, individually/group, location); timings (the intervention was modified due to timings, i.e. number of times the intervention was delivered and over what period of time, including the number and duration of sessions); practice informed by the approach (the intervention was modified in terms of being delivered

TABLE 12 Respondents who had training

Intervention	Training, n (%) of responses
ABC	7 (70.0)
ICP	137 (93.2)
PIP	66 (89.2)
CPP	65 (86.7)
DDP	141 (94.0)
COS	47 (73.4)
VIPP	20 (76.9)
VIG	91 (94.8)
Theraplay	115 (83.9)
WWW	39 (78.0)

TABLE 13 Respondents who had supervision

Intervention	Supervision, n (%) of responses
ABC	5 (50.0)
ICP	133 (90.5)
PIP	63 (85.1)
CPP	70 (93.3)
DDP	112 (74.7)
COS	35 (54.7)
VIPP	17 (65.4)
VIG	80 (83.3)
Theraplay	87 (63.5)
WWW	22 (44.0)

as an informed approach as opposed to being guided by the manual); video procedure/materials (video procedure – intervention modified through changes to the video procedure, materials – intervention modified through changes to the materials delivered); and other.

Two manuals are available to those receiving training and supervision in the unpublished document ‘Attachment and biobehavioral catch-up’ by Dozier.⁶³ The first provides the content of the intervention and the second details the procedures and rules for coding ‘in the moment commenting’.⁶⁴ Of the respondents who reported working with ABC, only one (10.0%) commented that they had made modifications to the way the intervention was delivered, with a comment of ‘not many’, and did not elaborate on how the intervention had been modified (Table 14).

There is no one specific manual for ICP, as the term is a broad description of a therapeutic approach with various theoretical underpinnings and models of delivery. It was included in the survey on the strong advice of the ERG. In addition, although it is not specifically manualised for attachment, numerous papers and books describe its use. In the UK, the ACP and UKCP have different training requirements.

TABLE 14 Number (%) of respondents who made important adaptations to the way intervention was delivered

Intervention	Adaptations overall	Integrating other models and/or approaches	Tailoring to the client(s)	Setting	Timings	Practice informed by the approach	Video procedure/materials	Other
ABC	1 (10.0)	–	–	–	–	–	–	1 (10.0)
ICP	65 (44.2)	32 (21.8)	22 (15.0)	3 (2.0)	1 (0.7)	–	1 (0.7)	6 (4.1)
PIP	32 (43.2)	15 (20.3)	4 (5.4)	3 (4.1)	2 (2.7)	1 (1.4)	2 (2.7)	5 (6.8)
CPP	30 (40.0)	10 (13.3)	10 (13.3)	2 (2.7)	–	1 (1.3)	2 (2.7)	5 (6.7)
DDP	62 (41.3)	30 (20.0)	11 (7.3)	1 (0.7)	3 (2.0)	10 (6.7)	–	7 (4.7)
COS	31 (48.4)	8 (12.5)	4 (6.3)	8 (12.5)	1 (1.6)	6 (9.4)	2 (3.1)	2 (3.1)
VIPP	6 (23.1)	2 (7.7)	–	–	–	–	1 (3.8)	3 (11.5)
VIG	17 (17.7)	6 (6.3)	4 (4.2)	–	1 (1.0)	3 (3.1)	1 (1.0)	2 (2.1)
Theraplay	62 (45.3)	35 (25.5)	10 (7.3)	4 (2.9)	3 (2.2)	3 (2.2)	–	7 (5.1)
WWW	19 (38.0)	7 (14.0)	4 (8.0)	4 (8.0)	1 (2.0)	–	–	3 (6.0)

A significant proportion of respondents stated that they had modified the intervention by integrating other models and/or approaches (21.8%, $n = 32$). A small proportion changed the intervention by tailoring it to the client(s) (15.0%, $n = 22$). 2.0% ($n = 3$) or changing the setting. Another respondent reported modifying the intervention by adapting timings and the video procedure/materials and six (4.1%) respondents made modifications categorised as 'other'.

PIP has two manuals: one from the Parent Infant Project at the Anna Freud Centre and the other detailing the approach of the School of Infant Mental Health.⁶⁵ Fewer than half of respondents who worked with PIP made changes to the original manual (43.2%, $n = 32$). Among these respondents, modifications included integrating other models and/or approaches (20.3%, $n = 15$), tailoring to the client(s) (5.4%, $n = 4$) and setting (4.1%, $n = 3$). The same proportion (2.7%, $n = 2$) made modifications to timings and to video procedure/materials. Five (6.8%) were categorised as 'other'.

CPP has two published manuals available. The first can be used when working with very young children who have been traumatised⁶⁶ and the second is used to work with children who have experienced the death of a parent or primary caregiver.⁶⁷ These are supplemented by an online version from the New Mexico Children, Youth and Families Department.⁶⁵ A total of 40.0% ($n = 30$) of practitioners that reported using CPP reported they had made changes to the way the intervention is delivered. Modifications included 13.3% ($n = 10$) integrating of other models and/or approaches and tailoring to the client(s), 2.7% ($n = 2$) setting, 1.3% ($n = 1$) practice informed by the approach and 2.7% ($n = 2$) video procedure/materials. Five (6.7%) was categorised as other.

There are some key texts for DDP that accompany the core training in the approach: *Attachment-Focused Family Therapy Workbook*⁶⁸ (2011) and *Healing Relational Trauma with Attachment-focused Interventions: Dyadic Developmental Psychotherapy*.⁶⁹ In addition, there are manuals that accompany Kim Golding's DDP-informed therapeutic parenting programmes for parents/carers of care-experienced children *Nurturing Attachments* and *Foundations for Attachment*.⁷⁰ A total of 41.3% ($n = 62$) of respondents who worked with DDP had made modifications to the intervention, including integrating other models and/or approaches (20.0%, $n = 30$), tailoring to the client(s) (7.3%, $n = 11$), setting (0.7%, $n = 1$), timings (2.0%, $n = 3$), and using the intervention as a practice informed by the approach (6.7%, $n = 10$). Seven (4.7%) respondents were categorised as 'other'.

COS does not have a published manual, and a practitioner needs to train before they can become a facilitator; however, there are two COS books, one for professionals and one for parents.⁷¹ Around half of respondents who work with COS (48.4%, $n = 31$) reported that they had made changes to the original programme, including integrating other models and/or approaches (12.5%, $n = 8$), tailoring to the client(s) (6.3%, $n = 4$), setting (12.5%, $n = 8$), timings (1.6%, $n = 1$), and used the intervention as a practice informed by the approach (9.4%, $n = 6$), and the same proportion (3.1%, $n = 2$) made changes to the video procedure/materials and were categorised as other.

VIPP has different versions for different circumstances, for example the Video-feedback intervention (version 3.0) to promote Positive Parenting and Sensitive Discipline (VIPPSD) manual by Juffer *et al.*⁷² Almost one-quarter (23.1%, $n = 6$) of respondents made changes to the original manual or training, including integrating other models and/or approaches (7.7%, $n = 2$). One respondent modified the intervention by changing the video procedure. Three (11.5%) respondents were categorised as 'other'.

The Skills Development Scale is used as the VIG manual.⁷³ A total of 17.7% ($n = 17$) of practitioners who used VIG made modifications to this intervention, including integrating other models and/or approaches (6.3%, $n = 6$) and tailoring to the client(s) (4.2%, $n = 4$). One respondent made modifications to the timings and video procedure. Three (3.1%) respondents made modifications in terms of using the intervention as a practice informed by the approach and were categorised as 'other'.

There are three texts for Theraplay⁷⁴⁻⁷⁶ and the last two form the manual.⁷⁷ Just under half (45.3%, $n = 62$) of Theraplay practitioners made modifications to the intervention, including integrating other models (25.5%, $n = 35$), tailoring to the client(s) (7.3%, $n = 10$) and setting (2.9%, $n = 4$). Three (2.2%) respondents reported that they had made changes to timings and used the intervention as a practice informed by the approach. Seven (5.1%) respondents were categorised as 'other'.

A published manual is available for WWW.⁷⁸ Among respondents who worked with WWW, 38.0% ($n = 19$) made changes to the intervention, including integrating other models and/or approaches (14.0%, $n = 7$), and 8.0% ($n = 4$) made changes in terms of tailoring the intervention to the client(s) and setting. One respondent made changes to timings. Three (6.0%) were categorised as 'other'.

Therapeutic techniques

Although no single intervention type was reported to be used by > 25.0% of practitioners or services, large proportions of respondents reported using one or more of the common techniques used in attachment interventions. Table 15 lists descriptions of these therapeutic techniques. A large proportion of the respondents reported using the technique 'modelling sensitivity' (84.2%, $n = 526$), reflecting on being a caregiver (86.4%, $n = 540$) and reflecting on the caregiver's past (82.2%, $n = 514$). Around three-quarters of the sample reported using speaking for the child (77.4%, $n = 484$) and attachment psychoeducation (74.6%, $n = 466$). A substantial number of respondents reported using live feedback (59.8%, $n = 374$) and facilitating interaction (62.4%, $n = 390$), and a significant number of respondents used skin-to-skin (37.3%, $n = 233$) and video feedback (31.7%, $n = 198$).

TABLE 15 Therapeutic techniques

Therapeutic techniques	Respondents, n (%)	Number (%) of children and/or caregivers
Promoting sensitive caregiving		
Modelling sensitivity	526 (84.2)	> 23,714 (> 78.2)
The therapist directly models or demonstrates sensitive parenting, showing by example how one responds to a child's attachment cues, provides sensitive comfort, etc.		
Video feedback	198 (31.7)	> 9737 (> 32.1)
Using video recordings of the caregiver's own interactions with the child to highlight sensitive (or insensitive) behaviours by replaying the video, and providing opportunity for reflection and feedback		
Live feedback	374 (59.8)	> 17,879 (> 58.9)
Providing in-the-moment feedback to caregivers during spontaneous live interactions with the child to highlight sensitive or insensitive behaviours		
(Note: this does not refer to feedback provided only during a specific structured activity arranged by the therapist, which would be scored in the next item)		
Facilitating interaction	390 (62.4)	> 15,001 (> 49.5)

TABLE 15 Therapeutic techniques (continued)

Therapeutic techniques	Respondents, n (%)	Number (%) of children and/or caregivers
During intervention sessions, the therapist encourages the caregiver to play or interact with the child for a discrete period of time (e.g. using some provided toys, or a feeding) and provides verbal comments and encouragement to promote sensitive interactions with the child		
Speaking for the child	484 (77.4)	> 18,939 (> 62.4)
The therapist voices what the baby or young child might be thinking or feeling, as if in the child's own words. Or, the therapist encourages the caregiver to verbalise what they think the child might be thinking or feeling		
Attachment-related therapeutic support for caregivers		
Reflecting on the caregiver's past	514 (82.2)	> 20,032 (> 66.0)
The therapist facilitates the caregiver's exploration of their own experiences of attachment or past traumas and facilitates the making of connections between their past and the caregiver's relationship with the baby or young child		
Reflecting on being a caregiver	540 (86.4)	> 23,597 (> 77.8)
Here-and-now-focused discussion of how caregivers find looking after a baby or young child, or therapeutic discussion about how the caregiver thinks about the child		
Attachment psychoeducation	466 (74.6)	> 25,668 (> 84.6)
Providing information (e.g. in a presentation, or via leaflets, handouts) about attachment and/or sensitive caregiving		
Skin-to-skin	233 (37.3)	> 10,545 (> 34.8)
Promoting skin-to-skin contact between caregiver and infant, including kangaroo mother care or baby massage		

Conclusions and discussion

Patient and public involvement: stakeholder workshops and focus groups

We included PPI throughout the research. The PPI group included PPI representatives, those working directly with families with lived experience, researchers, academics, teachers, clinicians and charities and third-sector organisations.

We held three PPI meetings throughout the study, and updated members by e-mail between these meetings. The first meeting was held at the start of the study, to introduce the overall aims as well as to gather specific feedback on the survey. The members advised us on the questions to include and which organisations to circulate the survey to. The second meeting was held once we had gathered the survey results, the purpose of which was to provide an update on these findings and to gather advice on the search strategy for the systematic review. Members supported us with the selection of the search criteria and helped us to refine the PICOS. The third and final meeting was held after the completion of the systematic review, to provide a summary of the findings of the study. The members provided advice in terms of interpreting the findings and recommendations for dissemination and future work.

We also held a specific PPI workshop at the end of the study to share our findings. During this workshop, we gave members a summary of the findings. Members provided information about their current experiences in practice and how they related to the findings in our study, as well as the barriers they faced in both practice and research. The members advised us on future research directions and ideas around dissemination.

Completion rates

The completion rate for the survey was low, at 23.5% ($n = 625$) of the 2656 professionals who had initially agreed to participate. The reasons for this are unclear, but it might have been that professionals were daunted by the number of questions. We also heard from a number of professionals that, where more than one professional had been approached from any service, they agreed among themselves who would represent that service. The number of responses and the reasonable geographical distribution of responses across England and Wales and Northern Ireland (albeit with a smaller proportion in Scotland) nevertheless permit conclusions to be reached.

Types of organisation, services and professional roles

A wide range of services were named as working with children with attachment difficulties and their families. This included staff in social care, education services, LA services, a variety of voluntary organisations and private practitioners both individually and within organisations. A substantial proportion of services (41.6%) were from the NHS. The most common type of service was CAMHS (23.7%), but perinatal services, health visiting, midwifery and primary care were also included. This suggests that the NHS and CAMHS may dominate provision. The ages of children with whom practitioners worked were fairly evenly distributed across the whole age range of 0–13 years. In younger age groups, the target of the intervention is often attachment security/disorganisation, whereas in older age groups the target of the intervention is often severe attachment problems. This explains why DDP, which targets severe attachment problems, is often used in older age groups, up to the teenage years.

Clinical psychologists were the commonest professional role (16.8%), followed by social workers (7.9%) and psychotherapists (7.8%). Other diverse professions included other therapists, education practitioners, other psychologists, health visitors and other nurses and allied health professionals.

Referral sources

The commonest referrers were social workers, followed by education, health visitors and mental health services. Some were self-referrals. Reports of referral source varied to some extent by the mode of intervention used by the practitioners.

Procedures and tools used for assessing attachment difficulties or parent-child relationships

A wide variety of instruments was reported by 581 responders. Some of these related directly to attachment, whereas many were measures of a range of child mental health or other outcomes. The most commonly used (13%) was the SDQ. The MIM was reported by 9%, variations of the Assessment Checklist 6% and the MORS 6%. Many respondents also noted using general observation to assess attachment (26%) and 6% reported using none. Of the two procedures considered the 'gold standard' of attachment in infants, the SSP was reported as being used, often with modifications, in a small number of services ($n = 8$) and the AQS was not used at all. This may reflect the challenges in administering the SSP and the need to undergo strict training and validation. The administration of and training for the AQS is not as demanding but this measure was still not used by any of the respondents (this is discussed further in *Chapter 6*).

It is of concern that most services are not using outcomes that can give them detailed information about attachment. Given that this is the main purpose of these interventions, there is an expectation that more services would be using at least one main measure of attachment to monitor outcomes.

This is particularly pertinent in the younger age groups where attachment is the construct targeted in therapy, whereas in older age groups some clinicians were targeting alternative outcomes such as behaviour. Intervention targets in older age children are often related to severe attachment problems (including attachment disorders) and therefore it may be that for these children alternative measures are needed, and the SSP or AQS are less appropriate.

Therapeutic techniques

Most respondents reported using one or more of the common techniques in attachment interventions. Video feedback and promoting skin-to-skin contact between the caregiver and infant were the least commonly used techniques. Overall, these various therapeutic techniques were used in a range of geographical locations and services.

Routinely used interventions and modifications made to them

Between them, respondents had used all the 10 named therapies, packages of, or manualised interventions in the questionnaire. However, the rate of use varied, the order from most to least common being DDP (24%), ICP (23.5%), Theraplay (22%), VIG (15%), CPP (12%), PIP (12%), COS (10%), WWW (8%), VIPP (4.2%), and ABC (1.6%). Importantly, 59% professionals used 'other' interventions. Of these, the commonest were various psychotherapies/talking therapies (11%), play therapies (7.5%) and family therapies (6.5%). This wide variety may be a reflection of the wide range of what professionals regarded as attachment difficulties.

Although most of these interventions were manualised, considerable modifications were made to the way these interventions were delivered compared with the original manual or training. These modifications included integrating other models and/or approaches; tailoring the intervention to the particular needs of the client(s); and changing the setting, timings and materials, which included delivering the intervention on an individual basis rather than in a group setting, using the home rather than a clinical setting and undertaking the intervention online. Some respondents mentioned that, owing to COVID-19 restrictions, they had had to adapt the intervention for delivery online. Some interventions were informed by the particular intervention's approach but did not follow the manual. Fewer adaptations were made to VIPP and no adaptations were made to ABC (this is further discussed in *Chapter 6*).

Other outcome measures

The outcome was measured in a variety of ways, including informal clinical feedback, observation, assessments, goal-setting, reviews and report-writing. The choice of measures varied with the mode of intervention. ICP most commonly was followed by an outcome assessment. The commonest interventions for which no outcome measure was used were Theraplay and DDP. However, both of these interventions were often followed by an assessment.

There was not one consistently used instrument used as an outcome measure. The SDQ was used by practitioners who worked with all of the routinely used interventions, with the exception of those working with ABC (this is discussed further in *Chapter 6*).

Geographical distribution of interventions

There is a disparity in what is on offer in different parts of the UK. The majority of services using the routinely used interventions were found in England. ABC recorded a fairly even distribution of usage within services across the UK. DDP was found to have a fairly even distribution of coverage across parts of England. Furthermore, a fairly similar proportion of services were found to use Theraplay across England. Usage of the routinely used interventions was found in parts of Scotland, Wales and Northern Ireland. However, no services in Scotland were found to use WWW. In addition, no services in Northern Ireland were found to use VIPP, VIG, COS or Theraplay.

The differences in the use of interventions across geographical locations are likely to be related to differences in local training availability, disciplinary training programmes, commissioning preferences, provider preferences and available local therapeutic resources. Further research would need to be undertaken to disentangle this complex picture, which is beyond the scope of this current survey.

Which children received which interventions?

Children with whom practitioners worked were most often being cared for by their biological parent(s), with the exception of DDP and Theraplay, as the children using this were most commonly adopted. The commonest interventions for children living with their biological parent(s) were PIP, WWW and VIG. For children who were living in foster care, VIPP was the most common intervention. Children being cared for by kinship or family friends received an even distribution of all the interventions. There was thus some selection of intervention for children in particular living circumstances, although the basis on which this choice was made is not clear. Adoptive parents may have particular preferences for interventions for their children. In England, the Adoption Support Fund is available for helping parents to access interventions.

In terms of the proportion of children receiving the various interventions, this mostly reflected the frequency of interventions used by respondents, with DDP, Theraplay and ICP being the commonest, while the fewest children received VIPP and ABC.

Training

The majority of respondents had received training in the intervention(s) that they were using. Of those using VIG, DDP, ICP, PIP and CPP the rate of training was 95–87%. Of those using Theraplay, WWW, VIPP, COS and ABC the rate was 84–70%. Others attended informal training. However, some training was part of general professional training rather than formal training in the particular intervention. The majority of practitioners had completed professional formal training for DDP, Theraplay, VIG and WWW. Although the high rate of training for some interventions is good, there must be concern that some untrained or only relatively trained professionals are providing treatment. Availability, duration and cost for training in the various interventions varies. It is clearly important for training to be more available and affordable, at least for evidence-based interventions.

Supervision

The rate of supervision was more variable. The highest rates of supervision were for CPP (93%), ICP (91%), PIP (85%) and VIG (83%). The lowest was for WWW, at 44%. These variable results are of concern, particularly as 25% of those working with DDP and 36% of those working with Theraplay, two out of the three commonest interventions, received no 'supervision to deliver this intervention'. Although this shows low rates of intervention-specific supervision, it may be that practitioners also received general supervision as part of their role.

Chapter 4 Understanding of attachment difficulties

Overview

As part of the survey on common interventions, respondents were invited to use a free-text section of the questionnaire to describe the kinds of difficulties they considered to fall under the heading of attachment difficulties. As there was a very wide range of responses to this question, this aspect of the results is presented here as a separate chapter.

Qualitative data collected in this free-text section of the questionnaire were analysed according to thematic analysis. The thematic analysis process involved six phases – familiarisation with the data, coding, generation of the initial themes, a review of themes, defining and naming themes and drafting the findings – with movement back and forth between the phases. More detail regarding this process can be found in *Chapter 2* (see *Data collection and modes of analysis*).

The themes emerging from the free-text data could be understood as falling under two main headings, each containing several subthemes. In the first, many of the comments left by respondents reflected a perception of attachment difficulties as relating to certain kinds of ‘cause’ or ‘origin’ of attachment difficulties. Respondents particularly drew attention to the importance of considering early developmental trauma, severe family adversity and insensitive or disrupted caregiving. The second major theme focused on the ‘features’ of a child’s behaviour that indicated difficulties with attachment directly, including signs and symptoms relating to difficulties with general functioning, neurodevelopmental difficulties, mental health problems and disturbances in relationships with others. These themes and their inter-relations are organised schematically in *Figure 3*.

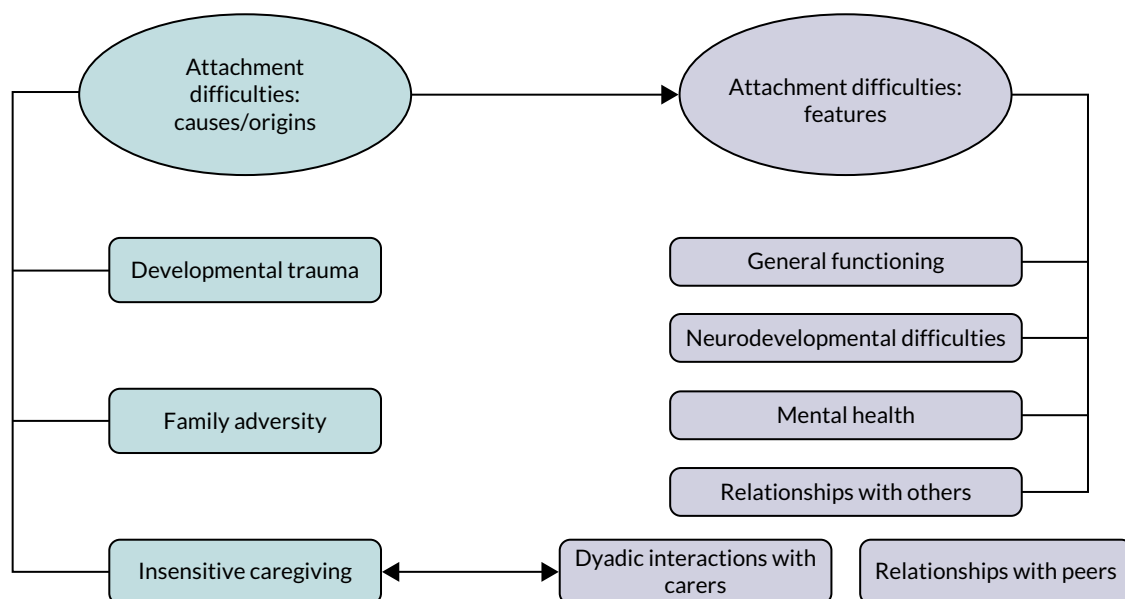


FIGURE 3 Schematic representation of respondents’ perceptions of attachment difficulties, organised by theme.

Theme 1: causes or origins of attachment difficulties

Developmental trauma

Some respondents highlighted the importance of trauma occurring during pregnancy and postnatally as a key factor that could have an impact on attachment. Often, this focus on traumatic causes was linked particularly to neurodevelopmental difficulties within the second theme of Presentations and Features:

Children who have marked difficulties the sensory attachment regulation, those who tend become emotionally dysregulated . . . difficulties with executive functioning (esp. impulse control, reasoning) and possible underdeveloped cognitive skills, educational delay. These difficulties are just the start but occur because of early attachment trauma/significant neglect from neglect whilst either in utero or in the crucial formative years of childhood.

383

Children with developmental disorders including ASC, as well as social, psychological, emotional and behavioural difficulties that have arisen in response to family circumstances and breakdown. Also, children who are adopted and cared for and are therefore coping with complex trauma.

517

Children who have experienced trauma, abuse or neglect. They may have cross-over symptoms to children with ADHD [attention deficit hyperactivity disorder]/ASD [autism spectrum disorder]: poor concentration, disruptive behaviour, unable to cope with change, attention seeking/avoidant . . . explosive/impulsive behaviour.

169

Behavioural issues eating difficulties, trauma, complex presentations which on first glance appear ADHD/ASD.

556

In relation to trauma, a number of respondents also commented that many parents seek a diagnosis of developmental disabilities such as ASD and ADHD:

Often parents seeking ASD or ADHD diagnosis but are diagnosed with attachment difficulties. Most or all of these relate to trauma.

098

Many respondents reported that attachment difficulties are impacted by early life experiences and disruptions in early childhood that can have an impact on the child's behaviour. A number of respondents said that developmental trauma can lead to attachment difficulties that present in many ways, for example in violent behaviour or lying and stealing. Respondents reported how traumatic events or experiences such as neglect and abuse can have a profound impact on development and are associated with attachment difficulties:

Developmental trauma and early trauma can lead to attachment difficulties which look like: oppositional behaviour, lying, stealing, running away, climbing on things (roofs), smearing of faeces, clinginess, bed wetting, nightmare.

582

Children who have experienced trauma, abuse and neglect in their early lives may not have been able to form close relationships with their parents/carers. As such they may not have been provided with sufficient nurturing for their social, emotional and intellectual development . . . This early adversity affects brain development and skills such as cause and effect thinking, logical and abstract thinking, anticipation skills, memory, impulse control and emotion regulation may be affected. Consequently, a child may be unable to do as you ask, rather than deliberately ignoring requests.

330

Children whose earliest parenting experiences were neglectful and/or traumatic resulting in compromised early development particularly in children's capacity to develop self-regulatory skills, emotional awareness and competence, empathy, impulse control and management of shame. These difficulties often result from impaired attachment experiences.

039

A number of respondents thought that children with attachment difficulties may experience reduced trust in adults and their peers due to trauma in their early childhood, especially children who have been adopted or are in care:

A lack of security and consistent parenting in the early stages of their life will often have reduced their language development and ability to trust other adults and they may feel distress and anxiety in social situations. Additional trauma or continued stress will further impact . . . with consequent impacts on language development, executive functioning and academic achievement.

312

Children who have experienced trauma in their early childhood which is inhibiting their ability to form trusting safe relationships with their adoptive parents and others.

097

We support a lot of children and their families who have experienced early trauma, losses, separations and disrupted attachments. Primarily our children are living in foster care or have been adopted but I also work with children who have been very sick and spent time in hospital in other parts of the country and who live in a residential school setting. Many of the difficulties these children face centre around feeling safe and secure and being able to trust the grownups around them.

622

Respondents reported that emotional regulation has an impact on children's internal working model and that this can be affected by trauma:

Children with impaired attachment security due to separation and loss and trauma in early life, who as a result are unable to form trusting and nurturing relationships with others. These children frequently have behaviour difficulties relating to their insecurity and impaired sense of self-worth (negative internal working model).

185

Clients are typically children who have experienced very significant attachment disruption in the context of abuse/neglect/maltreatment/adversity/interpersonal/early development/complex trauma. This can present as significant difficulties with emotion recognition or regulation . . . very negative internal working model of self/others . . . Significant issues with trust.

187

In addition to this, developmental trauma may often become a barrier to care and caregivers as a result of emotional dysregulation; many respondents commented that these barriers affect children who have been adopted or are in care. This difficulty can manifest in a strategy for survival, which caregivers find challenging:

I look for and expect signs of attachment difficulties in children with developmental or early childhood trauma, including children in care or adopted children. Parental attachment style, often parents with attachment difficulties pass this on to their child as they struggle to form a healthy attachment . . . a strong disengagement with services/home support and a lack of motivation to change.

294

Children experiencing historical or ongoing trauma, abuse, or neglect affecting their relationship with their primary caregiver and potentially further relationships in their life. Other barriers to forming a relationship with caregivers such as other childhood adversity . . . that may impair the child and parent's ability and bond.

546

We think about attachment under the umbrella of developmental trauma – as one aspect of a constellation of difficulties. We think about attachment alongside: emotional dysregulation, mistrust . . . For us, Attachment difficulties captures the parts of the presentation that leave the child reliant on rigid ways of conveying and getting their needs met, ways which may have served them well in the past such as avoidance or preoccupation.

013

Particularly with post-adoption clients . . . developmental trauma symptoms; impacts their ability to engage with therapy also – particularly has an impact on breaks and endings.

511

Developmental trauma difficulty with relationships and regulation resulting in developing strategies for survival which can be hard for parents/carers/teachers to manage.

121

Many respondents indicated that developmental trauma can affect a family as a whole, with a child showing a 'miscuing' of their needs:

Child being unable to express needs, child's need not being recognised and responded to, child miscuing, child's expression of distress (not expressed, not able to be soothed), evidence of emotional dysregulation or trauma symptoms.

596

Miscuing needs, role reversal, intergenerational trauma, avoidant/anxious/maladjusted attachment behaviours.

597

In relation to developmental trauma, many respondents also noted that inconsistent care affects attachment:

Children who have experienced complex trauma, children who have been removed from the care of their birth parents and places in the care of foster carers. Children who have been adopted and moved from birth parents to foster carers to adoptive parents. Children who live with parents who are not emotionally available, or who are unable to protect and keep them safe. Children who live in homes where there is violence or coercion. Children who move between numerous family members. Children who experience inconsistent care.

308

Trauma, young person having experienced multiple placements, several changes in social workers, changes of schools, care givers, lack of contact, contact that is not going well with parents etc, abuse from past, any traumatic past events, in a young person's life.

324

Respondents also reported that attachment difficulties could arise because parents and caregivers have experienced trauma:

When a parent has neglected or abused their child in the past, and/or has their own difficulties with relationships and experiences of trauma impacting on their emotional wellbeing and how they interact with their child ... can be defiant or withdrawn in placement or back at home with parents we would assume some attachment difficulties while also trying not to exclude additional influences such as neuro-developmental or physical health issues; try and make sense of the complex interaction of difficulties.

407

Parent not being responsive to child's emotional needs sometimes due to trauma themselves.

147

Some respondents reported that trauma was not always recognised or acknowledged in children with attachment difficulties:

Children with attachment difficulties that we support have issues with historic, developmental and current trauma ... Services and parents tend to externalise these issues ... rather than acknowledging the trauma.

563

If there was trauma/neglect in the history attachment difficulties might be expressed in behaviour ... cognitive functioning, ADHD like signs, ASD like signs ... The trauma/neglect may not be obvious.

604

Family adversity

In addition to experiences of developmental trauma, many respondents pointed to attachment difficulties being linked to severe family adversity such as financial difficulties, domestic violence, parental substance misuse and ill health:

Multiple stressors impacting parental availability and mental health (housing, finance, domestic violence) ... parental disengagement.

037

Attachment disorders ... attachment problems brought about by dv [domestic violence], mental health, substance misuse. Often working with challenging behaviour that stems from attachment.

494

Adoption, separation ... loss, grief ... parental mental ill health ... disability and illness, single parent family life, enmeshment, economic stressors, isolation and marginalisation where they may impact on attachment bonds within the family.

502

I also work with siblings who are often feeling invisible or spend periods of separation from family in hospital. We work also with parents who are preoccupied by the stress of cancer the impact on either the relationships or family dynamics.

444

Maternal/parental mental health

A number of respondents linked attachment difficulties with the caregiver's mental health and the impact that this can have on maternal and paternal sensitivity and the ability to respond to a baby's cues:

Cases where the maternal mental health problem is interfering with the mother's ability to appropriately and sensitively respond to her baby's cues. 004

In parents: difficulties in bonding, parental responsivity/sensitivity (impacted by mental health, for example). 454

Mothers with mental health illness often struggle to form an attachment. 021

Antenatal referrals usually centre around a woman being unable to 'bond with her bump' for a multitude of reasons, usually pertaining to her own mental health or life issues. These may include previous loss of a baby whereby there is a fear of a further loss with the current baby. Between 0-18 months the difficulties might be around a persistence of the difficulties during pregnancy or may be exacerbated by postnatal depression or anxiety, either pre-existing or triggered by becoming a mother (or father) due to early trauma or relationship difficulties with the parents' own parents, for example. These examples are not exhaustive but account for many of our referrals. 419

Some respondents thought about attachment issues when serious mental or physical health problems or substance misuse had an impact on a caregiver's ability to look after a child:

Mother or infant being ill and hospitalised. Mother's mental health. Mother experiencing extreme tiredness, overwhelmed. Feeding problems. Crying babies (colic, cow's milk protein allergy etc). 085

Families being separated for mental health treatments, mothers unable to hold their babies in mind as very focused on their own needs. 254

I work with children aged 0-12 months only. Difficulties I see are usually related to maternal low mood e.g. baby withdrawn/passive/not easily consoled by mother/unsettled infant due to mother's changeable mental state/difficulty with self-soothing etc. Mother may have difficulty separating from baby even when still in the same room. 133

Mother-infant relationship difficulties impacted by mother emotional regulation difficulties, lack of confidence with parenting, depression, anxiety, OCD [obsessive-compulsive disorder], PTSD [post-traumatic stress disorder]. 072

Mother insecure or ambivalent attachment. Same for father. Parental depression and other MH [mental health] conditions. Drug and alcohol abuse. 515

Children under a child protection plan for all different kinds of abuse. Children whose parents are substance misuse difficulties. Parents that experience mental health or learning difficulties, and so many more.

562

Attachment disorders . . . attachment problems brought about by dv [domestic violence, mental health, substance misuse. Often working with challenging behaviour that stems from attachment.

494

In addition, respondents often mentioned the connection between parents' mental health problems and bonding difficulties:

Only work with children up to 1 year of age so mums reporting difficulties with bonding – saying their baby doesn't like them or prefers other people. Mum's mental health may be an influencing factor on this which the baby picks up on.

060

Mothers mental health impacting ability to parent and therefore form bond.

063

Difficulty with bonding between mother and baby due to mental and parental illness.

205

Lack or relationship between mother or father and their baby. Unhappy or troubled relationship between parent and baby. Parental ill health, poverty, isolation, displacement, vulnerability in the parent such as complex route to conception . . . Previous mental or physical health problems.

036

New mothers bonding with babies. Postnatal depression. Anxiety. Poverty. Lack of support. poor housing.

071

Inability to create a bond with baby in antenatal or postnatal period. Maternal mental health concerns . . . Lack of support. Lack of rooming in.

078

A number of neonatal practitioners said that parental depression also plays a part in attachment difficulties, which can occur when the baby is placed away from the parent in a neonatal intensive care unit (NICU):

Parental depression impacting on relationship with infant. Maternal ambivalence impacting on the child. Separation following birth in NICU.

269

I sometimes see attachment difficulties on the side of the parent if they have had a stay in NICU and their baby has been very unwell – PND, PTSD, Anxiety as well as struggles to bond with their baby . . . and this can also impact on the early bonding time. In addition, if younger children have to spend long periods of time in hospital, I often see separation anxiety, reluctance to mix with other children.

540

Furthermore, some commented that birth trauma can cause mental health difficulties, which can also have an impact on secure attachment styles:

Working on a neonatal unit I work with babies that are either born early, sick or following a birth trauma. This means parents are anxious, stressed and worried that can interfere with the development of bonding and attachment. If survival of the baby is in doubt that can also interfere with bonding. Some parents feel that as the neonatal staff are looking after their baby they have no role which can also interfere with bonding.

070

Several respondents commented that parents may have experienced attachment difficulties in their own childhood and from experience of the care system:

We work with parents and children under two who have social care involved (usually child protection). Problems we work with are those that are negatively affecting the parent-children relationship and parenting sensitivity e.g. parental mental health problems, parents who have been in care and experienced attachment difficulties themselves.

595

Mental ill health . . . Experience of being in the care system. I work within a specialist intensive health visiting service . . . 1st time parents from pregnancy till child is 2 (1001 critical day period) . . . impacts on their attachments and can cause difficulties. These attachment difficulties can result in mental health difficulties and/or personality disorder. We work 1 : 1 with families to break the cycle and encourage positive attachments through mentoring.

534

Insensitive caregiving

Many respondents highlighted the importance of difficulties with parenting, caregiver sensitivity and emotional attunement as a key issue in their work with attachment. These can be separated into several subthemes.

Parental difficulties in relating to the child

Many respondents talked about the importance to attachment of difficulties with a parent's ability to relate appropriately to the child:

Disruption in parent child relationship where parent is unable to support child's emotional needs and parent consistently . . . Parent feeling negative about their child . . . Parent/child conflict. Low self-esteem and resilience attachment to objects withdrawn/anger/anxiety low self-esteem and resilience if concurrent with poor parental relationship.

126

Parent emotionally unavailable to child, intrusive parenting.

120

Parents struggling to respond to baby's cues, parents struggling to understand children's communication, parents speaking negatively about the baby/child.

261

Mother and baby (under 1 year), where mum feels/states she has no attachment to her baby. Observations of mum's interaction with baby which would indicate lack of attachment i.e. only providing basic cares, no talking to baby, not cuddling baby, not giving appropriate eye contact, no displays of warmth/affection or inappropriate/lack of response to baby's needs.

009

We typically work with women who are observed to have a difficulty in the attachment with their baby, or feel that they have a difficulty in the attachment with their baby.

616

Mother not bonding with baby following birth.

100

Mothers and fathers and other children not bonding with their unborn (in pregnancy) and newborn baby (postnatally).

069

Mothers and fathers not bonding with the baby in utero and consequently neither after the baby has arrived.

327

Respondents also said that relational difficulties between mother and baby could be characterised by the mother's unrealistic expectations for the baby:

Parent infant relationship.. not understanding baby states, adjustment difficulties, role adjustment, unrealistic expectations.

029

I generally work with mothers and infants aged 0–12 months. I am usually alerted to potential attachment difficulties when there appears to be a regular mismatch between mother and infant affect and attention, when mothers seem irritated or unaffected by their infants' distress, and when mothers describe unrealistic expectations of their infants.

396

Misattunement

A number of respondents noted maternal/parental misattunement, with mothers/parents being unresponsive to their infants and children's needs:

Poor parent child relationship. Parent, usually mother not meeting child's emotional needs. Parent negative about her child. Parent not in tune, missing her baby's cues and signals. Little play between adult and child.

579

Eye contact, vocal contact, not recognising cues, how parent feels about baby, how cues are mistaken by parent.

096

Parents not understanding that babies are communicating all the time and therefore not noticing or responding to cues.

101

Children who have experienced primary carers as poorly attuned to their initiations including communications of their distress. This may have been lower than 40% of these communications . . . They have confused experiences of relationships and have not developed an internalised sense of safety with adults . . . High levels of adversity without sufficient attuned adult care, may impact on any or all of these aspects of development, depending on the child's experiences at different times.

335

0–2 years. Focus on pre-attachment indicators and repairing misattunement, ruptured relationships, parental sensitivity as well as understanding and addressing what might have replaced paternal sensitivity in the care-giver (and why/how).

522

Respondents also noted that caregivers may have difficulties with ‘mind-mindedness’:

We observe attachment behaviours of infants – signalling behaviours like crying or protest, or approach behaviours – and how a parent would respond to these in a consistent way or whether there is inconsistency in terms of warmth, invasiveness, tone of voice, language, teasing etc. We would observe the timings of interactions and whether they are attuned and contingent. We would also note how a parent might refer to their child and use mind-minded comments; or in general conversation how they might refer to their child. We would be alert to thoughts of maternal incompetence or a mother expressing that her baby hated her. We could observe how a parent might position a baby for interaction or play . . . Any of these factors might indicate possible attachment difficulties.

087

Relationship communication and interaction difficulties . . . Parenting misalignment and lack of connection with and mind-mindedness for their child.

226

Where there is a rupture or problem in the relationship between the child and a main caregiver (including nursery staff) meaning that the child does not feel safe and there is a lack of an attuned and mind-minded caregiver, leading to the infant/child being distressed.

316

Some respondents considered attachment difficulties to be related to a lack of warmth and reciprocity in the relationship between caregiver and child:

Problems in the parent-infant relationship – a lack of connection, a lack of warmth, misunderstanding or ignoring communication, a lack of understanding or application of knowledge of child development. Basically, a lack of safety and joy in the parent–baby relationship.

190

I work with under 5’s particularly babies and mothers during the perinatal period. No obvious warmth between the dyad. Little or no eye contact. No reciprocity between the dyad etc.

237

Parental issues of attachment to their children, behavioural issues suggestive of attachment difficulties; sleep, infant feeding, conduct difficulties, reciprocity between children and their parents.

585

Lack of reciprocity; difficulties with emotional and behavioural regulation; high need to control; aversion to physical touch and affection; inability to trust that adults can meet their needs; poor impulse control.

498

Theme 2: features of attachment difficulties

As noted above, the second major theme in practitioners’ responses to the open-text field regarding their understanding of attachment difficulties in clinical practice related to features of attachment problems in children.

General functioning

Many respondents reported that they thought about attachment difficulties in terms of the impact that adverse attachment experiences may have on cognitive, behavioural and emotional functioning. They referred to difficulties and delays in play, learning, attention, regulating emotions, sleeping, feeding, motor skills, speech, language, communication and challenging behaviour:

Difficulties in this area could cause problems with playing, learning, developing . . . Developmental difficulties including neurodevelopment and problems with learning – emotional difficulties including anxiety, mood disorders, serious emotional dysregulation . . . externalising difficulties such as aggression and oppositionality – interruptions or delays in development of young children in areas such as sleeping, feeding, motor development and speech, language and communication.

520

The children are under 2 years. Unsettled infants crying a lot. Delayed development slow to smile. Poor weight gain. Delayed speech development . . . Repetitive behaviours e.g. rocking.

222

I work for the LD [learning disabilities] team within CAMHS and often receive referrals for 'challenging behaviour'. Attachment is at the centre of my developing an understanding of the presenting difficulty.

413

Many respondents referred to difficulties at school:

Difficulty focusing/attention. A lower developmental age to their chronological age. Academically behind peers. Unable to understand and express how they feel. Underdeveloped executive functioning.

483

Behaviour difficulties, communication both verbal and non-verbal empathy and emotional intelligence weakness as growing older and participating with others and wider networking a limited ability to learn in a coherent way.

564

Neurodevelopmental difficulties

A number of practitioners associated attachment difficulties with having developmental difficulties such as ADHD and ASD. Respondents mentioned that, in some cases, these children receive a misdiagnosis for these conditions when in fact they may have attachment difficulties. Conversely, some also suggested that some of the questionnaires used to assess attachment included a number of questions not directly related to attachment but related to other developmental differences or psychopathology such as oppositional defiant behaviour or callous unemotional traits, and that this may blur the construct of attachment in practitioners' minds:

I feel that children who often get diagnosed with ADHD are often children who actually have attachment problems. So, difficulties forming relationships, paying attention, low self esteem, often disruptive.

436

I think we have a lot of children who have an ASC diagnosis who may have attachment challenges. Children who are needing attention, children who suddenly erupt, a child who may smile but feeling something complete different . . . Child may find it hard to settle, talk a lot, can find it hard to concentrate . . . children who are aggressive, find it hard to recognise their behaviour, struggles with organising themselves.

544

A developmental history will often show me warning signs that attachment may have been disrupted in early childhood . . . I will often work with parents who present with a child who has challenging behaviour. The parent will suspect ASC or ADHD . . . When I discuss the developmental history I will so often hear a parent say 'they have been like it since they were 18 months/2 years' . . . A child will often be described as always on the go, not concentrating, not sitting still, easily dysregulated and the parents suspects ADHD - I listen to these worries and concurrently consider attachment difficulties.

527

Mental health difficulties

Child mental health

A large proportion of respondents considered attachment difficulties in the context of mental health difficulties such as depression, anxiety, eating disorders such as anorexia, self-harm and psychosis:

Especially young people suffering from emerging personality disorder, anorexia, depression, and some aspects of psychosis.

453

Poor mental health, sometimes appearing as self-harm/low mood.

584

Infants displaying attachment difficulties = avoiding parents' gaze, frozen babies, depressed babies.

197

Behavioural difficulties in child where there is an early history of parental mental ill health, or significant absence that has impacted on child. Attachment difficulties are often significant contributors in anxiety, depression and conduct disorders.

165

Some respondents mentioned that attachment difficulties were at the root of mental health presentations. In addition, some stated that mental health difficulties contributed to a child's (particularly an infant's) failure to 'thrive', including sleeping and eating:

Children with difficult relationships with parents where attachment difficulties are at the root of their mental health presentation.

521

Mental difficulties such as depression, eating disorders and anxiety often have their roots in attachment difficulties.

462

In infants poor feeding and sleeping, persistent crying, difficulties in toilet training, failure to thrive. Difficulties in weaning. In older children and young adolescents . . . suicidality, risky acting out, self-harm. Low mood and depression.

603

Our team works with infants in foster/kinship care and their primary caregivers (including birth parents and foster/kinship caregivers). All the infants we work with have experienced maltreatment or have siblings who have experienced maltreatment. We consider that mental health issues emerging in this context are related to and mediated by the infant's attachment experiences.

594

Difficulties which have an effect on the relationship between parent and child ... can cause attachment difficulties for the child ... and often resulting in SEMH [social, emotional and mental health] difficulties.
547

Many respondents reported that they considered attachment difficulties when they observed separation anxiety:

Difficulties with relationships with parents/carers/other adults. Trouble separating from known adults ... High levels of anxiety and distress around separation or transitions and boundaries.
181

Children refusing to go to school. Anxiety in children. Anxiety in parents so they need their children close.
358

Prolonged distress when away from a caregiver – e.g. difficulty attending school, avoidance of peer/social events in which a parent won't attend, avoidance of extra-curricular activities – negative thinking patterns/expressions when discussing being away from a caregiver.
350

Some respondents mentioned adverse childhood experiences (ACEs) as a cause of mental health problems:

There have been Adverse Childhood Experiences (ACEs). There may or may not be associated mental health difficulties in addition to the behaviours.
162

Relational difficulties

Inability to form and maintain relationships

Many respondents reported that they considered attachment issues when children struggled to form and maintain relationships with family members, adults and peers:

Maladjusted behaviours relational challenges – with authority and peers.
452

Children who use behaviour to meet an internal need, whether that sparks a negative or positive response from care giver. Children who are hypervigilant, struggle to maintain friendships, who lash out.
568

Regular arguments, disagreements and dysfunction between parent and child, a child who needs to be around the parent and is unable to function in school.
571

Intense relationships with peers. Inability to maintain friendships.
625

Challenges building and maintaining relationships with teachers and significant adults.
023

Struggles to accept guidance from teaching staff, difficulties with peer relationships.
025

I consider attachment in terms of a child's ability to build and sustain healthy (secure) relationships. Attachment difficulties therefore are any problems children encounter in relationships with parents, carers, siblings, teachers, friends, etc. This might manifest in the child acting in or out, bullying or being bullied, suffering from loneliness . . . social isolation, causing disruption at home or at school, becoming dependent on social media, etc.

046

Difficulty forming/maintaining relationships or trusting, seeming to arise from non-secure attachment patterns . . . challenging/non-functioning parent-child relationships seeming to be based in early attachment patterns.

050

Parents and child, birth, foster and adopted children where lack of connection impinges on secure bond.

490

In our service the connection between the parent and the child is often disrupted. Some of the children find it difficult to express their emotions in regards to what they are or have experienced in the past . . . In very young babies they are finding it difficult to settle after feeding, and do not want to be held close, non-responsive to birth mother/father. Children 2-6 age range do not seem to notice when their parent leaves the room, some have exhibited self-soothing techniques. This is also apparent when the child has fallen over they do not exhibit any emotions. Within the teen years some have demonstrated defiance and anger towards their parent in an attempt to hold in their anger. Avoidance of attending school thus affecting their education ability.

215

Fractured or at risk of relationship fractures in the relationship between the parent and the infant.

612

Rejection/sabotage/control

Some respondents said that attachment problems may be indicated when an element of rejection is observed, for example when children present rejecting behaviours and sabotage healthy relationships with those with whom they interact out of fear of rejection, which may lead to controlling behaviour:

Difficulties making and maintaining healthy relationships. Unhealthy proximity seeking or rejecting behaviours that impact on accessing and managing day to day life and learning.

122

Difficulties making and maintaining relationships, difficulties understanding and labelling emotions, frequent attempts at sabotaging potentially healthy relationships to avoid rejection, difficulties understanding social situations, difficulties with engagement and participation . . . controlling play in others, repetition in play, repetitive questioning.

506

Forming and maintaining relationships including friendships. Fear of rejection.

478

Children with social emotional and behavioural difficulties who display aggressive or anxious behaviours with adults and peers. Children who demonstrate resistance to relationship with others, demonstrate distancing and rejecting behaviours to others . . . inability to acknowledge or express feelings, fearfulness of anger, anticipation of rejection, unable to respond appropriately to social situations.

439

Complex difficulties with managing and sustaining relationships. Patterns of rejection and loss which push away close relationships. An extreme need to take control of situations and relationships.

103

Numerous respondents noted that children with attachment problems may not accept nurturance from caregivers:

Difficulty accepting nurture and care, overly independent, difficulties in peer relationships, struggling to separate, struggling to regulate.

282

Aggressive behaviours towards parents, siblings, peers. Difficulty accepting parents nurture. Controlling behaviour of parents. Parents struggling to feel confident in their parenting . . . School difficulties with behaviour and learning and relationships.

053

Inability to accept nurture from caregiver. Controlling, coercive and manipulative behaviour . . . Avoidant or coercive/reactive attachment patterns.

509

Difficulty with boundaries

Many respondents reported relational difficulties that are often seen in school, where a child may also experience difficulties with boundaries:

Many behavioural presentations in children where they don't respond in the 'normal' manner. So reject or sabotage supporting relationships. Begin to respond to a strategy but then reject it. Not motivated at all by typical school 'reward' structures.

619

Attachment difficulties effect the child's sense of self, ability to focus and achieve educational goals, the ability to understand social interactions and maintain friendships with peers. It may also contribute to the child's ability to emotionally regulate by themselves, and the reliance on parents or caregivers. Parent-child relationship may be strained, there may be behaviour from the child perceived as chaotic and explosive at times, or as overly compliant at others.

220

Difficulties with family relations, Challenging behaviours at school and home . . . School and family not understanding where the child is coming from and how to manage distress.

247

Problems with family relationships – usually identified by parent/professionals. Unhelpful patterns of interaction between parent/s and child. Hypervigilance – often whole family Child finding it hard to learn/respond to correction or teaching.

256

Contradictory behaviour

Many respondents thought that extremely contradictory behaviours or emotions or hyper-reactivity were indicative of attachment difficulties, with some overlap (either explicit or implicit) with features of attachment disorders (e.g. reactive attachment disorder):

Poor peer relationships, trying to please, extreme feelings of love and hate.

590

<i>When the child has special needs e.g. disruptive behaviour in class, extreme quietness.</i>	465
<i>Children frequently present as hyper vigilant with sensory hyper-sensitivities, they present with hyper or hypoarousal levels and suggest high levels of dissociation . . . Children present with pseudo maturity in some responses and immaturity in others.</i>	302
<i>Attachment disorder either overly anxious or non-responsive to carers presence.</i>	081
<i>When interacting with a parent displaying clusters of behaviours, particularly if observed on a few occasions, and considered not due to physical health problems, or not merely temperamental features, for example: Inhibited affect, looking away/avoiding eye contact, Withdrawn, Reduced vocalisation. Not easily soothed when upset and older child – disinhibited, overly clingy to the parent, or clingy to strangers, or not interacting etc.</i>	532
<i>The child's predictions about parent/caregiver behaviour (in relation to the desire for comfort, and the need to feel safe) are of nil or minimal response, or unpredictable response, or frightening response. Behaviourally this may present as not-seeking proximity or having a tendency to organise only from the child's own resources, or an intense set of displays which are viewed as being geared towards engaging the caregiver, or confusion and bewilderment in relation to caregiver actions and intentions. Emotionally, the child's responses can vary from minimal to intense and/or discordant.</i>	228
<i>Unexplained emotions and behaviours. Confusing and unpredictable relationship building. Not knowing how to respond to comfort . . . Not knowing how to interact with self and others. Inability to play.</i>	526
<i>Early relationship difficulties between care-giver and infant/child . . . Behavioural concerns resulting from inconsistent patterns of relating.</i>	460
Many respondents described attachment difficulties as relational difficulties due to a 'push/pull' relational behaviour seen in children:	
<i>Complex relational needs or push/pull attitudes.</i>	567
<i>Difficulties in relationships to carers . . . reactive attachment disorder, push-pull with carer, clingy unable to safely explore.</i>	466
<i>Need to be in control, rejecting of nurture, push-pull dynamics with carers, difficulty allowing adults to look after and care for them.</i>	523
<i>Difficulty building trusting relationships, push-pull relationships. Lack of preference for a caregiver/appears to be no attachment relationship. Need for control over environment and others behaviour. Difficulty turn taking and sharing. Dissociation and fight/flight behaviours.</i>	558

Difficulties with relationships with carers, difficulties forming friendships with peers, significant emotion regulation difficulties, apparently 'angry' outbursts, hypervigilance to changes in their environment and in caring strategies, stuck in a bind both yearning for relationships yet finding them too intense and pushing them away somehow.

276

Some respondents also considered overly self-reliant and independent behaviour to be indicative of attachment difficulties:

Children who are . . . over self-reliant and overly distrustful of others, children whose behaviour is unpredictable and inconsistent with key figures in their lives.

400

Overfamiliarity with/indiscriminate attachments to strangers

Furthermore, some respondents said that they considered attachment difficulties, along the lines of disinhibited social engagement disorder or disinhibited attachment, when a child was overfamiliar with and formed indiscriminate attachments to strangers:

Children who present as overfamiliar and not recognising boundaries with strangers.

073

Going to unfamiliar people, excessive friendliness. Not looking for a familiar adult when in new environments.

267

Child seeking out care and soothing from a wide range of adults, not always their parents/caregivers.

086

Child: indiscriminately seeking contact with random adults, lacking awareness of strangers, muting expressions of need to the point of appearing independent of career or maximising expression of need to the extent that preoccupation with maintaining proximity impacts on play, learning, peers' relationships.

129

Insecure attachments and associate behaviours, children can have no boundaries or fear of strangers and go to anyone, not able to seek support when they have a problem etc.

220

Low self-esteem

A number of respondents mentioned children's low self-esteem:

Difficulty experiencing relational joy. Low self-esteem. Feeling of little worth or value in the world.

528

Difficulties forming positive relationships with peers. Problems with self-esteem and feeling different or not special. Difficulties relating to others and developing empathy.

510

Issues concerning relationships (with self, others and the social world); preferred coping styles . . . and in respect of risk (to self, others and from others).

623

The child blaming themselves for their behavior – as the child becomes a young person the shift to autonomy where they manage their own behavior and relationships can be difficult – Specifically in a school setting some children struggle to have a positive enough relational frame to allow them to seek competence in something challenging – The child feeling caught between the behavior they 'know' they should do and the behavior their body knows how to do – Children (particularly LAC [looked-after children]) who are still involved in systems that don't offer the relationships they need to change. So if you are in a system that you can accurately describe as not loving you, why should you attach.

379

Chapter 5 Systematic review results

Results (review 1)

Review 1 is an update of a previous systematic review to include all randomised controlled trial (RCT) evidence for parenting interventions that aim to either reduce disorganised or promote secure attachment in children at risk of attachment problems.

PRISMA diagram (review 1)

A total of 2516 records were identified through searches; 2216 were excluded at the initial sift based on title and abstract screening. Thirty-one could not be accessed initially, but 19 of these were found in library searches and so 12 were excluded because they could not be accessed and one additional record was identified through reference checks. A total of 289 records were pulled through to full-paper screening, at which stage the majority were excluded because of a lack of use of a validated measure that would allow an attachment classification to be measured. Seven papers were data extracted and assessed for risk of bias. All of these papers included secure attachment outcomes, and six of these included disorganised attachment outcomes. *Figure 4* shows the PRISMA flow diagram. A list of the excluded studies is in *Appendix 5*.

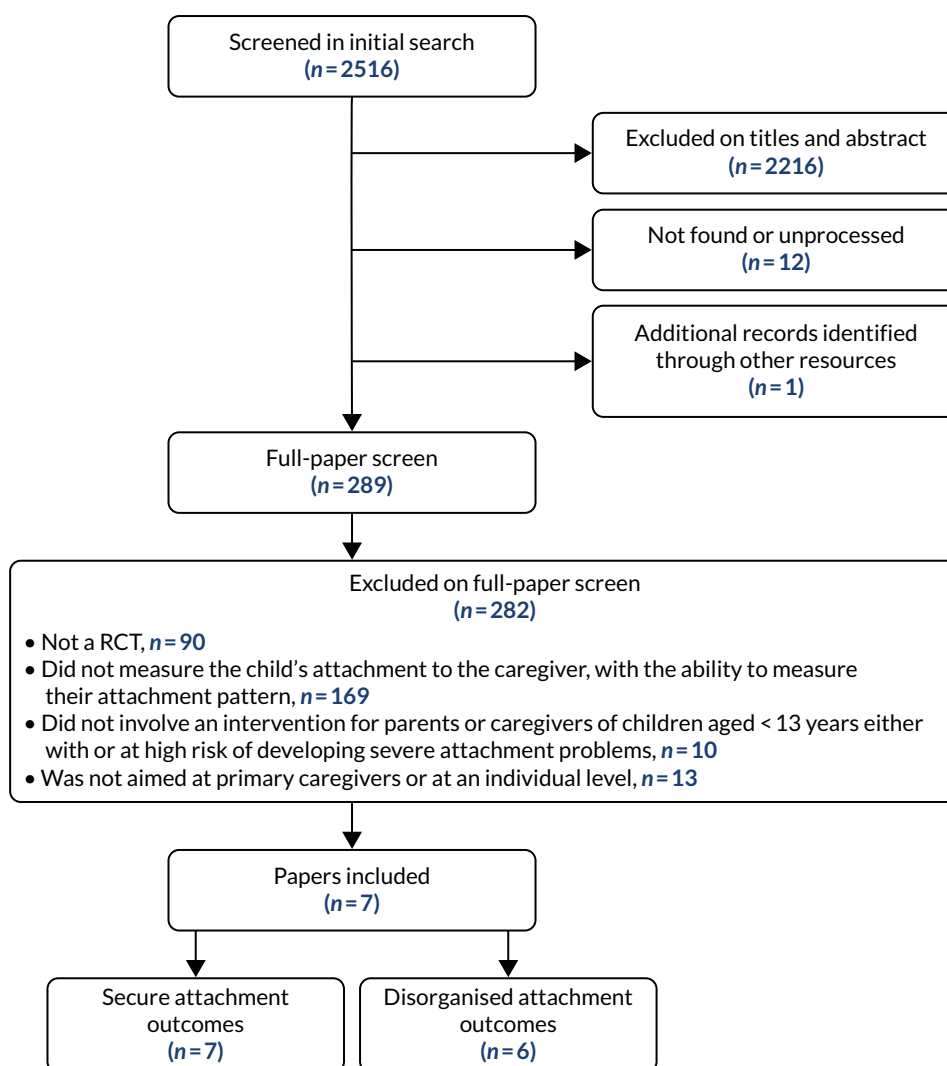


FIGURE 4 The PRISMA diagram showing the numbers of included and excluded papers at each stage of the systematic review for review 1.

Study characteristics (review 1)

Different interventions were identified, including The Healthy Families Durham programme, Circle of Security – Parenting/Intensive, baby massage classes, Minding the Baby, Baby Wearing and Mothering from the Inside Out. All interventions had a similar focus to reduce the rates of disorganised attachment and increase the rates of secure attachment. Two studies look at the COS intervention but with different adaptations. Circle of Security – Parenting focuses on sensitive responding to child distress as opposed to times of no distress, and consists of 10 sessions. Circle of Security – Intensive is a 20-session intervention that allows for an individualised procedure. Mothering from the Inside Out is a metallisation-based therapy, delivered weekly over 12 weeks, that focuses heavily on parental reflective functioning, enabling the mother to cope better with her child’s emotional distress. Similarly, Minding the Baby is an intensive weekly home visiting service consisting of developmental guidance, supporting attachment, signposting and support with basic supplies, and once again focusing on parental reflective functioning. Baby-wearing is a high physical contact intervention in which mothers are encouraged and instructed to use a baby-wearing carrier for 1 hour per day, focusing on using skin-to-skin contact to improve attachment. Baby massage involves six 1-hour sessions that allow the parent to learn about their infant and their cues and signals. Healthy Families Durham is a home visiting programme consisting of weekly visits for 12 months aimed at encouraging and supporting parent and child interaction.

All interventions were delivered to families who were at higher risk of developing attachment problems for many different reasons. This included mothers who had a history of substance abuse or mental ill health. Two samples included young mothers, with one of these samples including adolescent mothers and the one including young mothers from poor, underserved communities. Another sample looked at all mothers in low socioeconomic status communities. Last, one sample were at risk if parents met one of six risk factors; younger than 16 years old, history of childhood maltreatment, mental health symptoms, concerns about addictive behaviours, history of or current concerns about domestic violence or low support. Sample sizes ranged from 33 to 136 participants, with a variety of ethnicities in each sample. Two samples were majority Caucasian, one sample was majority Hispanic/Latino and one study reported both Hispanic/Latino and Caucasian as being the majority ethnicity. Another two studies reported the majority ethnicity to be African American. One study did not specify ethnicity. Five samples were based in the USA, one sample in the UK and the other in Germany. All interventions were delivered to mothers and infants; no studies included a male caregiver.

Four studies used the SSP to measure attachment, while two studies used a modified version of SSP for preschool children. One study used the Global Rating Scales used to classify attachment type from the Still Face Paradigm. These outcome measures all include observation of child behaviour, which was then coded to provide an attachment classification. As discussed in *Chapter 2, Meta-analyses methods*, we used the frequencies of children being classified as showing either secure attachment or disorganised attachment for the meta-analyses. See *Appendix 2, Table 22*, for further study characteristics of the seven studies included in this update.^{56,57,79-83}

Meta-analysis findings (review 1)

We conducted a random-effects model meta-analysis by combining the studies from this review with those from the original HTA report and the subsequent updates. The analyses separately address intervention effects on disorganised attachment outcomes,⁴⁷ and those reporting secure attachment outcomes (currently unpublished).

Harbord regression-based tests were used to investigate whether or not the small-study effect (or funnel-plot asymmetry) was present. Statistical heterogeneity was assessed using Cochran’s Q through the chi-squared test and was quantified using the I^2 -test. Statistical analysis was performed using Review Manager 5.3. The results were considered statistically significant when the two-sided p -value was < 0.05 (see *Chapter 2, Data extraction*, and *Meta-analyses methods*, for detail).

Reducing disorganised attachment

Figure 5 shows the meta-analysis of the 20 included studies over the three reviews. Eight papers were from the original 2015 HTA report, six were from the 2017 update and six were from the current update.

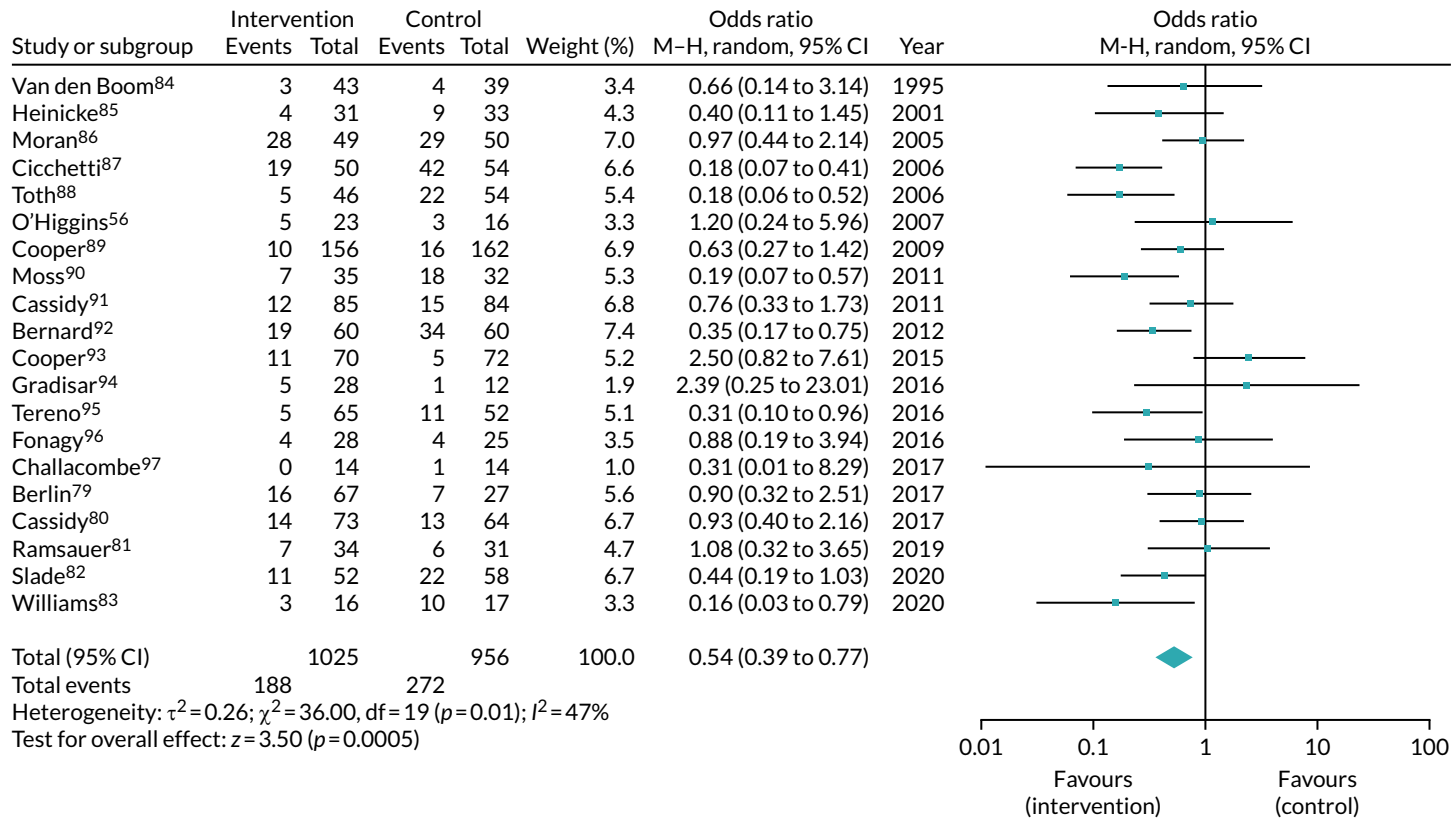


FIGURE 5 Results of the disorganised meta-analysis, including ORs.

The overall meta-analysis results show statistically significant intervention effects ($p < 0.001$). The pooled odds ratio (OR) is 0.54 [95% confidence interval (CI) 0.39 to 0.77]. Hence, there is evidence that attachment-focused parenting interventions decrease disorganised attachment.

Publication bias was assessed by examining the asymmetry of the funnel plot (Figure 6). There was no indication of publication bias (Harbord test statistic = 0.51; $p = 0.609$).

Increasing secure attachment

Figure 7 shows the meta-analysis of the 26 included studies over the three reviews. This comprises 13 studies from the original review, six studies from the first update (conducted in 2017) and seven studies from the current update. The overall meta-analysis results show statistically significant intervention effects ($p < 0.001$), and the pooled OR is 1.85 (95% CI 1.36 to 2.52). Hence, there is evidence that parenting intervention increases secure attachment.

Publication bias was assessed by examining the asymmetry of the funnel plot (Figure 8). There was no indication of publication bias (Harbord test statistic = 0.02; $p = 0.9864$).

Exploratory analyses

The included studies for both disorganised and secure analyses were stratified into groups based on the characteristics of the studies: number of sessions, video feedback, age of child and whether or not a male caregiver was included. The results of these are to be interpreted with caution as no study compared each of these directly.

Reducing disorganised attachment

Figure 9 demonstrates the subgroup meta-analysis by the number of sessions. There was no significant difference ($p = 0.14$). The biggest effect was seen in the 16+ group (0.38, 95% CI 0.24 to 0.62; $p < 0.001$).

Figure 10 shows the analysis by whether or not video feedback was used, and there was no significant difference ($p = 0.51$).

Figure 11 shows the analysis by age of child and there was no significant difference ($p = 0.14$). The biggest effect was seen in the group where the children were > 6 months (0.39, 95% CI 0.22 to 0.69; $p = 0.001$).

Figure 12 shows the analysis by whether or not a male caregiver was included, and there was no significant difference ($p = 0.63$).

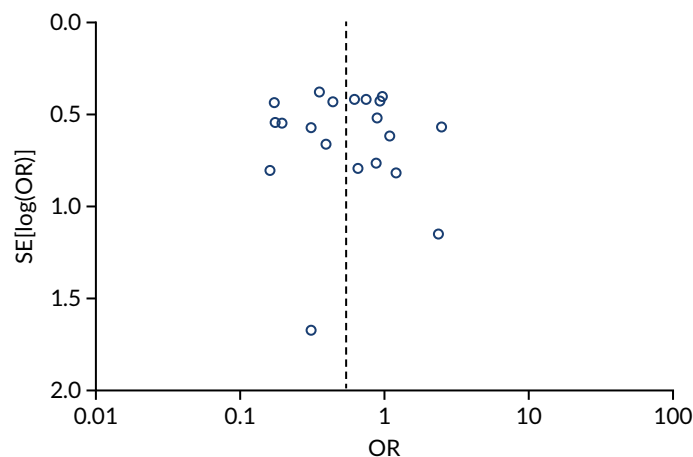


FIGURE 6 Funnel plot of the studies included in the disorganised meta-analysis.

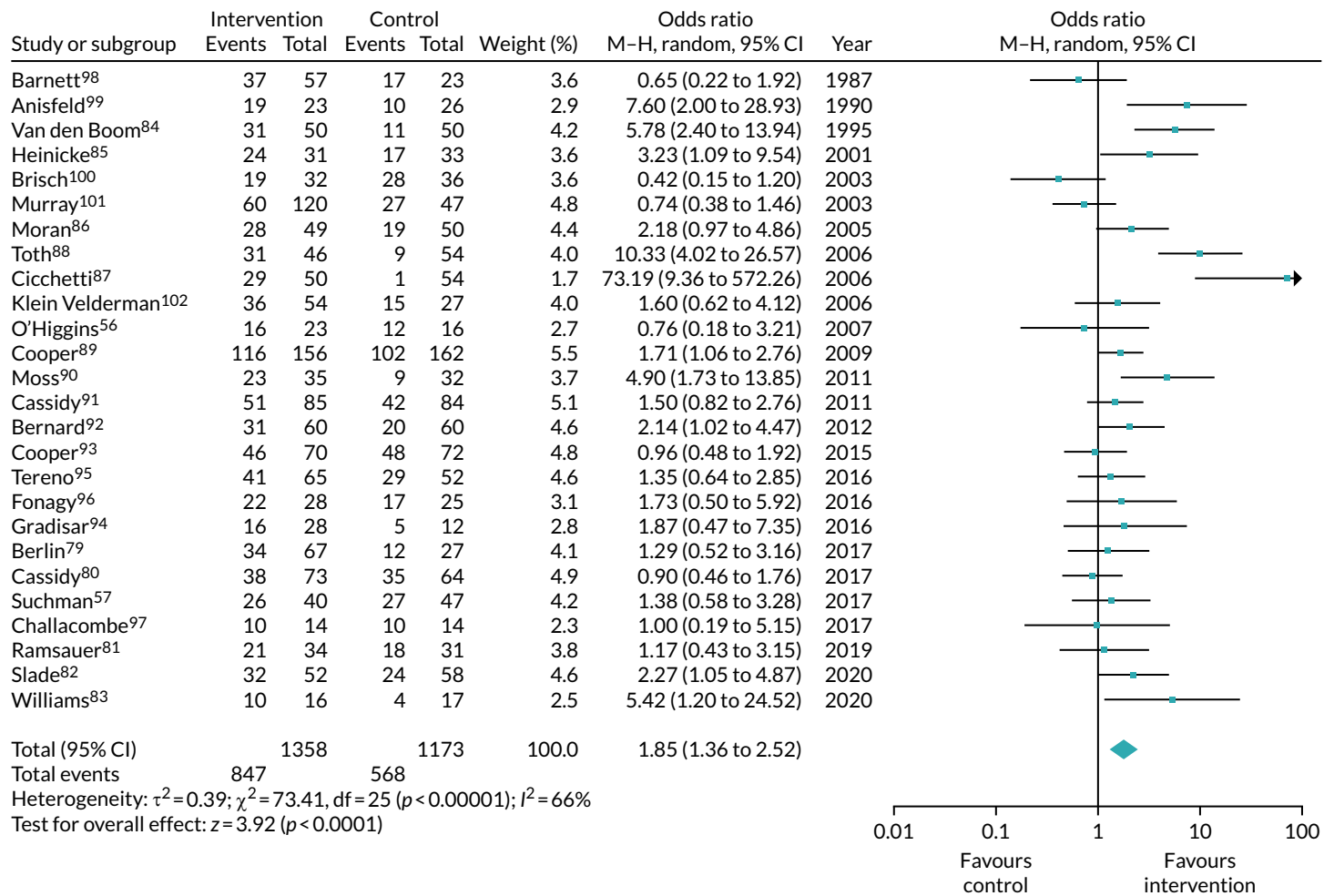


FIGURE 7 Results of the secure meta-analysis, including ORs.

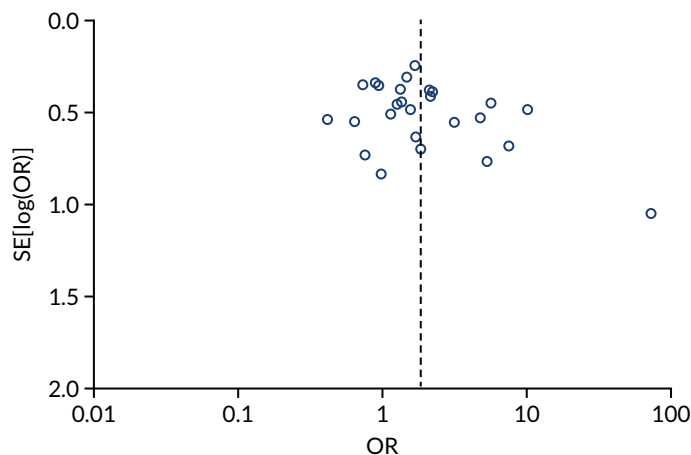


FIGURE 8 Funnel plot of the studies included in the secure meta-analysis.

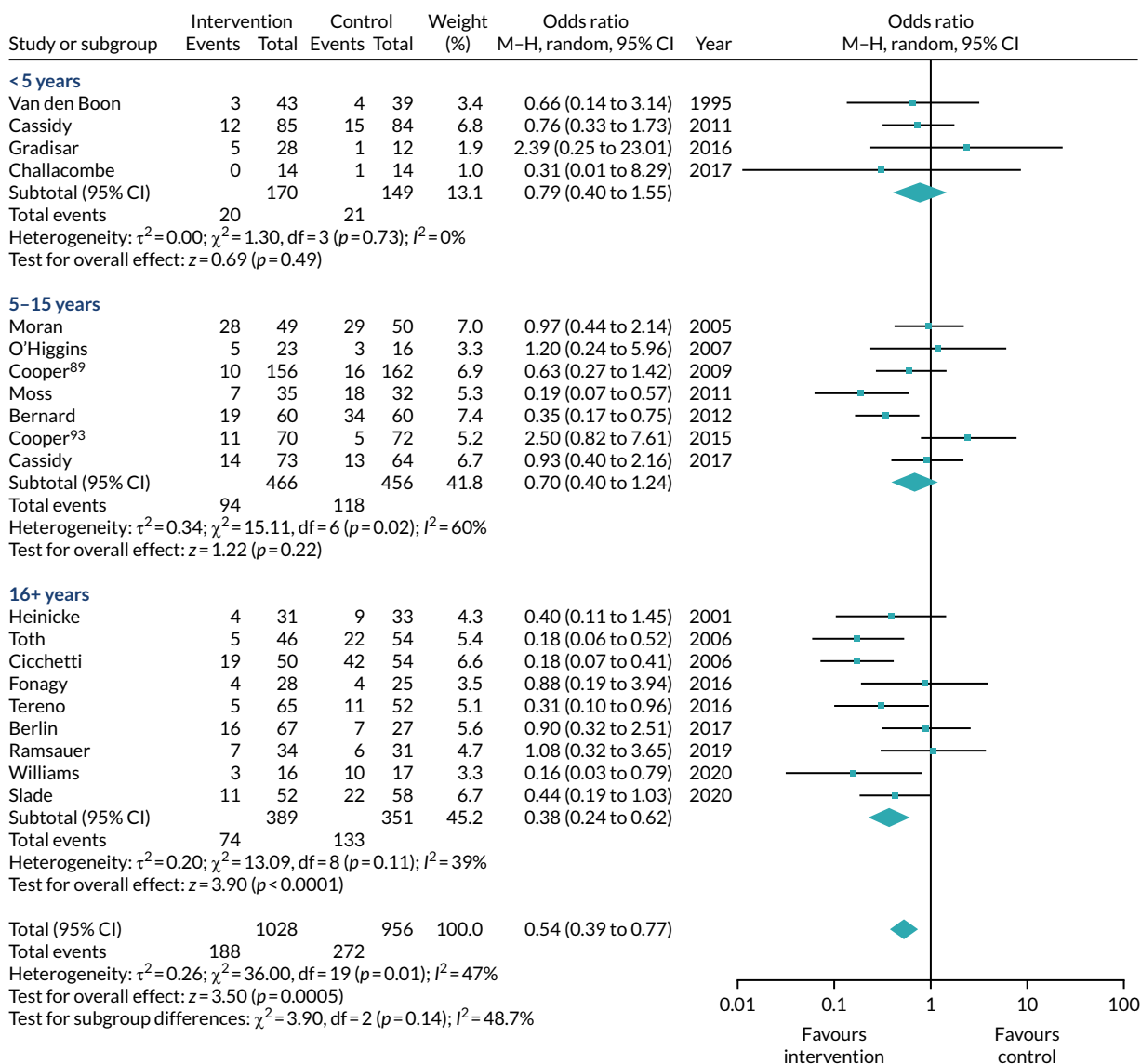


FIGURE 9 Disorganised subgroup analysis for number of sessions.

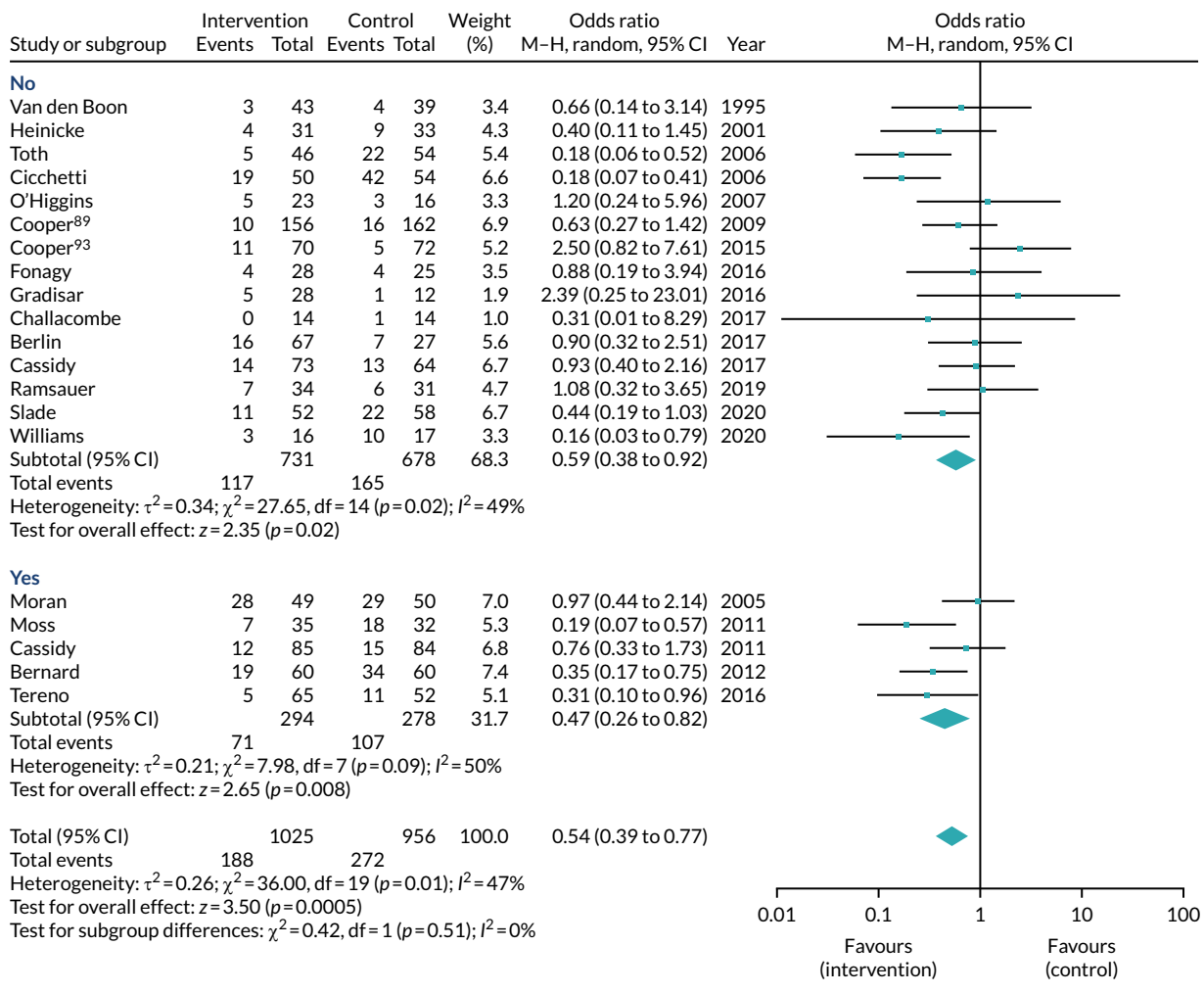


FIGURE 10 Disorganised subgroup analysis for use of video feedback.

Increasing secure attachment

Figure 13 demonstrates the subgroup meta-analysis by the number of sessions. There was no significant difference ($p=0.07$); however, the highest OR was observed in the < 5 sessions group (2.05, 95% CI 1.12 to 3.75; $p=0.02$).

Figure 14 shows the analysis by whether or not video feedback was used, and there was no significant difference between studies that did and studies that did not ($p=0.55$).

Figure 15 shows the analysis by age of child and there was no significant difference ($p=0.43$).

Figure 16 shows the analysis by whether or not a male caregiver was included, and there was no significant difference ($p=0.30$).

Risk-of-bias assessment (review 1)

Table 16 shows the results of the risk-of-bias assessment of the seven studies included in this update, which was carried out using the ROB-2.⁵⁹ Most studies were rated as being at low risk of bias, with one showing some concerns due to the lack of information provided about the randomisation procedures or analyses accounting for dropouts. Studies could be classified as being at low risk of bias despite having attrition when the authors account for this in the analyses, as specified in the ROB-2 guidance. We include the risk-of-bias assessment outcomes for the included studies from the previous systematic review¹³ and update⁴⁷ in Appendix 3, Table 24.

SYSTEMATIC REVIEW RESULTS

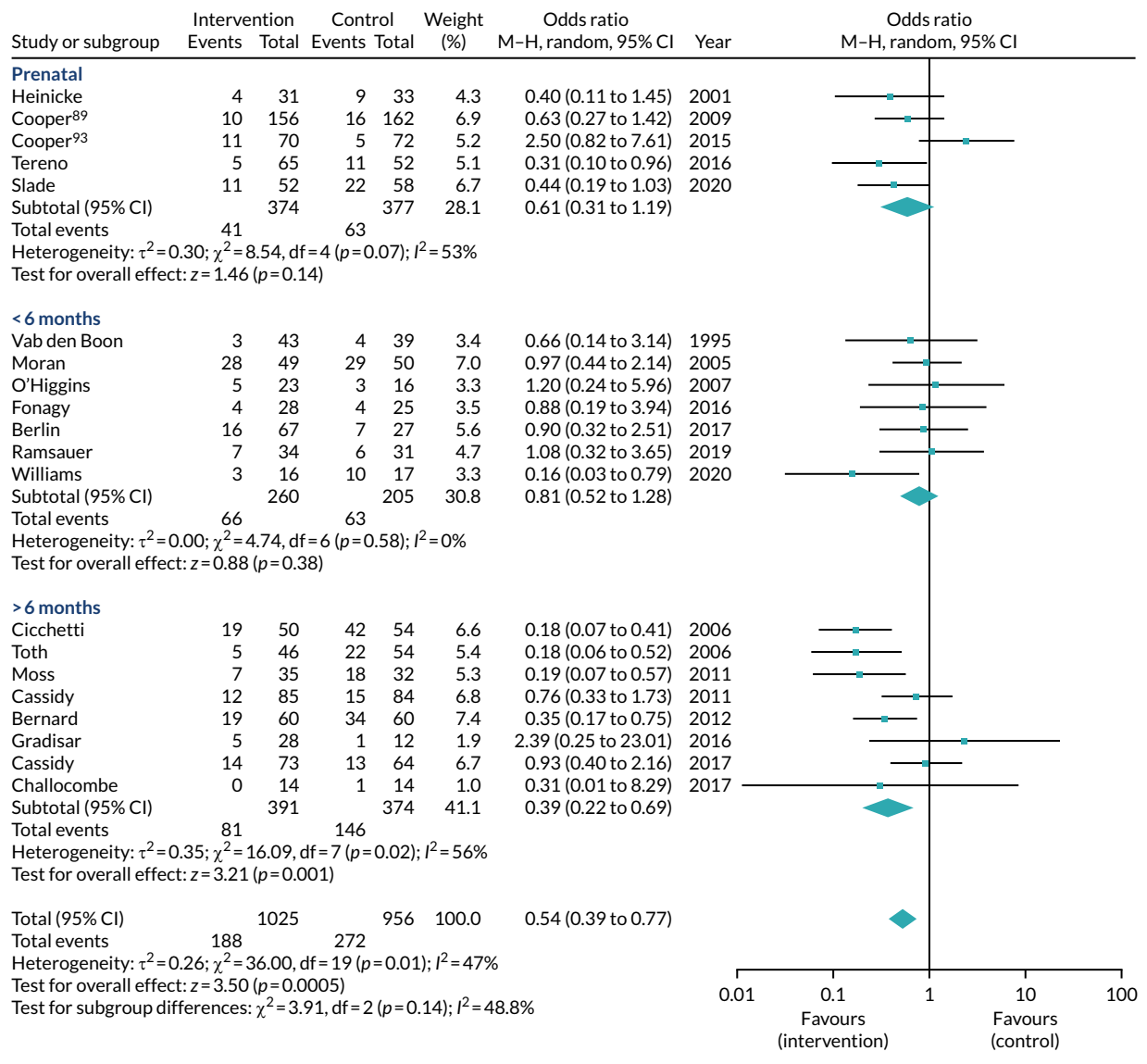


FIGURE 11 Disorganised subgroup analysis for age of child.

Results (review 2)

Review 2 focused on the available evidence for the 10 named interventions identified in the survey as 'most commonly used'. We included all available study designs, including, but not limited to, RCTs, non-randomised comparisons, pre and post designs and case series. Parental sensitivity was included as an outcome in addition to attachment.

PRISMA diagram

A total of 1198 papers were screened in this initial search. We excluded 442 at the first sift based on title and abstract; 756 were pulled through to the full-paper screen in sift 2. The PRISMA diagram in Figure 17 shows the reasons for exclusion at this stage. Although the number of records we were unable to access was fairly large, this was because large numbers of book chapters were identified in the searches. Owing to the extensive grey literature searching the reviewers carried out, we can be confident that all relevant records were identified. We had 182 records for a further full-paper screen in sift 3. Again, reasons for exclusion are provided in the PRISMA diagram. After this third sift, there were 48 records that we were unable to access despite the help of library services, and 29 papers were excluded as they reported the same results from a sample that was already included. We included 61 papers^{87,88,91,92,96,102-155} across all of the named interventions to data extraction and assessment of risk of bias. Figure 17 shows the PRISMA flow diagram, and a list of excluded studies is in Appendix 4.

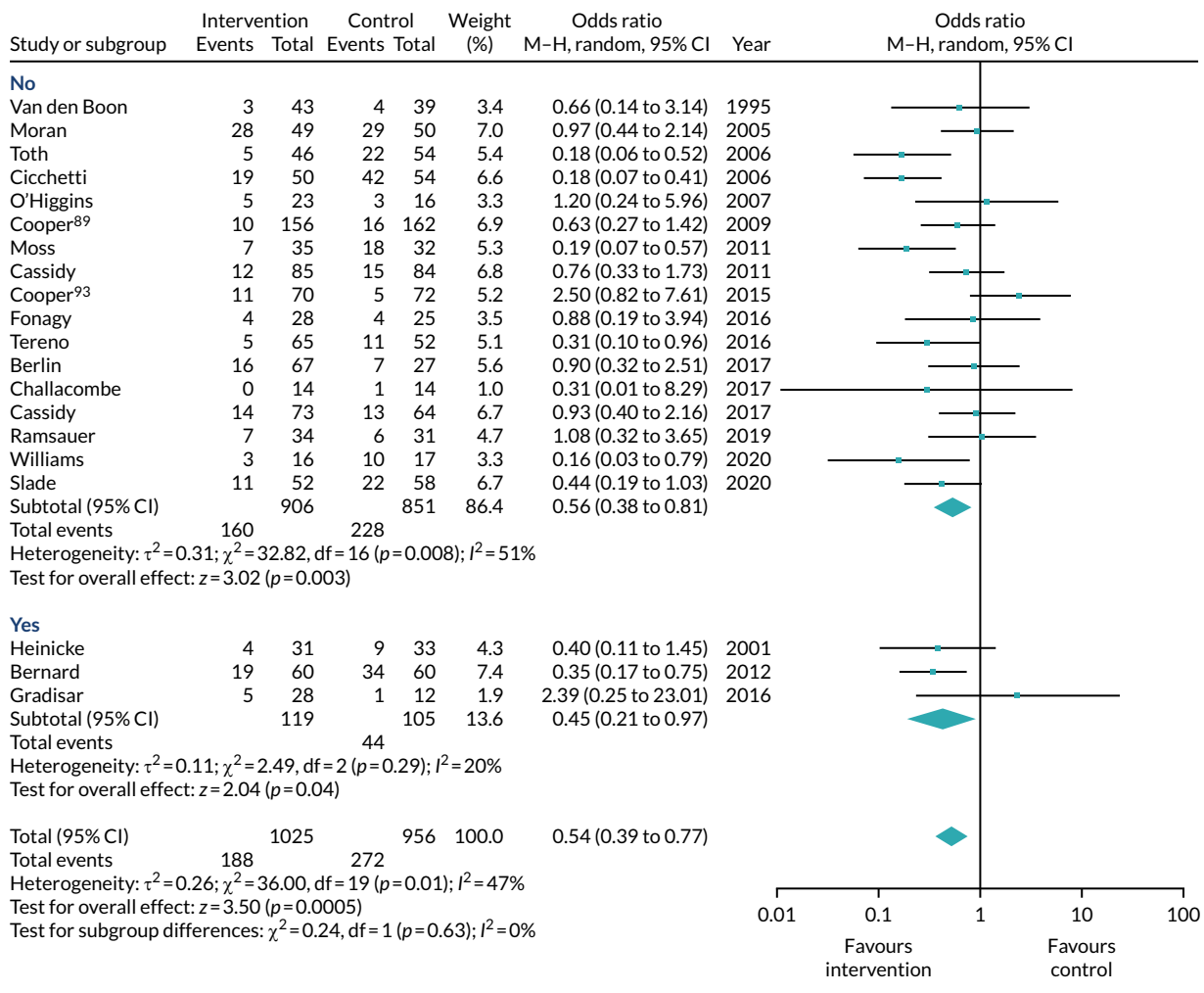


FIGURE 12 Disorganised subgroup analysis for inclusion of male caregiver.

Study characteristics

Table 17 shows the evidence available for each of the 10 named interventions in terms of number of included papers, their study design and how many papers reported either child attachment and attachment disorder outcomes, parental sensitivity outcomes or both of these outcomes. Interventions were included if they followed the manualised intervention or were a close adaptation of one of the named interventions (e.g. COS-I, VIPP-FC, VIPP-SD).

Thirty of the included papers reported child attachment outcomes (most commonly the SSP, but also through coded observations, AQS and Kern's Security Scale) and 39 used parental sensitivity measures. This was mainly measured through coded observations, using the Emotional Availability Scales, CARE-index, Maternal Behaviour Q-sort, Ainsworth's Sensitivity Scales and Observational Ratings of the Caregiving Environment scales). We use the term parental sensitivity throughout this report, although it should be noted that many of the papers referred to this as maternal sensitivity, with main outcomes for sensitivity usually being taken from the mother only. Across all included studies, only eight included both child attachment outcomes and parental sensitivity outcomes. Table 18 shows the age range that each of the included studies targeted, for each of the 10 named interventions. One study reported child's age at follow-up, which was 9 years, but children received the intervention at approximately 10 months old.¹²⁴ Two studies that looked at the effectiveness of VIG did not report the age of the child.^{88,150} Most studies reported the mean age of the child or the age at which the child started the intervention.

SYSTEMATIC REVIEW RESULTS

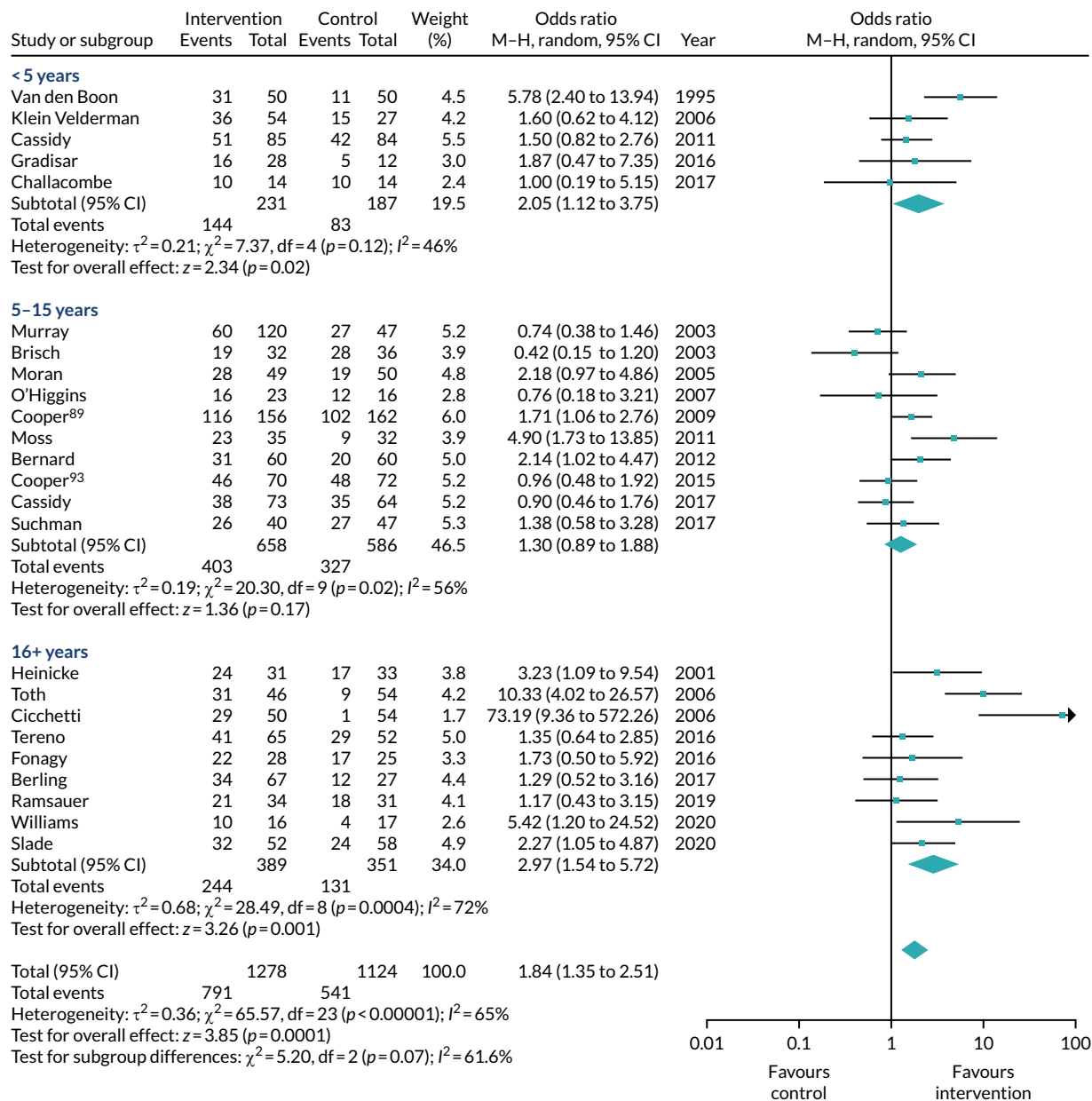


FIGURE 13 Secure subgroup analysis for number of sessions.

The aim of review 2 was to enable a comprehensive overview of the current literature for each of the named interventions; therefore, when setting the criteria the priority was to be broad and inclusive to avoid excluding relevant studies. The aim was to identify the available evidence for each of the interventions, and not to compare them in terms of efficacy. Owing to the varying numbers of papers for each of the 10 named interventions, and the diverse outcome measures used, it was not felt to be appropriate to conduct meta-analyses as not all studies or interventions would have been able to be included.

See Appendix 2, Table 23, for the characteristics of each of the studies included in review 2.

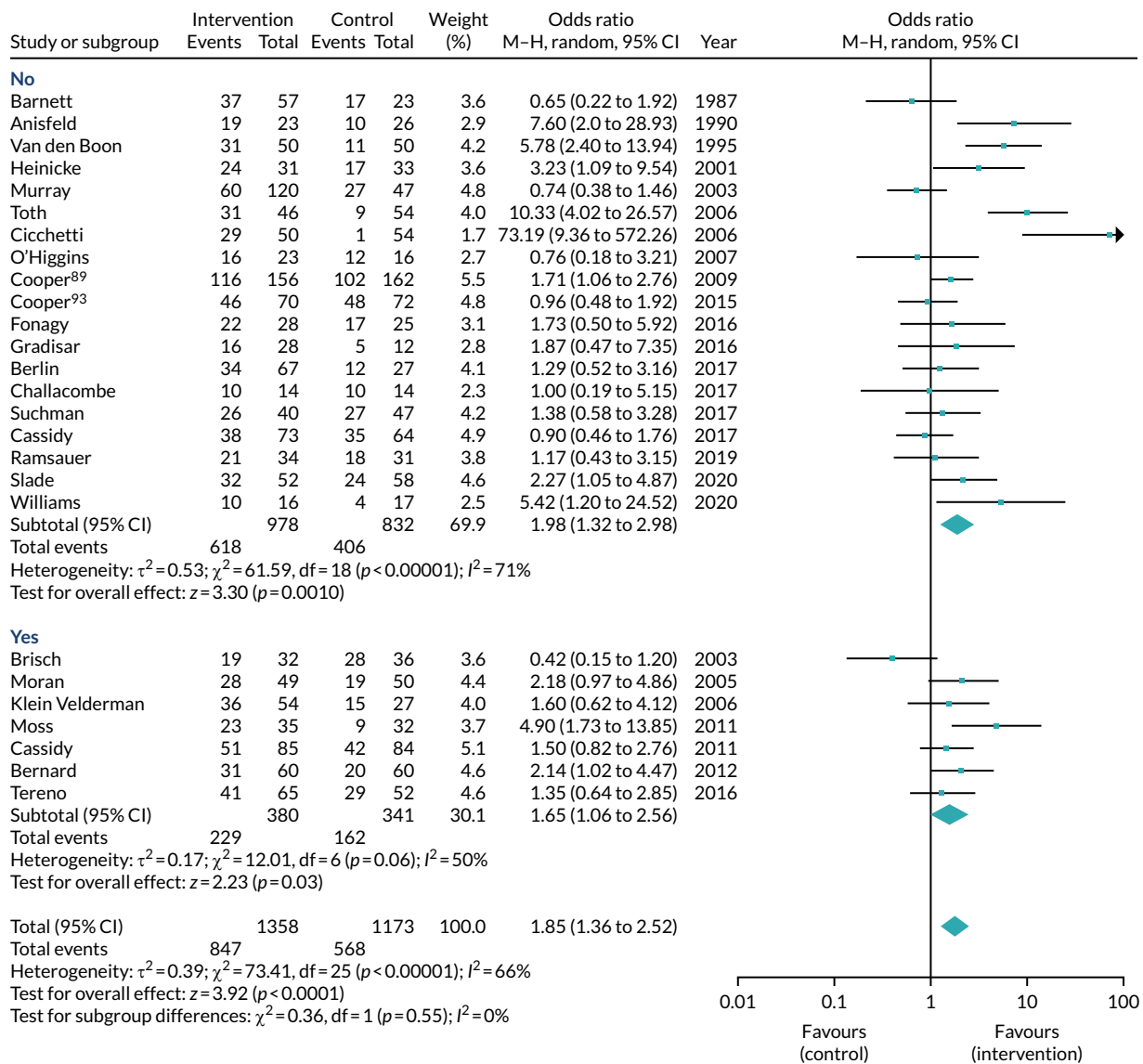


FIGURE 14 Secure subgroup analysis for use of video feedback.

Risk-of-bias assessment

Tables 19 and 20 show the risk-of-bias assessment results for each of the studies, split by named interventions and study design. ROB-2 was used for the RCTs, and ROBINS-I was used for non-randomised comparison group designs. Some studies used case series designs and therefore did not allow for a meaningful risk-of-bias assessment to be conducted for comparison with studies that had other designs.

Commonly identified issues include a lack of blinded coders, a lack of information on analysis procedures (including how the authors overcome challenges around attrition and missing data) and limited information on processes used for recruiting and allocating participants to groups. Studies may still be classified as low risk of bias despite having attrition when the authors account for this in the analyses, as specified in the risk-of-bias tool guidance.

Summary of findings (review 2)

We found the largest number of studies for VIPP and ABC; however, despite this, the survey results indicated that in routine practice these were the least commonly used of the top 10 named interventions (see Appendix 2, Table 23, for further study characteristics).

SYSTEMATIC REVIEW RESULTS

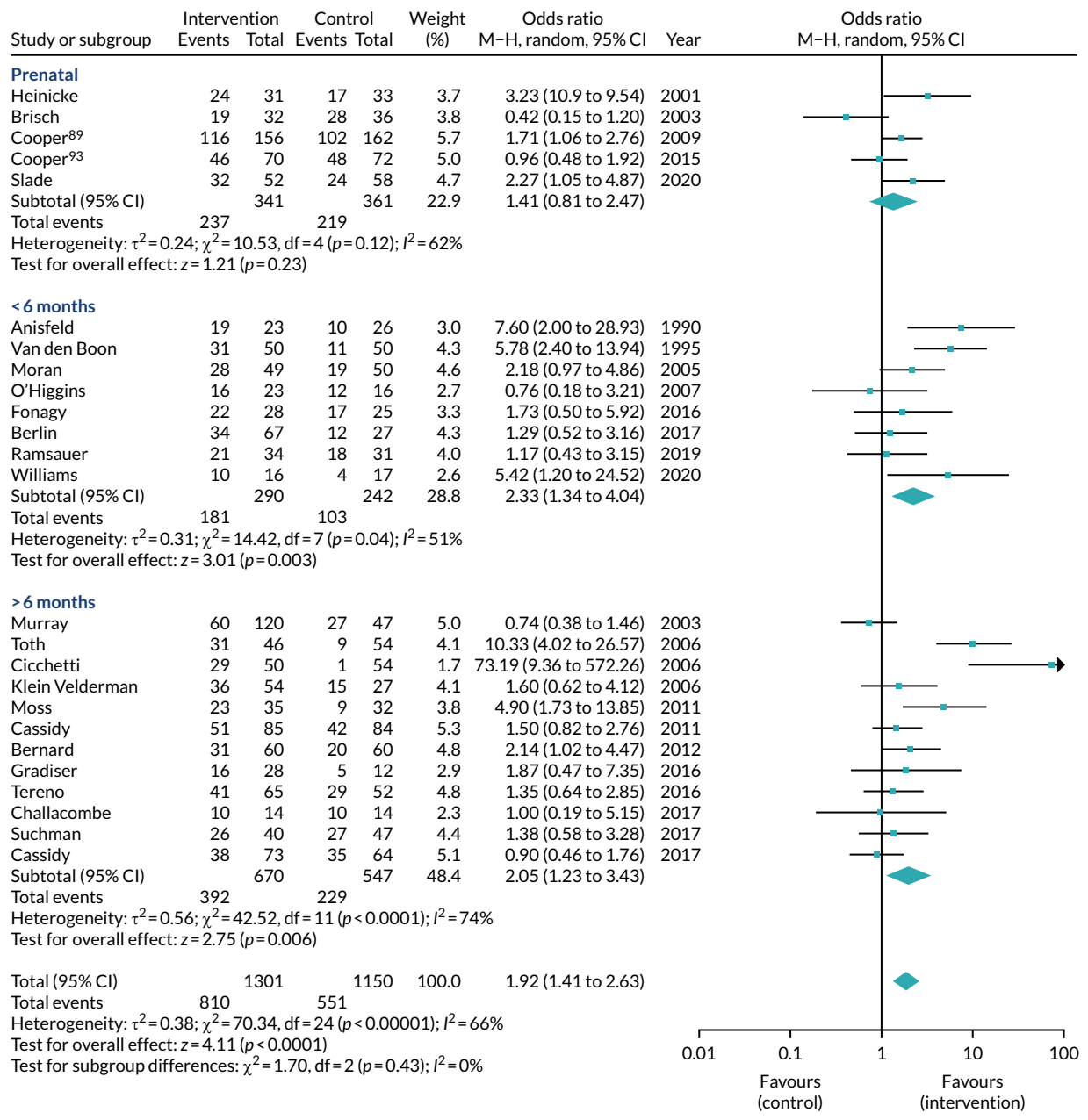


FIGURE 15 Secure subgroup analysis for age of child.

VIPP

We identified 17 papers that investigated the effectiveness of VIPP. Nearly all of the 17 included adaptations of VIPP, including VIPP-SD (Sensitive Discipline); VIPP-FC (Foster Carers); VIPP-R (Discussions on the Representational Level); VIPP-V (Visual or visual-and-intellectual disabilities); VIPP-AUTI (Children with Autism); VIPP-TM (Turkish Minorities); iBASIS-VIPP (Intervention within the British Autism Study of Infant Siblings); and VIPP-CO (Community). Fifteen of these were RCTs, 14 of which measured paternal sensitivity using a range of measures including the Ainsworth Sensitivity Scale;⁵ Emotional Availability Scale (EAS);¹⁵⁶ Maternal Behaviour Q-Set;¹⁵⁷ National Institute of Child Health and Human Development Scales;¹⁵⁸ Seven-point rating scales for Supportive presence and Intrusiveness;¹⁵⁹ and Manchester Assessment of Caregiver–Infant interaction.¹⁶⁰ Of the 14 RCT studies measuring parental sensitivity, six^{102–104,108,114,116} showed an increase in sensitivity after the intervention compared with the control group. One study¹⁰² established that intervention group mothers were more sensitive than control group mothers, although the follow-up found no long-term effects in terms of improved maternal sensitivity.¹⁰⁹ A further seven^{105,110–113,115,117} RCTs found no evidence to suggest that

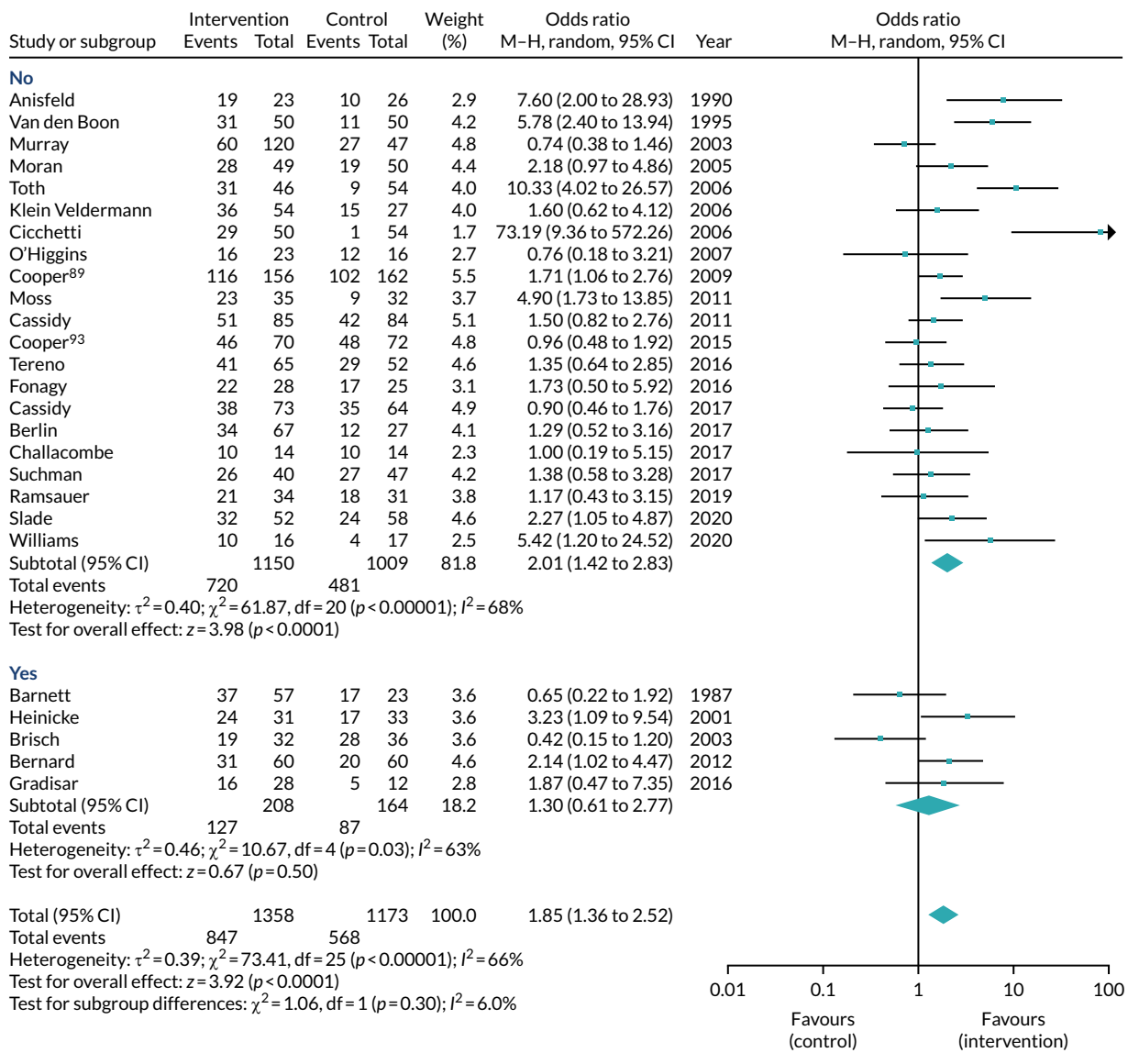


FIGURE 16 Secure subgroup analysis for inclusion of male caregiver.

TABLE 16 Risk-of-bias assessment for review 1

Authors, year	Randomisation process	Deviations from the intended interventions	Missing outcome data	Measurement of outcome	Selective reporting of results	Overall risk-of-bias judgement
Berlin <i>et al.</i> , 2017 ⁷⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Low
Cassidy <i>et al.</i> , 2017 ⁸⁰	Low risk	Low risk	Low risk	Low risk	Low risk	Low
O'Higgins, 2007 ⁵⁶	Some concerns	Some concerns	Low risk	Low risk	Low risk	Some concerns
Ramsauer <i>et al.</i> , 2019 ⁸¹	Low risk	Low risk	Low risk	Low risk	Low risk	Low
Slade <i>et al.</i> , 2020 ⁸²	Low risk	Low risk	Low risk	Low risk	Low risk	Low
Williams and Turner, 2020 ⁸³	Low risk	Low risk	Low risk	Low risk	Low risk	Low
Suchman <i>et al.</i> , 2017 ⁵⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Low

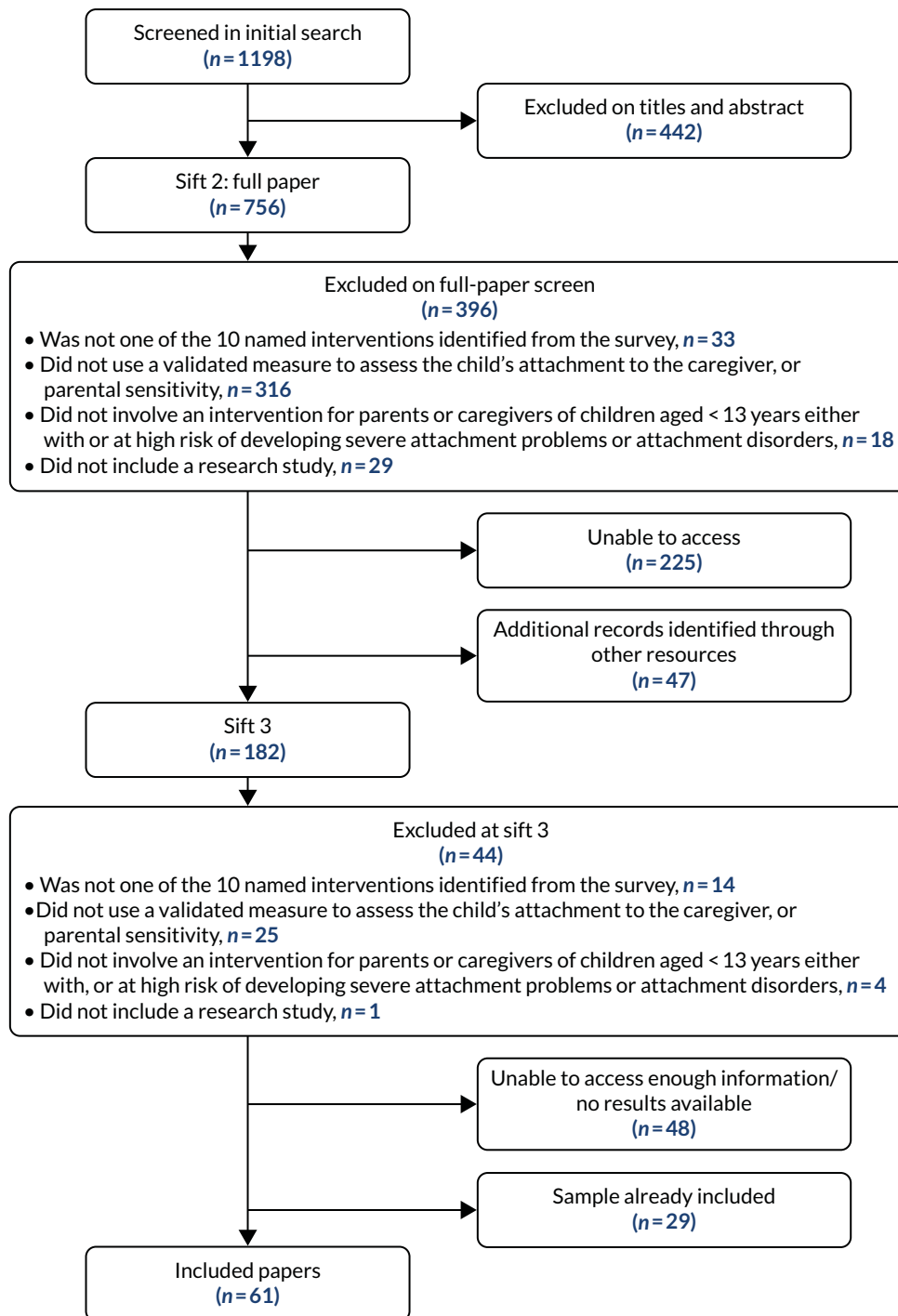


FIGURE 17 The PRISMA diagram showing the numbers of included and excluded papers throughout each stage of the systematic review for review 2.

VIPP improves parental sensitivity. Among the 15 RCTs, only four reported attachment outcomes, using the SSP⁵ and the Attachment Q-Set¹⁶¹ and AQS.¹⁶² Three of these studies^{102,108,109} reported no intervention effects on attachment security, although one study found no long-term effects of improved attachment security.¹⁰⁹ The other study has not yet coded for the SSP and therefore has not drawn any conclusions (Oliveira *et al.*, University College London, 8 December 2020, unpublished data).

Two of the 17 papers included non-randomised studies;^{106,107} both of these measured parental sensitivity using the EAS¹⁵⁶ and an adapted version of the Global Ratings Scale.¹⁶³ Both papers indicated that VIPP-R and VIPP-CO are effective in enhancing maternal sensitivity. One of these

TABLE 17 Identified records for each of the 10 named interventions identified in the survey

Named intervention	Number of studies	Study designs	Outcomes, <i>n</i>		
			Child attachment	Parental sensitivity	Both child attachment and parental sensitivity
VIPP	17	RCT, <i>n</i> = 15; NRSI, <i>n</i> = 2; case study, <i>n</i> = 0	5	17	5
ABC	14	RCT, <i>n</i> = 11; NRSI, <i>n</i> = 2; case study, <i>n</i> = 1	4	10	0
COS	10	RCT, <i>n</i> = 4; NRSI, <i>n</i> = 3; case study, <i>n</i> = 3	10	1	1
PIP	8	RCT, <i>n</i> = 6; NRSI, <i>n</i> = 2; case study, <i>n</i> = 0	6	4	2
VIG	6	RCT, <i>n</i> = 2; NRSI, <i>n</i> = 2; case study, <i>n</i> = 2	0	6	0
CPP	3	RCT, <i>n</i> = 3; NRSI, <i>n</i> = 0; case study, <i>n</i> = 0	3	0	0
DDP	2	RCT, <i>n</i> = 0; NRSI, <i>n</i> = 2; case study, <i>n</i> = 0	2	0	0
WWW	2	RCT, <i>n</i> = 0; NRSI, <i>n</i> = 2; case study, <i>n</i> = 0	2	0	0
Theraplay	1	RCT, <i>n</i> = 0; NRSI, <i>n</i> = 1; case study, <i>n</i> = 0	0	1	0
ICP	0	RCT, <i>n</i> = 0; NRSI, <i>n</i> = 0; case study, <i>n</i> = 0	0	0	0

NRSI, non-randomised studies of interventions.

TABLE 18 Age range for each of the included studies for each of the 10 named interventions

Intervention	Age range (years)				
	0-3	4-6	7-9	10-11	12-13
VIPP	17	0	0	0	0
ABC	13	1	0	0	0
COS	6	4	0	0	0
PIP	8	0	0	0	0
VIG	4	0	0	0	0
CPP	3	0	0	0	0
DDP	0	0	2	0	0
WWW	2	0	0	0	0
Theraplay	1	0	0	0	0
ICP	0	0	0	0	0

TABLE 19 Risk-of-bias assessment results for review 2 RCTs using ROB-2

Intervention	Authors and year	Randomisation process	Deviations from the intended interventions	Missing outcome data	Measurement of outcome	Selective reporting of results	Overall risk-of-bias judgement
VIPP	Alsancak-Akbulut <i>et al.</i> , 2021 ¹⁰³	Low	Low	Low	Low	Low	Low
	Barone and Lionetti, 2019 ¹⁰⁴	Low	Low	Low	Low	Low	Low
	Casonato <i>et al.</i> , 2017 ¹⁰⁵	Low	Some concerns	Low	Low	Some concerns	Some concerns
	Kalinauskiene <i>et al.</i> , 2009 ¹⁰⁸	Some concerns	Some concerns	Low	Low	Some concerns	Some concerns
	Klein <i>et al.</i> , 2006 ¹⁰²	Some concerns	Some concerns	Low	Low	Some concerns	Some concerns
	Klein Velderman <i>et al.</i> , 2006 ¹⁰⁹	Low	Low	Low	Low	Low	Low
	Negrão <i>et al.</i> , 2014 ¹¹⁰	Low	Low	Low	Low	Low	Low
	Platje <i>et al.</i> , 2018 ¹¹¹	Low	Low	Low	Low	Low	Low
	Poslawsky <i>et al.</i> , 2015 ¹¹²	Low	Low	Low	Low	Low	Low
	Shoemaker <i>et al.</i> , 2020 ¹¹³	Low	Low	Low	Some concerns	Low	Some concerns
	Van Zeijl <i>et al.</i> , 2006 ¹¹⁴	Low	Low	Low	Some concerns	Low	Some concerns
	Whitehouse <i>et al.</i> , 2019 ¹¹⁵	Low	Low	Low	Low	Low	Low
	Yagmur <i>et al.</i> , 2014 ¹¹⁶	Low	Some Concerns	Low	Low	Low	Some concerns
	Green <i>et al.</i> , 2015 ¹¹⁷	Low	Low	Low	Low	Low	Low
Paula Oliveira <i>et al.</i> (University College London; 08.12.2020)	Low	Low	Low	Low	Low	Low	
ABC	Berlin <i>et al.</i> , 2014 ¹¹⁸	Low	Low	Low	Low	Low	Low
	Berlin <i>et al.</i> , 2018 ¹¹⁹	Low	Low	Low	Low	Low	Low
	Yarger <i>et al.</i> , 2016 ¹²⁰	Low	Low	Low	Low	Low	Low
	Yarger <i>et al.</i> , 2020 ¹²¹	Low	Low	Low	Low	Low	Low
	Lind <i>et al.</i> , 2020 ¹²²	Low	Low	Low	Low	Low	Low
	Bernard <i>et al.</i> , 2012 ⁹²	Low	Low	Low	Low	Low	Low

TABLE 19 Risk-of-bias assessment results for review 2 RCTs using ROB-2 (continued)

Intervention	Authors and year	Randomisation process	Deviations from the intended interventions	Missing outcome data	Measurement of outcome	Selective reporting of results	Overall risk-of-bias judgement
	Bernard <i>et al.</i> , 2015 ¹²³	Low	Some concerns	Low	Some concerns	Low	Some concerns
	Zajac <i>et al.</i> , 2020 ¹²⁴	Low	Low	Low	Some concerns	Some concerns	Some concerns
	Dozier <i>et al.</i> , 2009 ¹²⁵	Low	Some Concerns	Low	High	Low	High
	Raby <i>et al.</i> , 2019 ¹²⁶	Low	Low	Low	Low	Low	Low
	Perrone <i>et al.</i> , 2020 ¹²⁹	Low	Low	Low	Low	Low	Low
COS	Cassidy <i>et al.</i> , 2017 ⁸⁰	Low	Low	Low	Low	Low	Low
	Hanlon-Dearman <i>et al.</i> , 2017 ¹³³	Some concerns	Some concerns	Low	Low	Low	Some concerns
	Ramsauer <i>et al.</i> , 2020 ⁸¹	Low	Low	Low	Low	Low	Low
	Cassidy <i>et al.</i> , 2011 ⁹¹	Low	Low	Low	Low	Low	Low
PIP	Fonagy <i>et al.</i> , 2016 ⁹⁶	Low	Low	Low	Low	Low	Low
	Cicchetti <i>et al.</i> , 2006 ⁸⁷	Low	Low	Low	Low	Low	Low
	Lieberman <i>et al.</i> , 1991 ¹³⁸	Some concerns	Some concerns	Low	Some concerns	Some concerns	Some concerns
	Robert-Tissot <i>et al.</i> , 1996 ¹³⁹	Some concerns	Some concerns	Low	Low	Some concerns	Some concerns
	Salomonsson and Sandell, 2011 ¹⁴⁰	Low	Low	Low	Low	Low	Low
	Salomonsson <i>et al.</i> , 2015 ^{141,142}	Low	Low	Low	Low	Low	Low
VIG	Barlow <i>et al.</i> , 2016 ¹⁴⁵	Low	Low	Low	Low	Low	Low
	Hoffenkamp <i>et al.</i> , 2015 ¹⁴⁶	Low	Low	Low	Low	Low	Low
CPP	Cicchetti <i>et al.</i> , 1999 ¹⁵¹	Some concerns	Some concerns	Low	Some concerns	Low	Some concerns
	Toth <i>et al.</i> , 2006 ⁸⁸	Low	Low	Low	Low	Low	Low
	Stronach <i>et al.</i> , 2013 ¹⁵²	Low	Low	Low	Low	Low	Low

TABLE 20 Risk-of-bias assessment results for review 2 non-randomised studies using ROBINS-I

Intervention	Authors, year	Bias due to confounding	Bias in selection of participants into the study	Bias in classification of interventions	Bias due to deviation from intended interventions	Bias due to missing data	Bias in measurement of outcomes	Bias in selection of reported result	Overall risk of bias
VIPP	Cassibba <i>et al.</i> , 2015 ¹⁰⁶	Low	Low	Low	Low	Low	Low	Low	Low
	Iles <i>et al.</i> , 2017 ¹⁰⁷	Moderate	Low	Low	Low	Low	Moderate	Low	Moderate
ABC	Caron <i>et al.</i> , 2016 ¹²⁷	Moderate	Low	Low	Low	Low	No information	Low	Moderate
COS	Roben <i>et al.</i> , 2017 ¹²⁸	Moderate	Low	Low	Low	Low	Moderate	Low	Moderate
	Hoffman <i>et al.</i> , 2006 ¹³⁴	Moderate	Low	Low	Low	Low	Low	Low	Moderate
	Huber <i>et al.</i> , 2015 ¹³⁵	Moderate	Low	Low	Low	Moderate	Low	Low	Moderate
	Page and Caine, 2010 ¹³⁷	Low	No Information	No information	No Information	Low	No Information	No information	No information
VIG	James, Wadnerkar-Kamble and Lam-Cassettari, 2013 ¹⁴⁷	Low	Low	Low	Low	Low	Low	Low	Low
	Kennedy <i>et al.</i> , 2010 ¹⁴⁸	Moderate	Low	Low	Moderate	Low	Moderate	Low	Moderate
WWW and PIP	Cohen <i>et al.</i> , 1999 ¹⁴³	Low	Low	Low	Low	Low	Low	Low	Low
	Cohen <i>et al.</i> , 2002 ¹⁴⁴	Low	Low	Low	Low	Low	Low	Low	Low
DDP	Becker-Weidman, 2006 ¹⁵³	Moderate	Moderate	Low	Moderate	Low	Moderate	Low	Moderate
	Becker-Weidman, 2006 ¹⁵⁴	Moderate	Moderate	Low	Moderate	Low	Moderate	Low	Moderate
Theraplay	Salo <i>et al.</i> , 2020 ¹⁵⁵	Moderate	Low	Low	Low	Low	Low	Low	Moderate

studies¹⁰⁶ also measured attachment security using the SSP⁵ and, once again, showed that VIPP-R is effective in enhancing infant attachment security. However, only mothers who had an insecure attachment pattern benefited from VIPP-R.¹⁰⁶ One paper that used a RCT design also included a case series using the Disturbances of Attachment Interview³⁸ and SSP⁵ at follow-up; however, group differences were not reported because of the small sample size (Oliveira *et al.*, University College London, 8 December 2020, unpublished data).

ABC

We identified 14 papers for ABC; 11 of these included RCTs with one adaptation of the intervention being ABC-T (aimed at toddlers). Eight of these 11 RCT studies measure a change in maternal sensitivity using mainly two measures: Maternal Behaviour Q-sort¹⁵⁷ and Observational Ratings of the Caregiving Environment Sensitivity Scales^{164–166} and adaptations of the Observational Ratings of the Caregiving Environment scales. All eight RCTs found that parents who received the ABC intervention displayed higher sensitivity scores than those in the control group, providing a good evidence base on the effectiveness of ABC in regards to improving parental sensitivity.^{92,118–122,126,129} Three RCTs measured attachment using the SSP⁵ Parent attachment diaries,¹⁶⁷ which were validated against the SSP and The Kerns Security Scale.¹⁶⁸ These studies found that ABC was effective in reducing rates of disorganised attachment,⁹² reducing rates of an avoidant attachment pattern¹²⁵ and increasing perceived attachment security.¹²⁴ Of the 14 identified studies, two were non-randomised studies, both of which used a pre–post design. Both studies used the Observational Ratings of the Caregiving Environment scales¹⁶⁴ as a measure of sensitivity and found that parents showed higher levels of sensitivity post intervention than pre intervention.^{127,128} One of the 14 studies¹³⁰ was a case study design to measure attachment using the SSP.⁵ The authors found that ABC positively changed the attachment between mother and infant.

COS

The number of studies focusing on the effectiveness of COS in improving attachment or maternal sensitivity was 10. Four of these were RCTs using different adaptations of COS, including COS-I (intensive), COS-HV4 (home visiting) and COS-P (parenting). All four RCT studies measured attachment using the SSP⁵ or adaptations/measures based on the strange situation such as the MacArthur Preschool Strange Situation¹⁶⁹ and the Secure Base-Safe Haven coding procedure.¹³³ Three of these RCT studies found no effect of the intervention on attachment security or disorganisation.^{80,81,91} One RCT found a change in attachment classification in 25% of cases; however, the sample consisted of only 12 dyads and so drawing reliable conclusions may be difficult because of the small sample size.¹³³ One RCT also looked at the effects of COS-I on caregiver sensitivity using the Mini-Maternal Behaviour Q-Sort (Mini-MBQS-V)¹⁷⁰ but found no statistical differences between the intervention and control groups in terms of change in sensitivity.⁸¹ Three non-randomised studies^{134,135,137} investigating the effectiveness of COS all found some improvements in attachment classifications after the intervention, with one showing significant changes from disorganised to organised attachment classifications.¹³⁴ A further three studies^{131,132,136} all found some evidence for COS improving attachment security, although these were case studies and so come with many limitations.

PIP

Eight studies, six RCTs and two non-randomised studies were identified for PIP. Two included Mother–Infant Psychoanalytic treatment, two included Psychodynamic Psychotherapy and another included Psychodynamic Mother–Infant Psychotherapy. Four of the six RCTs measured attachment as an outcome and five also measured parental sensitivity. The attachment studies used the SSP,⁵ AQS¹⁶² and the Story Stem Assessment profile¹⁷¹ as measures of attachment. Two of the RCTs^{88,151} that measured attachment showed that children receiving PIP had substantial increases in secure attachment. The other three studies^{96,138,141} using attachment as an outcome found that infant attachment did not differ between the intervention and control groups. The five RCTs measuring parental sensitivity used the EAS,¹⁵⁶ the Maternal Behaviour Q-set¹⁵⁷ and a 5-point sensitivity scale.¹⁷² Four of these RCTs^{87,139,140,142} found

increased improvements in maternal sensitivity in the PIP groups. A preliminary report of Robert-Tissot¹³⁹ was conducted by Cramer,¹⁷³ providing initial findings of a subsample of 35 cases from the 75 reported in the most up-to-date paper¹³⁹ and so was not included in the final numbers because of the overlap in samples. One study⁹⁶ did not find any treatment-group effects for parental sensitivity. The two non-randomised studies compared PIP with WWW. They showed that those in the PIP group were less likely to move to a secure attachment than those in WWW.¹⁴³ However, at the 6-month follow-up the authors found no difference between the groups in terms of retaining or moving towards a secure attachment.¹⁴⁴ The SSP⁵ was used to measure attachment classifications.

CPP

We identified three RCT studies investigating the effects of CPP on attachment. The measures used were the Attachment Q-Set¹⁵⁸ and the SSP.⁵ All three studies found that secure attachment increased in the intervention group, and one study also confirmed that the intervention group had lower rates of disorganised attachment than the control groups.^{88,151,152}

VIG

Six studies using VIG were identified, two RCT studies, two non-randomised studies and two case studies/case series, all measuring parental sensitivity using scales such as the EAS,¹⁵⁶ CARE Index⁴³ or coding based on Biemans' hierarchy of attuned interactions.¹⁷⁴ Both RCTs examined the effects of VIG on parental sensitivity: one found that VIG proved to be effective in enhancing sensitivity,¹⁴⁶ whereas the other found a large but non-significant difference in sensitivity across the groups.¹⁴⁵ Both non-randomised studies also used parental sensitivity as an outcome and both found increases in sensitivity post intervention compared with the non-treatment groups.^{148,149} One case study found a slight increase in sensitive interactions.¹⁴⁷ The final study was a case series; all cases showed improvements in sensitivity.¹⁵⁰

DDP

DDP was reported as commonly used in the UK to reduce severe attachment problems, such as improving the child's ability to signal attachment needs to adoptive or foster parents (RAD) and to accept care/nurture/help from them (RAD), improving emotional regulation (RAD), reducing indiscriminate behaviours (disinhibited social engagement disorder) and improving the directedness of attachment behaviours towards adoptive and foster carers (disinhibited social engagement disorder). However, we identified only two studies, and both were non-randomised. Using the Randolph Attachment Disorder Questionnaire,³⁹ the authors found that those in the DDP group had significantly decreased RAD-Q scores.¹⁵³ At the follow-up 4 years later, the RAD-Q scores had decreased significantly in the treatment group.¹⁵⁴

WWW

We identified only two studies that evaluated WWW; both were non-randomised and were mentioned previously in the PIP section. Cohen *et al.*¹⁴³ found that infants in the WWW group were significantly more likely to move to a secure attachment pattern than infants in the mother-infant psychotherapy group. At the 6-month follow-up, they found no difference between the groups in terms of retaining or moving towards a secure attachment.¹⁴⁴ Both the original and the follow-up study used the SSP⁵ to measure attachment classifications.

Theraplay

Theraplay was another intervention reported in the survey as being commonly used in the UK. However, we identified only one (non-randomised) study that investigated its effects on attachment and maternal sensitivity. Using the EAS¹⁵⁶ with both parents (mother and father) pre and post intervention, this study showed an increase in parental sensitivity post intervention.¹⁵⁵

ICP

We found no studies that tested the effectiveness of ICP on attachment or parental sensitivity, even though the survey identified that ICP is one of the most commonly used interventions among the top 10.

It is important to bear in mind that there may be some overlap between types of intervention in the review presented. For example, although survey responses suggested that PIP and CPP are separate, in the literature there were large amounts of overlap between the two. There were cases in which an original sample was included in a paper and described as receiving CPP, and then a later follow-up study was published following the same sample that was then described as receiving parent–infant psychotherapy. The differences between these two approaches are evidently not clear-cut. In addition, some interventions were excluded, such as perinatal dyadic psychotherapy, because, although likely to be very similar to parent–infant psychotherapy, they are described as a separate manualised intervention.

There were some early video feedback interventions that were not described as one of the manualised interventions and therefore were excluded. However, these are likely to be early testing of VIPP or VIG, which then went on to develop into either VIG or VIPP.^{33,175–177}

Systematic review discussion

The main findings from the systematic reviews are that attachment-focused parental interventions can significantly decrease disorganised attachment with a small effect size⁶¹ [OR 0.54, 95% CI 0.39 to 0.77, effect size (d) = -0.15 ; see *Figure 5*] and improve rates of secure attachment in children with or at risk of developing attachment difficulties or children with attachment problems [OR 1.85, 95% CI 1.36 to 2.52, effect size (d) = 0.15 ; see *Figure 7*]. This confirms previous systematic review and meta-analysis findings.^{13,46,47,178–180}

The strengths of this work include the fact that we were able to maintain a focus on the highest levels of research evidence (e.g. RCTs). This has meant that several recent high-quality studies have been included in the present review with a low risk of bias, suggesting improvement in methodologies over time. This work also builds on previous reviews in which relatively small numbers of studies were found. By following the same methodology and processes, we were able to combine the results from these reviews, leading to a comprehensive overview of the literature. More research has been, and is being, commissioned in this field.

This specific focus of the review criteria could also cause potential limitations. For example, our criteria excluded any studies that were not focused on parent or caregiver interventions. Interventions that involve a change in caregiver such as adoption,^{181,182} or studies examining the effects of institutionalisation and foster care, such as the Bucharest Early Intervention Project, are not included in this review.^{183,184}

We also excluded research without attachment outcome measures in review 1. We recognise that much good work is being done outside this delineation but we cannot quantify it or understand its relevance to attachment if an attachment measure, or a measure for RAD and/or disinhibited social engagement disorder, is not included.

In review 2, we included measures of parental sensitivity as a proxy measure outcome based on research to gather as much research as possible about commonly used manualised interventions.⁴² This second review was also inclusive of study design, which led to large numbers of included papers with diverse study types and outcome measures. As such, we did not conduct meta-analyses for this review, which could be seen as a potential weakness. However, the inclusive criteria allowed us to meet our aim for this review, by providing a comprehensive overview of the range of studies that

have been carried out for each of the routinely used named interventions. Further work focusing specifically on the effectiveness of each intervention may be a potential avenue of future research.

Although we created a comprehensive search strategy, some identified papers did not include the name of the manualised intervention in either the title or the abstract. A potential limitation is that a fairly large number of papers could not be accessed, especially for this second review. This may be due to the lack of restrictions on the date. As a result, the reviewers conducted extensive reference checking and grey literature reviews to ensure that no relevant papers were missed.

When considering the analysis from review 1, the categories in the exploratory subgroup analyses need to be interpreted with caution as they include a relatively small numbers of studies. We presented the results here to encourage debate about which parameters to examine in future research.

Previous research has shown mixed results regarding the value of video feedback in improving insecure attachment. The review by Bakermans-Kranenburg *et al.*⁴⁶ found that interventions were more effective for child attachment outcomes when they did not use video feedback. The review in 2015¹³ showed that interventions were more effective than a control, whether or not they made use of video feedback. The current review shows no apparent differences in effect depending on whether or not video feedback was used. Video feedback is a commonly used intervention with a focus on parental sensitivity. It allows parents to explore ways to review their infant's behaviours and needs, and reflect on their responses.

Our study showed robust effect sizes where therapy was conducted in the 6–12 months age group. Most of the included studies focused on interventions that were delivered in the early years (0–6 months). There is a significant gap in the research for interventions targeting attachment in children post pre-school. There is a need for research in older age groups to identify what works best for them.

We found that attrition rates were high across studies. This is a general problem in child mental health clinical provision¹⁸⁵ and needs to be given more thought in planning of research, dissemination, cost-effectiveness and sustainability.

The overall finding that several manualised interventions have little or no RCT evidence is concerning, and this is discussed further in the main discussion section alongside the survey findings.

Chapter 6 Discussion

The study

The project was undertaken in response to a call to address the following objectives: to conduct a national survey of what structured treatments are routinely used across UK services to improve infant attachment to their caregiver(s) and reduce severe attachment problems; to carry out a systematic review to assess the evidence base that supports these treatments and other parenting interventions for children with (or at risk of) severe attachment problems aged 0–13 years; and to develop recommendations for future clinical trial research on the effectiveness of those commonly used treatments that have not been properly tested in the past.

Main findings

Our main findings in answer to these key questions are as follows.

Are attachment interventions clinically effective?

In an up-to-date systematic review, interventions for children at risk of severe attachment problems show clinical effectiveness with small to medium effect sizes at statistically significant levels when considered in meta-analyses examining interventions to promote secure attachment or interventions to reduce disorganised attachment (the highest risk group for future psychopathology). Most of these interventions are targeted at promoting sensitive, nurturing parenting among main caregivers. These findings confirm previous systematic review and meta-analysis research in this field.^{13,46,47,180}

What does our survey tell us about clinical practice in the UK?

Our survey of clinical practice highlighted a number of important issues that were reported in *Chapter 3*, which we discuss here where they are relevant to our overall conclusions. We found that there was a wide range of services for attachment across the UK from a range of providers; the broadest range of available provision was in London and the South East. The survey of practice highlighted four main areas of concern:

1. varied perspectives on and understanding of attachment and severe attachment problems among those in therapeutic practice
2. inconsistent recognition and assessments of children for severe attachment problems and parent–child relationship
3. varied assessment of outcome/evaluation of attachment-related interventions
4. variety of interventions used with limited evidence base for those most commonly used.

Variable understanding of attachment and severe attachment problems

It was clear that there were some very high-quality services integrated into care pathways with good training and supervision opportunities and providing evidence-based interventions. However, when viewed overall, there was a wide range of presentations that responding professionals would consider as falling under the heading of attachment difficulties. Based on these professionals' responses, there appeared to be several ways in which the construct of attachment was being used as a less precise term than originally intended, with other issues often conflated. The following misunderstandings regarding attachment difficulties appeared in more than a minority of practitioners. (1) The respondents did not distinguish clearly between aspects that could be regarded as risk factors for, or influences on, attachment difficulties and actual attachment difficulties themselves. (2) Many of the indicators mentioned were describing caregivers' (often mothers') difficulties and past experiences rather than

focusing on difficulties in the *child's* attachment behaviours expressed towards current caregivers. (3) Although many of the difficulties reported with which children presented may be *associated* with attachment difficulties (perhaps as consequences), they were not necessarily attachment difficulties themselves. (4) The concept of trauma was used in very broad ways and often treated as being the same construct as attachment. Practitioners commonly referred to traumas occurring within *past* attachment relationships (i.e. what is often referred to as developmental trauma) and considered their impact on current functioning as reflecting 'attachment difficulties', without necessarily considering whether or not the child's *current* attachment behaviour towards his or her caregivers is problematic. This conflation of cause (in the previous example) or consequence (in the latter) with the construct itself blurs the meaning of attachment in ways that we believe are unhelpful and potentially confusing.¹⁸⁶ These various misunderstandings or 'overstretch' of terms and concepts among practitioners was common. Such misunderstandings would have the potential to impact on client report writing, offers of interventions and decision-making in important areas of a child's life. We take the view that there is a clear need for more rigorous training and sources of reliable information about attachment for practitioners so that their use of findings, assessments and interventions from this field is done in a way that is accessible and clinically useful, but also consistent with the underpinning research. Clear and accurate understanding of attachment theory should be incorporated into the curricula of the professional training of child and adolescent mental health professionals, social workers, midwives and health visitors.

Inconsistent recognition and assessments of children for severe attachment problems and parent-child relationship

As reported in the results section of *Chapter 3*, a number of instruments and procedures were used in assessments by practitioners for addressing attachment problems. There are challenges in the assessment of attachment and attachment problems. Two measures are considered the 'gold-standard' of attachment in infants and toddlers: the SSP and the AQS.¹⁸⁷ The AQS is considered a valid measure alongside the SSP.¹⁸⁸ Although the SSP was designed for infants aged 11–20 months, there are also modifications that can be used for preschool children, although these are less well developed. The AQS can be utilised across a larger age range than the SSP.¹⁸⁸ However, practitioners who took part in this study worked with children across a wide age range, from 0 to 13 years old. A number of other validated instruments have been developed for older children. They include the narrative stem assessments (McArthur; Hodges; Manchester Child Attachment Story Task (MCAST)¹⁸⁹ and the Child Attachment Interview.³⁷ For children who may have attachment disorders, the Disturbances of Attachment Interview can be used.³⁸ There are also several validated assessments of parent-child interactions, in particular caregiver sensitivity. They include the CARE Index⁴³ for infants and toddlers, the NICHD sensitivity assessment and the AMBIANCE, of which a brief version has recently been developed.¹⁹⁰ These instruments were generally not used by the practitioners who responded to our survey. A very small proportion ($n = 8$) of respondents reported using the SSP (although some of these respondents were using only aspects and adaptations), and no respondents reported using the AQS or any of the other instruments noted above. Many services reported using instruments such as the SDQ, which, although helpful for exploring a child's overall mental health functioning and a range of potential consequences related to attachment, does not measure attachment itself. Although the SDQ is easy to use and has very good validity as a screening instrument of child and adolescent mental health, severe attachment difficulties are a far more specific problem than generic mental health problems. It is important to acknowledge that there are serious barriers to the routine use of validated attachment instruments in terms of cost, complexity and time. Many of these assessments require training in administering and coding them, some of which are not easily accessible and are costly in terms of time and money. A number of recently developed tools are undergoing validation research, including the Reactive Attachment Disorder and Disinhibited Social Engagement Disorder Assessment,¹⁹¹ that no practitioners reported using at the time of the survey.

Clinical observations may well be helpful and have the advantage of a degree of ecological validity (when conducted thoroughly). However, the lack of structure and validation means that there is inevitably considerable doubt about what is actually being assessed, and whether or not there are reasonable levels of consistency across practitioners who have different prior assumptions and training.

Given the lack of formal assessments or attachment measures, another potential concern is the finding that interventions are offered without a rigorous formulation and delineation of the problem or diagnostic assessment. Whether the medical model of establishing as accurate an assessment of a patient's problem as possible before offering treatment is the appropriate approach requires further discussion, but certainly practitioners need better support in conducting consistent and valid assessments of attachment in routine practice that inform the best interventions.

Varied assessment of outcome/evaluation of interventions

No single instrument was consistently used in terms of outcome measures. The variation was to some extent related to the particular intervention used.

Practitioners may prefer to use short and simple measures. This is in line with literature that suggests that SDQ, CORE (Clinical Outcomes In Routine Evaluation), MORS, Care Index, ASQ and PRFQ (Parental Reflective Functioning Questionnaire) are brief and acceptable measures.¹⁹²⁻¹⁹⁷ A substantial proportion of the survey sample worked in the NHS, with a significant number working in CAMHS. The majority of CAMHS casework is time limited or brief.¹⁹²

In addition, SDQ, CORE, MORS, ASQ, MIM and PRFQ are self-report measures. This suggests that self-report measures may be preferred by respondents. This finding concurs with the findings of Shemmings' study in 2004, which found that one group of attachment practitioners prefer self-report methods of data collection, in part because of their low cost, convenience and ability to survey large samples.¹⁹⁸ In addition, many services find it helpful to either send out the SDQ to clients and families prior to a first appointment or ask the client and/or family to complete the questionnaires in clinics prior to the first meeting (the questionnaires may also be subsequently given out again after 6 months).¹⁹²

It appears that respondents focused primarily on using outcome measures to address parenting, maternal mental health, child mental health and development and less so on attachment itself. Further work is required to achieve consensus between practitioners to ensure the use of a common set of outcome measures in the field of attachment. Any future research must consider how best to measure the impact of attachment work supporting a particular child and/or caregiver and any adverse effects and can focus on brief, convenient and easy-to-administrator measures that can be used across attachment-focused services. Adequate training is also needed to use attachment tools appropriately.

Variety of interventions used with the most common ones having limited or no evidence base and evidence-based interventions being rarely used

Perhaps the most important finding was that many different interventions are being used by professionals to treat attachment difficulties. These included both the 10 named most commonly used interventions we focused on in our second systematic review and a great many others. The survey results indicate that one of the most commonly named interventions was ICP, of which we identified no good evidence base fitting our PICOS criteria. Although this does not mean that the intervention is not helpful, it does mean that the evidence base on which to make this judgement is limited. It was clear that, in the same way that the term attachment was used in different ways by our survey practitioners, many described child psychotherapy with reference to psychodynamic psychotherapy,¹⁹⁹ but some used the term more generally to include a range of individual psychotherapies with children, such as creative arts and play therapies.²⁰⁰ The finding of limited research may be because psychoanalytic child psychotherapy as a field has traditionally been less likely to be subjected to RCTs for a variety of reasons and there have been calls for more research.^{199,201}

The next two most commonly used interventions were DDP and Theraplay, for which we also found limited studies, two and one, respectively, and no RCTs. There is, however, at least one RCT under way into the clinical effectiveness of DDP. Furthermore, DDP is described in the literature as both a therapy and a practice model. There may therefore be some 'DDP informed' parenting interventions that may not be manualised or that did not meet the inclusion criteria, and, although we are not aware of any RCTs, there may be other research relating to these.²⁰² By contrast, we found a substantial number of studies for VIPP and ABC. These also included the largest number of RCTs, at 15 and 11, respectively. Despite this, VIPP and ABC were at the bottom of our list of the top 10 most commonly used interventions. The low uptake of ABC in the UK in particular is noteworthy, given the robust evidence of its efficacy for improving both caregiving sensitivity and attachment security and reducing disorganised attachment. It would be helpful to investigate the barriers to the implementation of this programme in the UK and to conduct robust trials for key target groups of children at risk of severe attachment problems in the UK context.

There is a clear mismatch between current evidence and practice. This is not to say that the more commonly used interventions are not clinically effective or cost-effective, but that there is limited evidence to support their use in addressing attachment problems or to ensure that they cause no harm. The NICE guidelines recommend that children with or at risk of severe attachment problems should be offered an evidence-based intervention to support caregivers to enhance their sensitive responsiveness. The results of the current survey and systematic review suggest that more work needs to be done to achieve this across the UK.

The findings from this study indicate an urgent need for the commonly used interventions to be assessed for clinical effectiveness and cost-effectiveness.

Strengths

This study has provided an up-to-date snapshot of current practice across the UK while at the same time mapping this against the best current available evidence for the interventions in the field of attachment. It does what few studies do, which is to connect information from real-world practice and the latest research evidence base to inform service providers, commissioners and policy-makers.

Weaknesses

Although we received responses in our survey from 734 services across the four UK nations, we had more responses from England than from other countries in the UK. It is not clear if this represents a greater availability of provision in England or different response rates. This study made no attempt to map practice in other countries, which could have informed the findings by reporting on localities of good practice. Although the survey focused on the UK, the systematic review criteria were broad and inclusive of different study types and studies conducted in other countries. This allowed a wide range of findings to be captured that may be relevant to current practice, given that the field remains at the early stages of building a strong evidence base.

In the systematic reviews, it is possible that many interventions that had good clinical effectiveness were not included because they did not measure attachment outcomes in any way. This was one of our inclusion criteria to allow a degree of precision about the findings related to this field. This will have excluded some potentially helpful interventions. Another weakness is that a large number of papers could not be accessed for review 2. We used library searching services and conducted extensive grey literature searches to ensure that we did not miss relevant papers as far as possible.

Implications for practice

As discussed in detail above, a number of things would help practice. There needs to be improved training for practitioners in the concept of attachment and its relation to the parent child relationship, as well as increased training for delivery of the interventions. Appropriate training is important, especially given the potentially vulnerable populations with whom practitioners may be working.

It would also be helpful if researchers and practitioners collaborated to develop standardised guidelines and training curricula in relation to attachment concepts and interventions to reduce the variability in their use in order to support best practice and consistent care.

Pre-intervention assessment and routine assessment of intervention outcome also require improvements in practice. Outcome measurement in the field of child mental health is well recognised as difficult to achieve in general,²⁰³ but the attachment domain in particular suffers from significant challenges in terms of routine outcome assessment. More research is needed to develop and test valid assessment tools that can be used in routine clinical practice, following the lead of Cooke *et al.* on the AMBIENCE-brief.¹⁹⁰ In addition to research into, and provision of, routine tools for assessing attachment, the widespread adoption of improved assessment practices requires systemic change in practice, an acknowledgement of the importance of these aspects of practice and also the provision of more resources and support. In addition to the use of routine outcome measures, more structured training and resources should be available to ensure that routine clinical observation regarding attachment is undertaken with relative consistency and rigour.

Many stakeholders highlighted that after identifying infants and children at risk or with severe attachment problems there were no clear pathways to treatment, that these pathways were often complex and varied by locality or that they were not aware of them. Many practitioners also feared that the focus had moved away from prevention and that only children with severe problems were being treated in many places. Some work on improved streamlining and clarity around commissioning of care and improved care pathways will be important.

Future research priorities

The main research recommendation emanating from this report is the commissioning of RCTs for the most commonly used interventions (e.g. DDP and Theraplay). These interventions are used very commonly for supporting children at risk of severe attachment problems and lack a robust evidence base. It is, therefore, encouraging that there is currently at least one RCT under way for DDP. It is vital to provide this evidence base for these interventions and robustly test their clinical effectiveness, cost-effectiveness and safety. We would also recommend the commissioning of a pragmatic trial of ABC, which has good evidence from studies in the USA but has not been delivered in the UK setting.

The systematic review highlighted a gap in the evidence base for children aged ≥ 4 years. There is a need for more research to focus on attachment interventions in this older age group to identify what works best for this population.

Some exploration of why practitioners do not follow NICE guidelines would be of interest in terms of knowledge transfer and implementation science and would yield a better understanding of the barriers to and facilitators of achieving high-quality practice that is available and accessible to all in real-world day-to-day practice.

A further key research priority is the development of valid and reliable assessment tools that are readily accessible and can be used by clinicians to rigorously assess attachment. There is also a need for improved clinical and academic consensus on the best outcome measures to use in research to

measure attachment and other outcomes in clinical trials so that we have better evidence in future by which to judge the impact of attachment on outcomes. This requires research investment as most current tools used in research are not suitable for use by practitioners. The development of a core outcomes data set for attachment could benefit clinicians as well as researchers, especially when planning future research, including RCTs.

Conclusions

In summary, there is good evidence that attachment interventions do work for children at risk of or experiencing severe attachment problems. However, there is a need to better integrate research findings with clinical practice in terms of both sharing up-to-date information and informing next steps in improved practice and research. There is also a need to develop improved and clear evidence-based protocols for the assessment and measurement of outcomes.

For any future work to improve clinical practice and research design, it is critical that PPI be incorporated. Our study has shown a gap between research and practice, and bringing in the views and advice of professionals working in the field and members of the public with lived experience can help to reduce this. Researchers studying the basic phenomenon of attachment and developing interventions to promote security of attachment also need to engage more comprehensively with practitioners, so that there is greater cross-talk between science and practice, so that terms, assessments tools and interventions are used more consistently and to allow for the improved provision of relevant training.

Chapter 7 Project management

Ethics approval

The survey was conducted according to the University College London Code of Conduct for Research and was approved by the University College London Research Ethics Committee (REC) prior to collecting the data (project ID 16687/001, approval granted 18 November 2019).

Project registration

The systematic review was registered on PROSPERO (CRD42019137362) at study set-up, and this record was updated in June 2020.

Data handling

Data handling and record-keeping

All data were collected and retained in accordance with the Data Protection Act 2018, General Data Protection Regulation and University College London Standard Operating Procedures.

Data storage and archiving

After study completion, all documentation and study data will be stored securely for 5 years. Anonymised digital data from the survey and systematic review will be retained indefinitely according to the policies of the sponsor, and these can be made available if requested.

Changes to protocol after start of trial

There were no major changes to the protocol after the start of the trial (version 1.1). The protocol was updated before the start of the study to reflect the ethics approval obtained for the survey. The protocol was also updated to reflect staff changes; Dr Catarina Teige took the role of Danielle Varley, who left the research team.

Conflict of interest statement

There are no conflicts of interest to declare.

Acknowledgements

We would like to thank the ERG for their contribution at all stages of this report. The ERG was made up of the following members: Danya Glaser, Sheila Redfern, Kim Golding, Doug Simkiss, Kevin Williams, Helen Minnis, Cheryl Adams, Esther Mugweni, Maureen Giles, Matthew Woolgar, Alison O'Sullivan, Michelle McHale and Michael Brown.

We would also like to thank all co-applicants for their support throughout the research, including Professor Peter Fonagy, Dr Danya Glaser, Dr Matthew Woolgar, Professor Paul Ramchandani, Dr Victoria Allgar, Mrs Alison O'Sullivan, Ms Michelle McHale, Mr Michael Brown, Professor Rachel Churchill, Dr Dean McMillan and Dr Catarina Teige.

We thank all of the practitioners who participated in the survey and those who assisted with survey recruitment. We thank Kath Wright at the University of York, Centre for Reviews and Dissemination, who ran the searches for the systematic reviews.

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ACKNOWLEDGEMENTS

Professor Peter Fonagy (<https://orcid.org/0000-0003-0229-0091>) (Director, Child Psychotherapy) supported the design of the study and contributed to the publication.

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Ethics statement

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Data-sharing statement

Data sharing information can be obtained from the corresponding author.

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Appendix 1 List of other interventions

TABLE 21 List of 'other' interventions identified in the survey

Interventions	Identified in survey, <i>n</i>
Massage therapy	11
Baby massage	8
Infant massage	3
Psychotherapy/talking therapies	69
Art psychotherapy	6
Art therapy	4
CPP	1
Gestalt therapy	1
Interpersonal psychotherapy	2
Psychotherapy	1
Cognitive analytic therapy (CAT)	3
Developmental CAT	1
CBT	2
Talking therapy	2
Trauma-focused CBT	5
Systematic psychotherapy	3
Parent-child therapy	2
Narrative attachment therapy	2
Neurophysiological psychotherapy (NPP)	1
EMDR (eye movement desensitisation and reprocessing)	9
Mentalisation-based therapy	13
Children and Parents DBT Skills	2
Adult psychotherapy	1
Short-term psychoanalytic psychotherapy	1
Therapeutic life story work	7
Mentalisation-based therapy	13
Mentalisation-based therapy (MBT)	7
Mentalisation-based therapy for children (MBT-C)	2
Mentalisation-based therapy parenting group	1
Adaptive mentalisation based therapy (AMBIT)	1
Mentalisation-based art therapy group	1
Mentalisation-based therapy for families	1
Trauma informed/focused therapy	14
Trauma recovery model (ECM)	1

continued

TABLE 21 List of 'other' interventions identified in the survey (continued)

Interventions	Identified in survey, n
Trauma focused CBT	5
Trauma informed approach (Beacon House Polyvagal Theory)	3
Trauma informed schools	1
Mellow Babies/Parenting	3
Neurophysiological psychotherapy	1
Family therapy/interventions	41
Family therapy	7
Systematic family therapy	2
Partners in Parenting Education (PIPE)	5
Mellow Babies/Parenting	4
Mind-Mindedness intervention	1
Incredible Years	7
Dandelion Time Model	6
Narrative Attachment Therapy	2
Collaborative Problem Solving approach	4
Attachment based family therapy	1
Nurturing Families Programme	1
Parenting interventions	21
Non-Violent Resistance (NVR)	5
Foundations for Attachment	2
Incredible Years Parenting Programme	2
Triple P (Positive Parenting Programme)	1
Family First Parenting Groups	1
WFT Parenting Work	1
Reflective Parenting	3
Therapeutic Parenting	6
Play therapy	47
Individual Play Therapy	1
Life Story Play Therapy	1
Non-directive Play Therapy	4
Parent-Child Attachment Play (PCAP)	3
Play Therapy	11
Therapeutic Play	1
Watch me play	3
Group Filial Therapy	2
Filial Therapy	10
Here's Looking at you Baby	1
Letting the future in (NSPCC post abuse programme)	1

TABLE 21 List of 'other' interventions identified in the survey (continued)

Interventions	Identified in survey, n
Ball Throwing/Game Play	1
Child Parent Relationship Model (Filial Model)	3
Child Centred Integrative Approach	1
Play and interaction groups	1
Parent in the playroom	1
Individual play therapy	1
Attending or special play	1
Art therapy	21
Art Psychotherapy	6
Art Therapy	4
Drawing and Talking	5
Using art and play	1
Mandala	1
Puppet/Acting out	1
Ball Throwing/Game Play	1
Dramatherapy	2
Music therapy	9
Music Therapy	8
Watch videos of Music Therapy	1
Sensory interventions	28
Sensory attachment intervention	10
Sensory integration	7
Sensory attachment work	1
Underdeveloped sensory systems	1
Eye movement desensitisation and reprocessing (EMDR)	9
School interventions	17
ARC (The attachment Research Community)	2
Nurtured Heart Approach	1
Nurturing Attachments Course	4
Nurture Groups	1
Neurosequential Model	1
Partners in Parenting Education (PIPE)	3
NESSie (Parent training forums)	1
Trauma Informed Schools	1
Fagus	1
Training Schools in Attachment Aware	1
Collaborative Problem Solving approach	1
continued	

TABLE 21 List of 'other' interventions identified in the survey (*continued*)

Interventions	Identified in survey, <i>n</i>
Approaches	16
Solihull Approach	10
Thrive Approach	6
Remote/online interventions	10
BABY BEATS Advanced Bionics	3
Baby Bonding	1
Gordon Neufeld Approach	1
Gro Brain	2
Hand in Hand Parenting	3

Appendix 2 Tables of included study characteristics for systematic reviews

TABLE 22 Characteristics of studies included in review 1

Study	Participants	Sample risk	Intervention focus	Intervention/duration/intensity/delivery	Control group	Attachment measure	Attachment outcomes
Berlin <i>et al.</i> , 2017 ⁷⁹	<i>n</i> = 94 <i>Mean age</i> Child 16.5 months; mother 20.1 years <i>Ethnicity</i> 68.1% black, 27.7% Hispanic	Parents met one of the six risk factors: maternal age < 16 years, history of childhood maltreatment, mental health symptoms, concerns about use of alcohol or other addictive substances, history of or current concerns about domestic violence and/or low social support	Attachment security and targeting disorganised attachment	The Healthy Families Durham programme Weekly visits for 1 year and then reduced in frequency depending on family needs. Delivered by social work and counselling professionals with a master's degree	Yearly check-up control group not receiving any Healthy Family services	Secure and disorganised; measured post intervention; SSP	There were no significant programme group differences in the likelihood of an infant being classified secure or disorganised
Cassidy <i>et al.</i> , 2017 ⁸⁰	<i>n</i> = 141 <i>Mean age</i> IG: child 50.68 months; mother 28.21 years; CG: child 51.5 months; mother 31.07 years <i>Ethnicity</i> IG: African American (81%); white (11%); other (5%); CG: African American (68%); white (14%); other (11%)	Recruited from Head Start centres in low-socioeconomic status communities	Caregiving sensitivity; insecure and disorganised attachment	Circle of Security: parenting – 90-minute sessions for 10 weeks delivered by four clinicians (three master's level and one doctorate level)	Waitlist control	Secure and disorganised; post intervention only; Preschool Attachment Classification System from modified SSP	There were no main effects of intervention on continuous attachment outcomes (i.e. security or avoidance) Rates of disorganised attachment were not found to differ between the treatment and control

Study	Participants	Sample risk	Intervention focus	Intervention/duration/intensity/delivery	Control group	Attachment measure	Attachment outcomes
O'Higgins, 2007 ⁵⁶	n = 62 <i>Child median age</i> IG: 9 weeks; CG: 10 weeks <i>Mother age range</i> IG: 17–40+ years; CG: 20–40+ years <i>Ethnicity</i> 77.08% white, 12.5% black, 5.21% Asian, 5.21% mixed/other/unstated	Postnatally depressed mothers	Learning about their infant and their cues and signals; maternal sensitivity	Baby massage 1-hour classes run at a hospital by trained instructors from the International Association of Infant Massage. Social discussion, instruction and practical work. Aim to attend six sessions, with telephone contact weekly from the research team to keep track of progress	Support group sessions Hourly sessions run by an experienced member of the research team at an outpatient department. Groups of up to eight; discuss and share experiences. Aim to attend six sessions, with telephone contact weekly from the research team to keep track of progress	Secure and disorganised; post intervention; SSP	Attachment status did not vary by intervention; no significant differences found between groups, indicating that the rates of secure, avoidant, resistant and disorganised attachment were equivalent for each group
Ramsauer <i>et al.</i> , 2019 ⁸¹	n = 72 <i>Mean age</i> IG: child 6.03 months; mother 32.79 years; CG: child 6.33 months; mother 31.63 years <i>Ethnicity</i> NR	Mothers with DSM-IV diagnosis of depression	Maternal sensitivity	Circle of Security - intensive 20 group sessions, once per week for 90 minutes. Six mothers in the group, facilitated by two trained COS therapists	Treatment as usual Case management service, occasional dyadic mother–infant psychotherapy, usually approximately 50 minutes	Secure and disorganised; post intervention; SSP	No significant overall treatment group differences in rates of infant attachment security and disorganisation were found at follow-up

continued

TABLE 22 Characteristics of studies included in review 1 (continued)

Study	Participants	Sample risk	Intervention focus	Intervention/duration/intensity/delivery	Control group	Attachment measure	Attachment outcomes
Slade <i>et al.</i> , 2020 ⁹²	<p><i>n</i> = 156</p> <p><i>Mean age</i></p> <p>Child: prenatal baseline measures, intervention delivered through first 2 years</p> <p>Mother:</p> <p>IG: 20.1 years; CG: 20.0 years</p> <p><i>Ethnicity</i></p> <p>IG: 3.9% white/non-Hispanic, 75.3% Hispanic/Latino, 15.6% African American, 5.2% other</p> <p>CG: 5.1% white/non-Hispanic, 60.8% Hispanic/Latino, 31.6% African American, 2.5% other</p>	Young first-time mothers living in underserved, poor, urban communities	Maternal reflective functioning and affective communication between mother and child	<p>Minding the Baby intervention</p> <p>Intensive weekly home visiting service (developmental guidance, supporting attachment, signposting, and support with basic supplies) from start of third trimester until child is 12 months, and then biweekly home visits until child is 24 months. Continued to receive routine care from community health centre. Minding the Baby practitioners completed training and regular supervision</p>	<p>Care as usual</p> <p>Routine prenatal and postnatal well-woman health visits and well-baby health-care visits. Families were sent quarterly information from Healthy Steps</p>	Secure and disorganised; post intervention; SSP	Infants in the Minding the Baby group were significantly more likely to be securely attached and significantly less likely to be disorganised than infants in the control group

Study	Participants	Sample risk	Intervention focus	Intervention/duration/intensity/delivery	Control group	Attachment measure	Attachment outcomes
Williams and Turner, 2020 ⁸³	n = 33 <i>Mean age</i> Child 2–4 weeks; mother 19.1 years <i>Ethnicity</i> White 45.3%, Hispanic 44%, black 2.7%, American Indian 2.7%, other 5.3%	Adolescent mothers	Skin-to-skin contact and the link to improving maternal sensitivity and attachment	Baby-wearing – high-physical-contact intervention A certified educator in baby-wearing instructed mothers how to use a baby-wearing carrier and encouraged them to use for at least 1 hour per day	Reading – low physical contact intervention Mothers were given four high-contrast baby books and encouraged to read to their babies	Secure and disorganised; post intervention only; Global Rating Scales used to classify attachment type from the Still Face Paradigm at 7 months	Infants in the intervention group were more likely to be secure and less likely to be disorganised than those in the control condition at 7 months
Suchman <i>et al.</i> , 2017 ⁵⁷	n = 87 <i>Mean age</i> Child 27.62 months; mother 29.68 years <i>Ethnicity</i> 77% Caucasian, 13.8% African American, 3.4% Hispanic/Latina, 5.7% mixed race	Mothers enrolled in addiction treatment for substance abuse	Parental mentalisation and reflective functioning to develop maternal caregiving sensitivity	Mothering from the Inside Out; manualised 12 weekly 1-hour sessions of individual therapy, delivered by therapist	Parent education 12-session individual psychoeducational comparison intervention in which developmental guidance and parenting strategies were provided by an individual counsellor	Secure only; SSP at baseline and post intervention; MacArthur Preschool SSP	There were no significant group differences in the percentage of children whose attachment status either remained secure or became more secure at post treatment
CG, control group; IG, intervention group; NR, not reported.							

TABLE 23 Characteristics of studies included in review 2

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Alsancak-Akbulut <i>et al.</i> , 2020 ¹⁰³	<i>n</i> = 68 Age Child's mean age 20.04 months (6.62 months); mother's mean age 29.29 years (5.20 years) <i>Ethnicity</i> Not specified but mainly Turkish	Low-SES area, disadvantaged mothers	Maternal sensitivity	VIPP-SD	RCT	Dummy intervention – received four telephone calls	N/A	N/A	Ainsworth Sensitivity Scale	VIPP-SD proved effective in promoting maternal sensitivity among Turkish mothers, with a moderate effect size for intervention effect
Barone and Lionetti, 2019 ¹⁰⁴	<i>n</i> = 83 Age Child's mean age 43.3 months (15.9 months); mother's mean age 42.6 years (3.9 years) <i>Ethnicity</i> Caucasian	Adoptive mothers, internationally adopted children	Caregiver sensitivity	VIPP-SD, VIPP-FC/A	RCT	Dummy intervention – received six telephone calls	N/A	N/A	Emotional Availability Scale	There was a higher increase in caregiver sensitivity for those in the intervention group than for those in the control group
Casonato <i>et al.</i> , 2017 ¹⁰⁵	<i>n</i> = 12 Age Child's mean age 19.58 months (9.51 months); mother's mean age 26.83 years (9.52 years) <i>Ethnicity</i> Not specified	Placed in parental residential care	Maternal sensitivity	VIPP-SD	RCT	Received six telephone calls	N/A	N/A	Maternal Behaviour Q-set	No significant improvements in maternal sensitivity

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Cassibba <i>et al.</i> , 2015 ¹⁰⁶	n = 32 Age Child age 7 months; mother mean age 33.03 years (4.37 years) Ethnicity Italian sample	Categorised according to mother's attachment classification	Maternal sensitivity	VIPP-R	Non-randomised study	Two dummy visits	SSP	Children of insecure mothers were assessed as more secure than the comparison children of insecure mothers Children of secure mothers who received the intervention did not show significant changes of attachment security	Emotional Availability Scale	VIPP-R appeared to enhance the sensitivity of only insecure mothers compared with insecure mothers without intervention At the same time, the VIPP-R was ineffective in secure mothers, as the sensitivity of secure mothers after intervention was not significantly higher than that of secure mothers in the comparison group
Iles <i>et al.</i> , 2017 ¹⁰⁷	n = 5 Age Child mean age 16 months (3.4 months); mother mean age 35 years (4.3 years); father mean age 36 years Ethnicity 100% white	Families who reported to be struggling with their infant's behaviour	Parental sensitivity	VIPP-Co	Non-randomised study	No control group	N/A	N/A	Adapted Global Rating Scale	Preliminary outcome data indicated positive changes in parental sensitivity
Kalinauskiene <i>et al.</i> , 2009 ¹⁰⁸	n = 54 Age Child's mean age: 6 months 12 days (0.07) Mother's mean age: 26.4 years (2.94) Ethnicity 77.8% Lithuanian	Considered 'insensitive mothers' scoring below mid-point of 5 on Ainsworth's rating scale	Maternal sensitivity	VIPP	RCT	Dummy intervention - contacted by telephone monthly for 5 months	AQS	Attachment security was not enhanced in the VIPP group compared with controls	Ainsworth Security Scale	Intervention mothers improved sensitive responsiveness ($d = 0.78$)

continued

TABLE 23 Characteristics of studies included in review 2 (continued)

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Klein Velderman <i>et al.</i> , 2006 ¹⁰²	n = 81	Mothers with insecure attachment	Maternal sensitivity; attachment	VIPP	RCT	No intervention	SSP at T2	The number of secure infants in both intervention groups was not significantly higher than in the control group	Ainsworth Sensitivity Scale	After the intervention, intervention mothers were more sensitive than control mothers
	Age			VIPP-R						
	Child mean age 6.83 months (1.03 months); mother mean age 27.8 years (3.63 years)									
	Ethnicity									
Not specified										
Klein Velderman <i>et al.</i> , 2006 ¹⁰⁹	n = 77	Mothers with insecure attachment	Maternal sensitivity; attachment	VIPP	RCT	No intervention	AQS at T3	No long-term intervention effects on children's AQS security scores were found either	Ainsworth Sensitivity Scale	At T3, no significant long-term intervention effects were found on EAS sensitivity among all three groups
	Age			VIPP-R						
	Child mean age 6.83 (1.03); mother mean age 27.83 years (3.63 years)									
	Ethnicity									
Not specified										
Follow-up of Klein Velderman <i>et al.</i> , 2006 ¹⁰²	Child mean age 6.83 (1.03); mother mean age 27.83 years (3.63 years)									
	Ethnicity									
	Not specified									
Negrão <i>et al.</i> , 2014 ¹¹⁰	n = 43	Poor families of toddlers screened for professional's concerns about the child's caregiving environment	Maternal sensitivity; attachment	VIPP-SD	RCT	Six telephone calls at the same time intervals as the VIPP-SD sessions	N/A	N/A	Emotional Availability Scales	Intervention group showed higher post-test sensitivity scores; however, effects failed to reach significance
	Age									
	Child mean age 29.07 months (10.49 months); mother mean age 29.98 years (6.19 years)									
	Ethnicity									
Not specified										

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Platje <i>et al.</i> , 2008 ¹¹¹	<p><i>n</i> = 86</p> <p><i>Child mean age</i></p> <p>Intervention 3.36 years; control 3.22 years</p> <p><i>Parent mean age</i></p> <p>Intervention 34.50 years; control 35.65 years</p> <p><i>Ethnicity (Dutch)</i></p> <p>Intervention group 35 (91%); control group 31 (86%)</p>	Visual or visual-and-intellectual disability	Parental sensitivity	VIPP-V	RCT	Care as usual	N/A	N/A	The boxes procedure coded using the National Institute of Child Health and Human Development Scales	The parents receiving VIPP-V did not show increased parental sensitivity
Poslawsky <i>et al.</i> , 2015 ¹¹²	<p><i>n</i> = 78</p> <p><i>Child mean age</i></p> <p>Intervention group 42.16 months; control group 43.80 months</p> <p><i>Caregiver mean age</i></p> <p>Intervention group 36.8 years old; control group 36.42 years old</p> <p><i>Ethnicity</i></p> <p>Not reported</p>	Children with autism spectrum disorder	Parental sensitivity	VIPP-AUTI	RCT	Care as usual	N/A	N/A	Emotional Availability Scale	No significant effects for parental sensitivity

continued

TABLE 23 Characteristics of studies included in review 2 (continued)

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Shoemaker <i>et al.</i> , 2020 ¹¹³	<i>n</i> = 60 <i>Child mean age</i> Intervention group 3.63 years old; control group 3.67 years old <i>Foster parent mean age</i> Intervention group 46.04 years old; control group 44.81 years old <i>Ethnicity</i> Dutch	Foster children	Parental Sensitivity	VIPP-FC	RCT	Dummy intervention – six telephone calls	N/A	N/A	Adapted Ainsworth Sensitivity Scales	No evidence that VIPP-FC was more effective in improving foster parents' sensitive parenting behaviour than control group
Van Zeijl <i>et al.</i> , 2006 ¹¹⁴	<i>n</i> = 237 <i>Mother mean age</i> Intervention group 33 years; control group, 44.81 years old <i>Child age range</i> : 1–3 years old <i>Ethnicity</i> Dutch	Children with relatively high levels of behaviour problems and parents facing relatively high levels of stress	Maternal sensitivity	VIPP-SD	RCT	Control group	N/A	N/A	7-point scales drawn from Egeland <i>et al.</i> ¹⁵⁹	VIPP-SD was effective in promoting sensitive discipline interactions in the intervention group as compared with the control group
Whitehouse <i>et al.</i> , 2019 ¹¹⁵	<i>n</i> = 98 <i>Child mean age</i> Intervention group 12.40 months; control group 12.38 months <i>Parent/caregiver age</i> : not specified <i>Ethnicity</i> Australian sample	Foster children	Parental sensitivity	iBASIS-VIPP	RCT	Community treatment as usual	N/A	N/A	Manchester Assessment of Caregiver–Infant interaction	No significant differences on secondary outcomes measuring caregiver sensitive responding

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Yagmur <i>et al.</i> , 2014 ¹¹⁶	n = 76 Age Child's mean age: 30.83 months Mother's mean age: 29.96 years <i>Ethnicity</i> 100% Turkish	Turkish immigrant families with toddlers at risk for the development of externalising problems	Maternal sensitivity	VIPP-TM	RCT	Dummy intervention	N/A	N/A	Emotional Availability Scale	The VIPP-TM was effective in increasing maternal sensitivity
Green <i>et al.</i> , 2015 ¹¹⁷	n = 54 <i>Child mean age</i> Control group 276.58 days (24.25 days); intervention group 267.14 days (20.93 days)	Infants at risk of autism	Parental sensitivity	iBASIS-VIPP	RCT	No treatment group	N/A	N/A	Manchester Assessment of Caregiver–Infant interaction	The intervention did not show any effect on caregiver sensitive-responding
Oliveira <i>et al.</i> (University College London; 8 December 2020, personal communication)	n = 30 Age Child mean age: 47.37 months Carer mean age: 49.87 years <i>Ethnicity</i> Carer ethnicity: 22 (73%) White British Child ethnicity 14 (47%) White British 2 (7%) Caribbean 3 (10%) White/Caribbean mixed 11 (36%) other ethnicities 9 (29%)	Foster children	Parental sensitivity	VIPP-FC	RCT	Care as usual	SSP	Results are not yet published as the SSP is still being coded	N/A	N/A

continued

TABLE 23 Characteristics of studies included in review 2 (continued)

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Berlin <i>et al.</i> , 2014 ¹¹⁸	n = 21 Age Child's mean age: 9.55 months (6.8) Mother's mean age: 33 years (7) Ethnicity: 85% white	Mothers and their infant living in residential substance abuse treatment	Maternal sensitivity	ABC	RCT	Light, 10-session 'intervention' book of the week – brief, home-based appointments	N/A	N/A	Maternal behaviour Q-sort	There was an effect of the intervention on observed sensitive parenting behaviour favouring the ABC group
Berlin <i>et al.</i> , 2018 ¹¹⁹	n = 202 Age Child's mean age: 13 months (4 months) Mother's mean age: 31 years (6.5 years) Ethnicity: 87% Latino, 8% black, 5% other	Early Head Start eligible, low SES	Maternal sensitivity	ABC	RCT	Early Head Start, plus book of the week, 10 developmentally appropriate books sent weekly, and three telephone calls	N/A	N/A	Coded observations, overall sensitivity score	Following the intervention, ABC mothers were rated as significantly more sensitive. The effect on overall sensitivity was medium ($d = 0.47$)
Yarger <i>et al.</i> , 2016 ¹²⁰	n = 24 Mother mean age IG: 24.70 years; CG 28.2 years Child mean age IG 13.18 months; CG 15.14 months Ethnicity IG: African American 46.2%, European American 38.5, biracial 7.7%, other 7.7% CG: African American 63.6%, European American 36.4%	Families had an unsubstantiated report of neglect in the state of Delaware	Maternal sensitivity	ABC	RCT	DEF	N/A	N/A	The ORCE Sensitivity scale	Mothers who participated in ABC were significantly more sensitive than were mothers who participated in DEF, and mothers in ABC showed a steeper rate of change in sensitivity than mothers in DEF

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Yarger <i>et al.</i> , 2019 ¹²¹	<p><i>n</i> = 120 dyads</p> <p>Age</p> <p>Parent mean age: 39.7 years</p> <p>Children mean age: 21.9 months</p> <p><i>Ethnicity</i></p> <p>White/non-Hispanic: 95.0%</p>	Adopted children	Parental sensitivity	ABC	RCT	DEF	N/A	N/A	Adapted ORCE scales	Parents who participated in ABC were significantly more sensitive than parents who participated in DEF. Furthermore, parents in ABC showed a steeper rate of change in sensitivity than parents in DEF
Lind <i>et al.</i> , 2020 ¹²²	<p><i>n</i> = 101</p> <p><i>Child age at intervention</i></p> <p>IG: 9.3 months (5.9 months); CG: 9.4 months (6.3 months)</p> <p><i>Mother age at intervention</i></p> <p>IG: 27.4 years (7.4 years); CG: 25.1 years (7.3 years)</p> <p><i>Ethnicity</i></p> <p>IG: 11.1% white, 68.9% African American, 11.1% Hispanic, 8.9% biracial; CG: 7.1% white, 71.4% African American, 16.1% Hispanic, 5.4% biracial</p>	Child protective services involvement	Maternal sensitivity	ABC	RCT	DEF	N/A	N/A	A global 5-point scale of sensitivity adapted from ORCE scales	Parents who received ABC demonstrated significantly higher sensitivity than parents who received the control intervention at the 1-month post-intervention assessment (<i>d</i> = 0.47). Parents who received the ABC intervention engaged in sensitive behaviour for more of the interaction than parents who received the control intervention, although the difference was not statistically significant (<i>d</i> = 0.40). The correlation between parent sensitivity at the 1-month post-

continued

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Zajac <i>et al.</i> , 2020 ¹²⁴	n = 129	Families were initially referred for the study by child welfare agencies as part of a foster care diversion programme	Perceived attachment security	ABC	RCT	DEF	Kerns Security Scale	Children who received the ABC intervention had higher perceived attachment security ratings than children who received the DEF intervention	N/A	N/A
9-year follow-up of Bernard <i>et al.</i> , 2012 ¹²²	Age									
	Child age at follow-up: 9.46 years Mother age at follow-up: IG: 38.71 years; CG: 37.14 years									
Dozier <i>et al.</i> , 2009 ¹²⁵	n = 46	Foster children	Attachment security	ABC	RCT	DEF	Parent attachment diaries	Children whose parents had received ABC showed significantly less avoidance than children whose parents had received the educational intervention	N/A	N/A
	Age									
	Child mean age: 18.9 months									
	Parent age: not reported									
	<i>Ethnicity</i>									
	63% African American, with 26% non-Hispanic white, 3% Hispanic, and 7% biracial									
Raby <i>et al.</i> , 2019 ¹²⁶	n = 88	Parents with foster children	Maternal sensitivity	ABC-T	RCT	DEF	N/A	N/A	ORCE Scales	Foster parents who received ABC-T interacted with their children in a more sensitive manner
	Age									
	Child age range: between 24 and 36 months									
	Parent age: not reported									
	<i>Ethnicity</i>									
	IG: 50% Caucasian, 43.2% African American; CG: 33.3% Caucasian, 50% African American									

continued

TABLE 23 Characteristics of studies included in review 2 (continued)

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Caron <i>et al.</i> , 2016 ¹²⁷	n = 78 dyads Age Child mean age: 12.2 months (7.4 months) Parent mean age: 28.6 years (6.8 years) <i>Ethnicity</i> 50% mixed racial background, 13% white/non-Hispanic, 5% white/Hispanic, 1% African American, 9% Asian American, 10% native Hawaiian, 6% other Pacific Islander	Referred to needing services (e.g. CPS involvement, observed difficulties)	Parental sensitivity	ABC	Non-randomised study	No control group	N/A	N/A	Adapted ORCE Scales	Improvements were observed in parent-child interaction
Roben <i>et al.</i> , 2017 ¹²⁸	n = 108 Age Child age: 6 months Parent age: not reported <i>Ethnicity</i> Not reported	Referred to needing services (e.g. CPS involvement, observed difficulties)	Parental sensitivity	ABC	Non-randomised study	No control group	N/A	N/A	Adapted ORCE scales	Parents showed higher levels of sensitivity at post intervention than at pre intervention
Perrone <i>et al.</i> , 2020 ¹²⁹	n = 200 Age Child mean age: 11.82 months Parent mean age: 29.85 years <i>Ethnicity</i> 64.5% African American, 15% Hispanic or Latin	Recruited through community-based organisations (e.g. family-based homeless shelters, community fairs, health service providers)	Parental sensitivity	ABC	RCT	Waitlist	N/A	N/A	Adapted ORCE scale	On average parents who completed ABC displayed greater increases in sensitivity

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Puckering <i>et al.</i> , 2011 ¹³⁰	n = 1 Participant characteristics: not reported	Mother with history of moderate depression and referred to local infant mental health services by their general practitioner	Attachment	ABC	Case study	No control group	SSP	ABC changed the attachment between mother and infant	N/A	N/A
Andrews and Coyne, 2018 ¹³¹	n = 1 Age Child: 5 years old Mother: 'early 40s' Ethnicity Not reported	Child referred by a psychologist	Attachment	COS-I	Case study	No control group	SSP	The relationship was moving towards security, although it was not formally coded	N/A	N/A
Cassidy <i>et al.</i> , 2017 ⁸⁰	n = 141 mothers Child mean age IG: 50.68 months (5.94 months); CG: 51.15 months (6.01 months) Mother mean age IG: 28.21 years (5.39 years); CG: 31.07 years (7.14 years) Ethnicity IG: 81% African American, 11% white, 5% other; CG: 68% African American, 14% white, 11% other	Attending Head Start/Early Head Start	Parental sensitivity	COS-P	RCT	Waitlist control	Preschool Attachment Classification System, from modified SSP	There were no main effects of intervention on continuous outcomes. Rate of disorganised attachment were not found to differ between treatment and control groups	N/A	N/A

continued

TABLE 23 Characteristics of studies included in review 2 (continued)

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Fardoulys and Coyne, 2016 ¹³²	n = 2 Age Child: 3.5 years Mother: 33 years Ethnicity 1 Australian-Japanese household, 1 Australian	Children with ASD diagnosis	Attachment	COS	Case series	No control group	SSP coded with MacArthur Preschool Attachment Coding System	Results found one dyad shifted from avoidant to secure while the other dyad remained secure over time	N/A	N/A
Hanlon-Dearman, 2017 ¹³³	n = 12 Age Child mean age: 4.1 years Parent/caregiver age: not reported Ethnicity Not reported	Children with fetal alcohol spectrum disorder and affected by prenatal alcohol exposure; foster children	Attachment	COS	RCT	Waitlist or treatment as usual	Secure Base-Safe Haven coding procedure based on SSP	In 25% of the cases, COS treatment resulted in a shift to secure attachment at post-intervention and follow-up	N/A	N/A
Hoffman <i>et al.</i> , 2004 ¹³⁴	n = 65 dyads Age Child mean age: 32 months (12.6 months) Caregiver mean age: 23.8 years (6.8 years) Ethnicity 86% white/Caucasian	Significantly high risk - violent neighbourhood, caregivers experienced childhood trauma	Attachment	COS	Non-randomised study	No control group	MacArthur Preschool Strange Situation for children	There were significant within-subject changes from disorganised to organised attachment classifications, with a majority changing to the secure classification	N/A	N/A

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Huber <i>et al.</i> , 2015 ¹³⁵	n = 83 Age Child age: 47.80 months (17.48 months) Caregiver age: not reported <i>Ethnicity</i> 4% Aboriginal or Torres Strait Islander, 24% other culturally or linguistically diverse backgrounds	Referred to a community-based infant and early childhood mental health service	Attachment	COS	Non-randomised study	No control group	SSP	Level of child attachment security increased after the intervention, and level of attachment disorganisation decreased for those with high baseline levels but not a significant change	N/A	N/A
Page and Koren-Karie, 2013 ¹³⁶	n = 1 Age Parent: 21 years old Child: 3 years old <i>Ethnicity</i> Not reported	Characteristics consistent with attachment disorganisation	Attachment	COS	Case study	No control group	SSP	Attachment changed from disorganised to secure	N/A	N/A
Ramsauer <i>et al.</i> , 2020 ⁹¹	n = 72 <i>Child mean age</i> IG: 6.03 months; CG: 6.33 months <i>Parent mean age</i> IG: 32.79 years; CG: 31.63 years <i>Ethnicity</i> Not reported	Mothers with post-partum depression	Attachment and maternal sensitivity	COS-I	RCT	Treatment as usual	SSP	No significant overall treatment group differences in rates of infant attachment security and disorganisation were found at follow-up	Mini-Maternal Behaviour Q-Sort for Video Coding	No statistical differences of treatment effects between treatment as usual and COS-I intervention groups on changes in maternal sensitivity across time

continued

TABLE 23 Characteristics of studies included in review 2 (continued)

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Cassidy <i>et al.</i> , 2011 ⁹¹	n = 220 Age Infant age: 1 month Ethnicity 43.2% African American/black, 20.5% white, 18.6% more than one race, 14.1% Hispanic	Irritable infants and economically stressed mothers	Attachment	COS- HV4	RCT	Control group – three 1-hour psychoeducational sessions	Strange situation assessed when infants were 12 months old (post intervention)	There was no main effect of treatment	N/A	N/A
Page and Caine, 2010 ¹³⁷	n = 8 Age Child mean age: 48 months Mother mean age: 25 Ethnicity 7 Caucasian, 1 Hispanic	Referred for parenting services by a local child welfare agency	Attachment	COS	Non-randomised study	No control group	Preschool SSP	Half of participants showed some improvements in children's attachment security	N/A	N/A
Fonagy <i>et al.</i> , 2016 ⁹⁶	n = 76 Age Child: 3.85 months Parent: 31.1 years Ethnicity 63% white	Parental mental health problems and social adversity	Attachment and parental sensitivity	PIP	RCT	Treatment as usual	SSP	Infant attachment classifications did not differ between the groups	Emotional Availability Scale	There was no demonstrated treatment group effects for parental sensitivity

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Cicchetti <i>et al.</i> , 2006 ⁸⁷	n = 137 Age Child mean age: 13.3 months old Mother mean age: 26.87 years old Ethnicity Not reported	All infants known to have been maltreated and or who were living in maltreating families with their biological mothers	Attachment and maternal sensitivity	Infant–parent psychotherapy (IPP)	RCT	Psychoeducational parenting intervention and community standard controls and low-income normative comparison	SSP	Children in the IPP and psychoeducational parenting intervention groups demonstrated substantial increases in secure attachment, whereas increases in secure attachment were not found for the community standard and normative comparison groups	Maternal behaviour Q-set	Processes that were expected to change as a result of IPP included improvements in maternal representations of her own mother and increases in maternal sensitivity
Lieberman <i>et al.</i> , 1991 ¹³⁸	n = 100 Age Child mean age: 12 months Mother mean age: 25.08 years	Low SES; anxiously attached dyads	Attachment security	Infant–parent psychotherapy	RCT	Secure attachment control group Anxious attachment control group	AQS at 24 months	There were no group differences on the AQS post intervention	N/A	N/A
Robert-Tissot <i>et al.</i> , 1996 ¹³⁹	n = 75 Age Child mean age: 15.6 months Father mean age: 33.9 years Mother mean age: 31.1 years	Children referred to Child Guidance Clinic for sleep, feeding, and behavioural disorders	Maternal sensitivity	Psychodynamic Mother–Infant Psychotherapy	RCT	No control group	N/A	N/A	Ainsworth Sensitivity Scale	Maternal sensitivity to the infant's signals increased after treatment

continued

TABLE 23 Characteristics of studies included in review 2 (continued)

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Salomonsson and Sandell, 2011 ¹⁴⁰	n = 75 <i>Child mean age</i> IG: 4.4 months; CG: 5.9 months <i>Mother mean age</i> IG: 34.0 years; CG: 32.3 years <i>Father mean age</i> IG: 35.1 years; CG: 34.0 years	Previously reported diagnoses of eating disorders, depression, or anxiety disorders	Maternal sensitivity	MIP	RCT	Routine care at child health centres	N/A	N/A	EAS	MIP treatment improved maternal sensitivity
Salomonsson <i>et al.</i> , 2015 ^{141,142} Follow-up of Salomonsson and Sandell, 2011 ¹⁴⁰	n = 66	Previously reported diagnoses of eating disorders, depression or anxiety disorders	Attachment representations	MIP	RCT	Routine care at child health centres	Story Stem Assessment Profile	Between-group differences were non-significant	Emotional Availability Scale	There was no difference in sensitivity scores between groups at the 4.5-year follow-up
Cohen <i>et al.</i> , 1999 ¹⁴³	n = 67 WWW Child mean age 21.5 months (6.5 months) Mother mean age: 32.2 years (5.6 years) PPT Child mean age: 19.2 months (6.1 months) Mother mean age: 32.4 years (4.1 years) <i>Ethnicity</i> Not reported	Referred to child mental health clinic	Maternal sensitivity and attachment	WWW, PPT	Non-randomised study	PPT (care as usual)	SSP	Infants in the WWW group were significantly more likely than infants in the PPT group to move towards either a secure or organised attachment relationship	N/A	N/A

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Cohen <i>et al.</i> , 2002 ¹⁴⁴	<i>n</i> = 58 <i>WWW</i>	Referred to child mental health clinic	Maternal sensitivity and attachment	WWW, PPT	Non-randomised study	PPT (care as usual)	SSP	In the WWW group, eight infants showed either retained or moved towards a secure attachment pattern (32%), and in the PPT group nine infants (36%) did so. There was no difference between groups	N/A	N/A
Follow-up of Cohen <i>et al.</i> , 1999 ¹⁴³	Child mean age: 21.7 months (6.7 months) Mother mean age: 32 years (4.8 years) <i>PPT</i> Child mean age: 19.4 months (6.2 months) Mother mean age: 32.4 years (3.9 years) <i>Ethnicity</i> Not reported									
Barlow <i>et al.</i> , 2016 ¹⁴⁵	<i>n</i> = 31 Age Child mean age: ≤ 32 weeks' gestation Mother mean age: 32 years (6.1 years) <i>Ethnicity</i> 67% white British, 33% mixed ethnic origin	Parents of preterm infants	Maternal sensitivity	VIG	RCT	Care as usual	N/A	N/A	CARE index	There was a large (<i>d</i> = 0.86) but non-significant difference in sensitivity between the two groups, with intervention parents scoring above the cut-off point used to indicate the need for intervention, and parents in the control group scoring below the cut-off point

continued

TABLE 23 Characteristics of studies included in review 2 (continued)

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Hoffenkamp <i>et al.</i> , 2015 ¹⁴⁶	n = 150 Age Child age: birth Mother mean age: IG: 31.1 years (4.9 years); CG: 30.8 years (5.4 years) Father mean age: IG: 34.1 years (5.4 years); CG: 33.6 years (5.5 years) <i>Ethnicity</i> Mainly Dutch	Infants born preterm	Maternal sensitivity	VIG	RCT	Treatment as usual	N/A	N/A	15-minute recordings observed and coded	VIG proved to be effective in enhancing sensitive behaviour
James <i>et al.</i> , 2013 ¹⁴⁷	n = 3 Age Child age: A: 1, 11 years, B: 3, 10 years, C: 9 months Parent age: not reported <i>Ethnicity</i> Not reported	Children congenitally profoundly deaf and pre-lingual, born to hearing mothers	Parental sensitivity	VIG	Case series	No control group	N/A	N/A	Emotional Availability Scale	Results for each case showed that there were some improvements in EAS sensitivity after the intervention and were maintained at follow-up
Kennedy <i>et al.</i> , 2010 ¹⁴⁸	n = 23 Age Child: NR Parent: NR <i>Ethnicity</i> Not reported	Families placed in a residential treatment centre with their children for 3 months	Parental sensitivity	VIG	Non-randomised study	Treatment as usual	N/A	N/A	CARE - index	The mean post-CARE-Index score went down slightly for the control group whereas it went up for the VIG intervention group. This result shows a significant effect size ($d = 0.5$)

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Lam-Cassetar <i>et al.</i> , 2015 ¹⁴⁹	<i>n</i> = 14 Age Child mean age: 2 years 8 months Mother age: not reported <i>Ethnicity</i> 13 British, 1 Latvian	Deaf/hard of hearing children	Maternal sensitivity	VIG	Non-randomised study	No control group	N/A	N/A	Emotional Availability Scale	There was a significant difference in scores of parental sensitivity according to the assessment visit with an increase from pre to post intervention
Pethica and Bigham, 2018 ¹⁵⁰	<i>n</i> = 1 Participant characteristics: not reported	Mother has intellectual disability Children were on the child protection register for emotional abuse	Maternal sensitivity	VIG	Case study	No control group	N/A	N/A	Coding based on Biemans' hierarchy of attuned interactions (1990)	There was an increase in sensitive interactions
Cicchetti <i>et al.</i> , 1999 ¹⁵¹	<i>n</i> = 108 Age Child mean age: 20.40 months Mother mean age: 31.70 years <i>Ethnicity</i> Not reported	Mothers with major depressive disorder	Attachment	Toddler-parent psychotherapy	RCT	Non-depressed mothers (control group)	Attachment Q-Set	Children in the intervention group reached rates of secure attachment that were comparable with those in the non-depressed control group	N/A	N/A

continued

TABLE 23 Characteristics of studies included in review 2 (continued)

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Toth <i>et al.</i> , 2006 ⁸⁸	Depressed mothers: n = 130 Non-depressed mothers: n = 68 Age Mean child age: 20.34 months Mean mother age: 31.68 years <i>Ethnicity</i> Not reported	Mothers who had experienced major depressive disorder since their child's birth	Attachment	Toddler-parent psychotherapy	RCT	Control group and non-depressed comparison group (n = 68)	SSP	The rate of secure attachment increased substantially in the Intervention group and was higher than that for the control group and the non-depressed comparison group	N/A	N/A
Stronach <i>et al.</i> , 2013 ¹⁵² Follow-up of Cicchetti <i>et al.</i> , 2006 ⁸⁷	n = 189 Age Child mean age: 13.31 months Mother mean age: 26.98 years <i>Ethnicity</i> 74.6% minority race	Maltreated infants identified through Child Protective Service	Attachment	CPP	RCT	Psychoeducational parenting intervention or community standard	SSP	At follow-up, children in the CPP group had higher rates of secure and lower rates of disorganised attachment than did children in the psychoeducational parenting intervention or community standard group	N/A	N/A

Study	Participant details (number/age/ethnicity)	Sample risk	Intervention focus	Manualised intervention	Study design	Control group	Attachment measure	Attachment outcomes	Parental sensitivity measure	Parental sensitivity outcomes
Becker-Weidman, 2006 ¹⁵³	n = 64 Age Child mean age: IG: 9.4 years (2.6); CG: 11.7 years (4) Mother age: not reported Ethnicity of child 88% Caucasian, 4% African American, 8% Asian	Children had significant history of physical abuse, physical or psychological neglect, sexual abuse or institutional care and were experiencing PTSD	Attachment	DDP	Non-randomised study	Usual care	RADQ	RADQ scores decreased significantly for the treatment group, increased non-significantly for the control group	N/A	N/A
Becker-Weidman, 2006 ¹⁵⁴ Follow-up of Becker-Weidman, 2006 ¹⁵³	n = 44 Follow-up: 4 years later	Children had significant history of physical abuse, physical or psychological neglect, sexual abuse or institutional care and were experiencing PTSD	Attachment	DDP	Non-randomised study	Usual care	RADQ measures taken 4 years after children in the treatment group ended therapy	RADQ scores decreased significantly for the treatment group; the control group showed statistically significant deterioration in behaviour	N/A	N/A
Salo et al., 2020 ¹⁵⁵	n = 18 Age Child mean age: 4.42 months Parent mean age: 34.90 years	Children from outpatient psychiatric clinics with a diagnosis	Parental sensitivity	Theraplay	Non-randomised study	No control group	N/A	N/A	Emotional Availability Scale	There were improvements in parental sensitivity post intervention

CG, control group; DEF, Developmental Education for Families; IG, intervention group; MIP, Mother–Infant Psychoanalytic treatment; N/A, not applicable; ORCE, Observational Ratings of the Caregiving Environment; PPT, parent–infant psychotherapy; PTSD, post-traumatic stress disorder; RADQ, Randolph Attachment Disorder Questionnaire; SES, socioeconomic status.

Appendix 3 Risk-of-bias assessment

TABLE 24 Risk-of-bias assessment outcomes for included studies from the previous systematic review and update, using the Cochrane risk-of-bias assessment tool

Authors and year	Random sequence	Allocation concealment	Blinding performance	Incomplete outcome	Selective reporting	Other sources of bias
Anisfeld <i>et al.</i> , 1990	Unclear	Unclear	Low	High	High	High
Barnett <i>et al.</i> , 1985, 1987	Unclear	Unclear	Low	High	Unclear	High
Bernard <i>et al.</i> , 2012	Unclear	Unclear	Low	Low	Low	Low
Brisch <i>et al.</i> , 2003	Unclear	Unclear	High	High	High	High
Cassidy <i>et al.</i> , 2011	Unclear	Unclear	Low	High	Unclear	High
Challacombe <i>et al.</i> , 2017	Low	Low	Low	High	Unclear	High
Cooper <i>et al.</i> , 2009	Low	Low	Low	High	Low	Low
Cooper <i>et al.</i> , 2015	Low	Low	Low	High	High	High
Fonagy <i>et al.</i> , 2016	Low	Low	Low	High	Low	High
Gradisar <i>et al.</i> , 2016	Low	Unclear	Low	Unclear	Low	High
Heinicke <i>et al.</i> , 1999, 2000, 2001	Low	Low	Low	Unclear	Unclear	High
Klein Velderman <i>et al.</i> , 2006a, 2006	Unclear	Unclear	Unclear	Low	High	High
Moran <i>et al.</i> , 2005	Unclear	Unclear	Unclear	Low	Low	Low
Moss <i>et al.</i> , 2011	Low	Unclear	Low	High	Unclear	High
Murray <i>et al.</i> , 2003; Cooper <i>et al.</i> , 2003	Low	Unclear	Unclear	High	Unclear	High
Stronach <i>et al.</i> , 2013	Unclear	Unclear	Low	High	Unclear	High
Cicchetti <i>et al.</i> , 2006						
Tereno <i>et al.</i> , 2016	Low	Low	Low	Low	High	High
Toth <i>et al.</i> , 2006; Cicchetti <i>et al.</i> , 1999	Low	Unclear	Low	High	High	High
van den Boom, 1994, 1995	Unclear	Unclear	Low	Unclear	High	High

Appendix 4 Search strategy for systematic reviews

Review 1

These searches contain an update of the searches for both controlled trials and named interventions searches in 'Wright B, Barry M, Hughes E, Trepel D, Ali S, Allgar V, Cottrill L, Duffy S, Fell J, Glanville J, Glaser D. Clinical effectiveness and cost-effectiveness of parenting interventions for children with severe attachment problems: a systematic review and meta-analysis. Health Technology Assessment (Winchester, England). 2015 Jul 1;19(52):vii-xxviii.'

Controlled trials updates

ASSIA via Proquest

Search date=22nd May 2020

Records identified 153 records

(noft(("case control*" OR cohort* OR quantitativ* OR longitudinal OR comparator OR comparison OR comparative OR evaluation OR followup OR "follow up" OR intervention OR multicenter* OR "multi center*" OR multicentre* OR "multi centre*" OR family OR open) NEAR/3 (study OR studies OR trial* OR group OR groups OR series)) OR su(Case controlled studies OR Cohort analysis OR Quantitative methods OR Quantitative analysis OR Longitudinal studies OR Comparative research OR Comparative studies OR Comparative approaches OR Evaluation designs OR Evaluation OR Followup studies OR Followup) OR (noft(random* OR "clin* trial*" OR control* OR prospectiv* OR placebo*) OR noft((singl* OR doubl* OR tripl* OR trebl*) NEAR/3 (blind* OR mask*))) OR su(Randomization OR Randomized consent design OR Randomized controlled trials OR Clinical randomized controlled trials OR Cluster randomized controlled trials OR Double blind randomized controlled trials OR Single blind randomized controlled trials OR randomization OR Clinical trials OR Double blind randomized trials OR Placebos OR Placebo effect OR Control groups OR Prospective controlled trials OR Prospective studies)) AND ((su(attachment disorders) OR (if(attachment NEAR/2 (disorder* OR problem* OR style* OR pattern*)) OR noft(attachment NEAR/2 (behavior* OR behavior* OR ambivalen* OR avoidance OR diffuse OR organi* OR disorgani* OR disrupt* OR abnormal* OR disinhib* OR inhib*))) OR (noft(attachment NEAR/2 (disorienta* OR reactive OR anxious* OR disturb* OR relation*)) OR if(attachment NEAR/2 (interven* OR insecure* OR secure OR security OR early OR theory OR theories)))) AND ((su(Children OR Infants OR Adolescents OR Parents OR Dyads) OR noft(Child neglect OR Child abuse OR Foster Care OR Foster children OR Adoption OR Adopted children OR Adoptive parents)) OR if(child* OR infant* OR infancy OR preschool* OR "pre school*" OR baby OR babies OR pediat* OR paediat* OR boy OR boys OR girl OR girls OR schoolchild* OR adolescen* OR juvenile* OR youth* OR teenage* OR youngster* OR "young people" OR "young person" OR "young persons" OR "young adult*" OR "early adult*") OR if(parent* OR mother* OR maternal* OR mum* OR father* OR paternal* OR dad* OR dyad* OR attunement OR (representation* NEAR/2 model*)) OR noft(neglect* OR abuse OR abused OR abusive OR maltreat* OR mistreat* OR foster* OR adopt*)))Limits applied

Cochrane Central Register of Controlled Trials (CENTRAL) via the Cochrane Library

Search date 20th May 2020

Records =138

- #1 MeSH descriptor: [Reactive Attachment Disorder] explode all trees
- #2 (attachment NEAR/3 (disorder* or problem* or style* or pattern*)):ti,ab,kw
- #3 (attachment NEAR/3 (behavio?r* or ambivalen* or avoidant or diffuse or organi* or disorgani* or disrupt* or abnormal* or disinhib* or inhib*)):ti,ab,kw
- #4 (attachment NEAR/3 (disorienta* or reactive or anxious* or disturb* or relation*)):ti,ab,kw
- #5 (attachment NEAR/3 (interven* or insecure* or secure or security or early or theory or theories)):ti,ab,kw
- #6 #1 or #2 or #3 or #4 or #5

Conference Proceedings Citation Index – Social Sciences & Humanities Via Web of Science

Search date 22nd May 2020

Records 12

- # 23 12 #22 AND #18
Indexes=CPCI-SSH Timespan=2016-2020
- # 22 34,068 #21 OR #20 OR #19
Indexes=CPCI-SSH Timespan=2016-2020
- # 21 51 TS=((singl* or doubl* or tripl* or trebl*) NEAR/2 (blind* or mask*))
Indexes=CPCI-SSH Timespan=2016-2020
- # 20 4,547 TS=(random* or "clin* trial*" or "controlled study" or "controlled studies" or "controlled trial*" or "control* group" or "control* groups" or "control* series" or prospective)
Indexes=CPCI-SSH Timespan=2016-2020
- # 19 30,903 TS=("case control*" or cohort* or quantitative* or longitudinal or comparat* or comparison or evaluation or followup or "follow up" or intervention or multicenter* or "multi center*" or multicentre* or "multi centre*")
Indexes=CPCI-SSH Timespan=2016-2020
- # 18 40 #16 not #17
Indexes=CPCI-SSH Timespan=2016-2020
- # 17 1,425 TS=(rat or rats or mouse or mice or murine or hamster or hamsters or animal or animals or dogs or dog or pig or pigs or cats or bovine or cow or sheep or ovine or porcine or monkey)
Indexes=CPCI-SSH Timespan=2016-2020
- # 16 40 #15 AND #5
Indexes=CPCI-SSH Timespan=2016-2020
- # 15 22,155 #14 OR #13 OR #12 OR #11 OR #10 OR #9 OR #8 OR #7 OR #6
Indexes=CPCI-SSH Timespan=2016-2020
- # 14 9,782 TS=(foster* or adopt*)
Indexes=CPCI-SSH Timespan=2016-2020
- # 13 1,594 TS=(neglect* or abuse or abused or abusive or maltreat* or mistreat*)
Indexes=CPCI-SSH Timespan=2016-2020
- # 12 105 TS=(attunement or (representation* NEAR/2 model*))
Indexes=CPCI-SSH Timespan=2016-2020

11 136 TS=dyad*
 Indexes=CPCI-SSH Timespan=2016-2020

10 3,502 TS=(parent* or mother* or maternal* or mum* or father* or paternal* or dad*)
 Indexes=CPCI-SSH Timespan=2016-2020

9 1,468 TS=("young people" or "young person" or "young persons" or "young adult*" or "early adult*")
 Indexes=CPCI-SSH Timespan=2016-2020

8 2,864 TS=(schoolchild* or adolescen* or juvenile* or youth* or teenage* or youngster*)
 Indexes=CPCI-SSH Timespan=2016-2020

7 726 TS=(boy or boys or girl or girls)
 Indexes=CPCI-SSH Timespan=2016-2020

6 7,120 TS=(child* or infant* or infancy or preschool* or "pre school*" or baby or babies or pediat* or paediat*)
 Indexes=CPCI-SSH Timespan=2016-2020

5 73 #4 OR #3 OR #2 OR #1
 Indexes=CPCI-SSH Timespan=2016-2020

4 40 TS=(attachment NEAR/2 (interven* or insecure* or secure or security or early or theory or theories))
 Indexes=CPCI-SSH Timespan=2016-2020

3 23 TS=(attachment NEAR/2 (disorienta* or reactive or anxious* or disturb* or relation*))
 Indexes=CPCI-SSH Timespan=2016-2020

2 14 TS=(attachment NEAR/2 (behavior\$r* or ambivalen* or avoidant or diffuse or organi* or disorgani* or disrupt* or abnormal* or disinhib* or inhib*))
 Indexes=CPCI-SSH Timespan=2016-2020

1 32 TS=(attachment NEAR/2 (disorder\$ or problem\$ or style\$ or pattern\$))
 Indexes=CPCI-SSH Timespan=2016-2020

Conference Proceedings Citation Index - Science

Via web of Science

Search date 22nd May 2020

Records 12

23 12 #22 AND #18
 Indexes=CPCI-S Timespan=2016-2020

22 346,604 #21 OR #20 OR #19
 Indexes=CPCI-S Timespan=2016-2020

21 3,414 TS=((singl* or doubl* or tripl* or trebl*) NEAR/2 (blind* or mask*))
 Indexes=CPCI-S Timespan=2016-2020

20 77,857 TS=(random* or "clin* trial*" or "controlled study" or "controlled studies" or "controlled trial*" or "control* group" or "control* groups" or "control* series" or prospective)
 Indexes=CPCI-S Timespan=2016-2020

19 286,728 TS=("case control*" or cohort* or quantitative* or longitudinal or comparat* or comparison or evaluation or followup or "follow up" or intervention or multicenter* or "multi center*" or multicentre* or "multi centre*")
 Indexes=CPCI-S Timespan=2016-2020

18 40 #16 not #17
 Indexes=CPCI-S Timespan=2016-2020

17 59,313 TS=(rat or rats or mouse or mice or murine or hamster or hamsters or animal or animals or dogs or dog or pig or pigs or cats or bovine or cow or sheep or ovine or porcine or monkey)
 Indexes=CPCI-S Timespan=2016-2020

16 40 #15 AND #5
 Indexes=CPCI-S Timespan=2016-2020

15 122,034 #14 OR #13 OR #12 OR #11 OR #10 OR #9 OR #8 OR #7 OR #6
 Indexes=CPCI-S Timespan=2016-2020

14 52,584 TS=(foster* or adopt*)
 Indexes=CPCI-S Timespan=2016-2020

13 6,691 TS=(neglect* or abuse or abused or abusive or maltreat* or mistreat*)
 Indexes=CPCI-S Timespan=2016-2020

12 1,541 TS=(attunement or (representation* NEAR/2 model*))
 Indexes=CPCI-S Timespan=2016-2020

11 665 TS=dyad*
 Indexes=CPCI-S Timespan=2016-2020

10 12,970 TS=(parent* or mother* or maternal* or mum* or father* or paternal* or dad*)
 Indexes=CPCI-S Timespan=2016-2020

9 3,531 TS=(“young people” or “young person” or “young persons” or “young adult*” or “early adult”*)
 Indexes=CPCI-S Timespan=2016-2020

8 10,661 TS=(schoolchild* or adolescen* or juvenile* or youth* or teenage* or youngster*)
 Indexes=CPCI-S Timespan=2016-2020

7 1,437 TS=(boy or boys or girl or girls)
 Indexes=CPCI-S Timespan=2016-2020

6 42,714 TS=(child* or infant* or infancy or preschool* or “pre school*” or baby or babies or pediat* or paediat*)
 Indexes=CPCI-S Timespan=2016-2020

5 113 #4 OR #3 OR #2 OR #1
 Indexes=CPCI-S Timespan=2016-2020

4 42 TS=(attachment NEAR/2 (interven* or insecure* or secure or security or early or theory or theories))
 Indexes=CPCI-S Timespan=2016-2020

3 27 TS=(attachment NEAR/2 (disorienta* or reactive or anxious* or disturb* or relation*))
 Indexes=CPCI-S Timespan=2016-2020

2 18 TS=(attachment NEAR/2 (behavior\$r* or ambivalen* or avoidant or diffuse or organi* or disorgani* or disrupt* or abnormal* or disinhib* or inhib*))
 Indexes=CPCI-S Timespan=2016-2020

1 49 TS=(attachment NEAR/2 (disorder\$ or problem\$ or style\$ or pattern\$))
 Indexes=CPCI-S Timespan=2016-2020

Embase**Via OVID****Search date 22nd May 2020****Records = 218****Database: Embase <1996 to 2020 Week 20>**

- 1 (attachment adj2 (disorder\$1 or problem\$1 or style\$1 or pattern\$1)).ti,ab. (3570)
- 2 (attachment adj2 (behavio?r\$ or ambivalen\$ or avoidant or diffuse or organi\$ or disorgani\$ or disrupt\$ or abnormal\$ or disinhib\$ or inhib\$)).ti,ab. (3735)
- 3 (attachment adj2 (disorienta\$ or reactive or anxious\$ or disturb\$ or relation\$)).ti,ab. (2447)
- 4 (attachment adj2 (interven\$ or insecure\$ or secure or security or early or theory or theories)).ti,ab. (5169)
- 5 1 or 2 or 3 or 4 (10305)
- 6 randomized controlled trial/ (556799)
- 7 controlled clinical trial/ (418199)
- 8 random\$.ti,ab,ot. (1395946)
- 9 randomization/ (78431)
- 10 intermethod comparison/ (250706)
- 11 placebo.ti,ab,ot. (256248)
- 12 (compare or compared or comparison).ti,ot. (389908)
- 13 ((evaluated or evaluate or evaluating or assessed or assess) and (compare or compared or comparing or comparison)).ab. (1976529)
- 14 (open adj label).ti,ab,ot. (77368)
- 15 ((double or single or doubly or singly) adj (blind or blinded or blindly)).ti,ab,ot. (182628)
- 16 double blind procedure/ (145737)
- 17 (parallel adj1 group\$1).ti,ab,ot. (23561)
- 18 (crossover or cross over).ti,ab,ot. (84463)
- 19 ((assign\$ or match or matched or allocation) adj5 (alternate or group\$1 or intervention\$1 or patient\$1 or subject\$1 or participant\$1)).ti,ab,ot. (295799)
- 20 (assigned or allocated).ti,ab,ot. (346360)
- 21 (controlled adj7 (study or design or trial)).ti,ab,ot. (315692)
- 22 (volunteer or volunteers).ti,ab,ot. (195144)
- 23 human experiment/ (363936)
- 24 trial.ti,ot. (267464)
- 25 or/6-24 (4376915)
- 26 (random\$ adj sampl\$ adj7 ("cross section\$" or questionnaire\$1 or survey\$ or database\$1)).ti,ab,ot. (10075)
- 27 comparative study/ or controlled study/ or randomi?ed controlled.ti,ab,ot. or randomly assigned.ti,ab,ot. (7348686)
- 28 26 not 27 (7123)
- 29 Cross-sectional study/ (341216)
- 30 randomized controlled trial/ or controlled clinical trial/ or controlled study/ or randomi?ed controlled.ti,ab,ot. or control group\$1.ti,ab,ot. (7154254)
- 31 29 not 30 (228938)
- 32 (((case adj control\$) and random\$) not randomi?ed controlled).ti,ab,ot. (16122)
- 33 (Systematic review not (trial or study)).ti,ot. (141344)
- 34 (nonrandom\$ not random\$).ti,ab,ot. (13461)
- 35 "Random field\$".ti,ab,ot. (2233)
- 36 (random cluster adj3 sampl\$).ti,ab,ot. (1221)

- 37 (review.ab. and review.pt.) not trial.ti,ot. (761076)
- 38 "we searched".ab. and (review.ti,ot. or review.pt.) (31554)
- 39 "update review".ab. (94)
- 40 (databases adj4 searched).ab. (35064)
- 41 27 or 28 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 (8351879)
- 42 25 not 41 (1846523)
- 43 (rat or rats or mouse or mice or swine or porcine or murine or sheep or lambs or pigs or piglets or rabbit or rabbits or cat or cats or dog or dogs or cattle or bovine or monkey or monkeys or trout or marmoset\$1).ti,ot. and animal experiment/ (685208)
- 44 Animal experiment/ not (human experiment/ or human/) (1435615)
- 45 43 or 44 (1476442)
- 46 42 not 45 (1817862)
- 47 5 and 46 (740)
- 48 child/ (1297646)
- 49 infant/ (421709)
- 50 adolescent/ (1158586)
- 51 (child\$ or infant\$ or infancy or preschool\$ or pre school\$ or baby or babies or pediat\$ or paediat\$).ti,ab. (1811787)
- 52 (boy or boys or girl or girls).ti,ab. (243147)
- 53 (schoolchild\$ or adolescen\$ or juvenile\$ or youth\$ or teenage\$ or youngster\$).ti,ab. (454404)
- 54 (young people or young person or young persons or young adult\$ or early adult\$).ti,ab. (146354)
- 55 exp parent/ (207754)
- 56 exp child parent relation/ (64821)
- 57 (parent\$ or mother\$ or maternal\$ or mum\$ or father\$ or paternal\$ or dad\$).ti,ab. (1232219)
- 58 dyad\$.ti,ab. (22007)
- 59 (attunement or (representation\$ adj2 model\$)).ti,ab. (1923)
- 60 child abuse/ or child neglect/ (22814)
- 61 foster care/ (3557)
- 62 adoption/ or adopted child/ (12169)
- 63 (neglect\$ or abuse or abused or abusive or maltreat\$ or mistreat\$).ti,ab. (196875)
- 64 (foster\$ or adopt\$).ti,ab. (321003)
- 65 or/48-64 (4150506)
- 66 47 and 65 (478)
- 67 ("201600" or "201700" or "201800" or "201900" or "202001" or "202002" or "202004" or "202005" or "202006" or "202007" or "202008" or "202009" or "202011" or "202012" or "202013" or "202014" or "202015" or "202016" or "202018" or "202019" or "202020" or "202099").em. (8366710)
- 68 66 and 67 (218)

ERIC**Via Ebsco****Search date = 22nd May 2020****Records =60**

S1 SU "Attachment Behavior" OR TI ((attachment NEAR/2 (disorder* OR problem* OR style* OR pattern*))) OR AB ((attachment NEAR/2 (disorder* OR problem* OR style* OR pattern*))) OR TI ((attachment NEAR/2 (behavior*r* OR ambivalen* OR avoidant OR diffuse OR organi* OR disorgani* OR disrupt* OR abnormal* OR disinhib* OR inhib*))) OR AB ((attachment NEAR/2 (behavior*r* OR ambivalen* OR avoidant OR diffuse OR organi* OR disorgani* OR disrupt* OR abnormal* OR disinhib* OR inhib*))) OR ((attachment NEAR/2 (disorienta* OR reactive OR anxious* OR disturb* OR relation* OR interven* OR insecure* OR secure OR security OR early OR theory OR theories))) OR ((attachment NEAR/2 (disorienta* OR reactive OR anxious* OR disturb* OR relation* OR interven* OR insecure* OR secure OR security OR early OR theory OR theories))) 3675 records

S2 SU (("Case Studies" OR "Followup Studies" OR "Longitudinal Studies")) OR TI (("case control*" or cohort* or longitudinal or followup or "follow up" or multicenter* or "multi center*" or multicentre* or "multi centre*")) OR AB (("case control*" or cohort* or longitudinal or followup or "follow up" or multicenter* or "multi center*" or multicentre* or "multi centre*")) OR TI ((random* or "clin* trial*" or "controlled study" or "controlled studies" or "controlled trial*" or "control* group" or "control* groups" or "control* series" or "prospective study" or "prospective studies" or "prospective trial*")) OR AB ((random* or "clin* trial*" or "controlled study" or "controlled studies" or "controlled trial*" or "control* group" or "control* groups" or "control* series" or "prospective study" or "prospective studies" or "prospective trial*")) OR TI (((singl* or doubl* or tripl* or trebl*) NEAR/2 (blind* or mask*))) OR AB (((singl* or doubl* or tripl* or trebl*) NEAR/2 (blind* or mask*))) 130,413 records

S3 S1 AND S2 60 RECORDS 20160101-20201231 PUBLISHED

MEDLINE**Via OVID****Search date 22nd May 2020****Records = 216****Database: Ovid MEDLINE(R) ALL <1946 to May 21, 2020>**

- 1 Reactive Attachment Disorder/ (563)
- 2 (attachment adj2 (disorder\$1 or problem\$1 or style\$1 or pattern\$1)).ti,ab. (2824)
- 3 (attachment adj2 (behavior?r\$ or ambivalen\$ or avoidant or diffuse or organi\$ or disorgani\$ or disrupt\$ or abnormal\$ or disinhib\$ or inhib\$)).ti,ab. (3973)
- 4 (attachment adj2 (disorienta\$ or reactive or anxious\$ or disturb\$ or relation\$)).ti,ab. (2120)
- 5 (attachment adj2 (interven\$ or insecure\$ or secure or security or early or theory or theories)).ti,ab. (4338)
- 6 1 or 2 or 3 or 4 or 5 (9740)
- 7 randomized controlled trial.pt. (506044)
- 8 controlled clinical trial.pt. (93681)
- 9 randomized.ab. (479897)
- 10 placebo.ab. (207836)
- 11 drug therapy.fs. (2204892)
- 12 randomly.ab. (333448)

- 13 trial.ab. (505888)
- 14 groups.ab. (2047140)
- 15 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 (4706155)
- 16 6 and 15 (1362)
- 17 exp animals/ not humans.sh. (4700621)
- 18 16 not 17 (1285)
- 19 (letter or editorial or comment or news or newspaper article).pt. (2045612)
- 20 18 not 19 (1276)
- 21 exp Child/ (1895861)
- 22 exp Infant/ (1131721)
- 23 Adolescent/ (2011578)
- 24 (child\$ or infant\$ or infancy or preschool\$ or pre school\$ or baby or babies or pedit\$ or paediat\$).ti,ab. (1850715)
- 25 (boy or boys or girl or girls).ti,ab. (227052)
- 26 (schoolchild\$ or adolescen\$ or juvenile\$ or youth\$ or teenage\$ or youngster\$).ti,ab. (418923)
- 27 (young people or young person or young persons or young adult\$ or early adult\$).ti,ab. (126111)
- 28 exp Parents/ (111486)
- 29 exp Parent-Child Relations/ or Parenting/ (65457)
- 30 (parent\$ or mother\$ or maternal\$ or mum\$ or father\$ or paternal\$ or dad\$).ti,ab. (995627)
- 31 dyad\$.ti,ab. (21426)
- 32 (attunement or (representation\$ adj2 model\$)).ti,ab. (1825)
- 33 Child Abuse/ (22014)
- 34 Foster Home Care/ (3601)
- 35 Adoption/ (4781)
- 36 (neglect\$ or abuse or abused or abusive or maltreat\$ or mistreat\$).ti,ab. (185424)
- 37 (foster\$ or adopt\$).ti,ab. (283505)
- 38 or/21-37 (5098009)
- 39 20 and 38 (818)
- 40 (201609\$ or 2017\$ or 2018\$ or 2019\$ or 2020\$).dt. (4429458)
- 41 39 and 40 (216)

PsycINFO**Via OVID****Search date= 22nd May 2020****Records = 284****Database: APA PsycInfo <1806 to May Week 3 2020>**

- 1 attachment behavior/ (21723)
- 2 attachment disorders/ (679)
- 3 attachment theory/ (2024)
- 4 (attachment adj2 (disorder\$1 or problem\$1 or style\$1 or pattern\$1)).ti,ab. (7722)
- 5 (attachment adj2 (behavio?r\$ or ambivalen\$ or avoidant or diffuse or organi\$ or disorgani\$ or disrupt\$ or abnormal\$ or disinhib\$ or inhib\$)).ti,ab. (4505)
- 6 (attachment adj2 (disorienta\$ or reactive or anxious\$ or disturb\$ or relation\$)).ti,ab. (6482)
- 7 (attachment adj2 (interven\$ or insecure\$ or secure or security or early or theory or theories)).ti,ab. (13168)

- 8 or/1-7 (29484)
 9 (double-blind or random\$ assigned or control).tw. (482569)
 10 8 and 9 (2193)
 11 (comment reply or editorial or letter or reprint or "review book" or "review media" or "review software other").dt. (327053)
 12 (animal or animals or rat or rats or mouse or mice or hamster or hamsters or dog or dogs or cat or cats or bovine or sheep or ovine or pig or pigs).ab,ti,id,de. (353562)
 13 10 not (11 or 12) (2076)
 14 (infancy 2 23 mo or neonatal birth 1 mo or preschool age 2 5 yrs).ag. (170622)
 15 (adolescence 13 17 yrs or childhood birth 12 yrs or school age 6 12 yrs).ag. (784198)
 16 (child\$ or infant\$ or infancy or preschool\$ or pre school\$ or baby or babies or pediat\$ or paediat\$).ti,ab. (753619)
 17 (boy or boys or girl or girls).ti,ab. (101162)
 18 (schoolchild\$ or adolescen\$ or juvenile\$ or youth\$ or teenage\$ or youngster\$).ti,ab. (318727)
 19 (young people or young person or young persons or young adult\$ or early adult\$).ti,ab. (78498)
 20 exp Parents/ (116075)
 21 exp Parenting/ (109648)
 22 (parent\$ or mother\$ or maternal\$ or mum\$ or father\$ or paternal\$ or dad\$).ti,ab. (379701)
 23 Dyads/ (6235)
 24 dyad\$.ti,ab. (33281)
 25 (attunement or (representation\$ adj2 model\$)).ti,ab. (2964)
 26 exp Child Neglect/ or exp Child Abuse/ (30424)
 27 exp Foster Children/ or exp Foster Care/ or exp Foster Parents/ (6906)
 28 exp "Adoption (Child)"/ or exp Adoptive Parents/ (5677)
 29 (neglect\$ or abuse or abused or abusive or maltreat\$ or mistreat\$).ti,ab. (159784)
 30 (foster\$ or adopt\$).ti,ab. (138580)
 31 or/14-30 (1478764)
 32 13 and 31 (1517)
 33 (201609\$ or 2017\$ or 2018\$ or 2019\$ or 2020\$).up. (616526)
 34 32 and 33 (284)

Science Citation Index

Via Web of Science

Search date 22nd May 2020

Records = 407

23 407 #22 AND #18

Indexes=SCI-EXPANDED Timespan=2016-2020

22 2,215,390 #21 OR #20 OR #19

Indexes=SCI-EXPANDED Timespan=2016-2020

21 67,953 TS=((singl* or doubl* or tripl* or trebl*) NEAR/2 (blind* or mask*))

Indexes=SCI-EXPANDED Timespan=2016-2020

20 700,095 TS=(random* or "clin* trial*" or "controlled study" or "controlled studies" or "controlled trial*" or "control* group" or "control* groups" or "control* series" or prospective)
 Indexes=SCI-EXPANDED Timespan=2016-2020

19 1,823,695 TS=("case control*" or cohort* or quantitative* or longitudinal or comparat* or comparison or evaluation or followup or "follow up" or intervention or multicenter* or "multi center*" or multicentre* or "multi centre*")
 Indexes=SCI-EXPANDED Timespan=2016-2020

18 819 #16 not #17
 Indexes=SCI-EXPANDED Timespan=2016-2020

17 757,300 TS=(rat or rats or mouse or mice or murine or hamster or hamsters or animal or animals or dogs or dog or pig or pigs or cats or bovine or cow or sheep or ovine or porcine or monkey)
 Indexes=SCI-EXPANDED Timespan=2016-2020

16 891 #15 AND #5
 Indexes=SCI-EXPANDED Timespan=2016-2020

15 814,750 #14 OR #13 OR #12 OR #11 OR #10 OR #9 OR #8 OR #7 OR #6
 Indexes=SCI-EXPANDED Timespan=2016-2020

14 176,948 TS=(foster* or adopt*)
 Indexes=SCI-EXPANDED Timespan=2016-2020

13 55,573 TS=(neglect* or abuse or abused or abusive or maltreat* or mistreat*)
 Indexes=SCI-EXPANDED Timespan=2016-2020

12 3,387 TS=(attunement or (representation* NEAR/2 model*)
 Indexes=SCI-EXPANDED Timespan=2016-2020

11 7,233 TS=dyad*
 Indexes=SCI-EXPANDED Timespan=2016-2020

10 183,001 TS=(parent* or mother* or maternal* or mum* or father* or paternal* or dad*)
 Indexes=SCI-EXPANDED Timespan=2016-2020

9 38,271 TS=("young people" or "young person" or "young persons" or "young adult*" or "early adult*")
 Indexes=SCI-EXPANDED Timespan=2016-2020

8 133,397 TS=(schoolchild* or adolescen* or juvenile* or youth* or teenage* or youngster*)
 Indexes=SCI-EXPANDED Timespan=2016-2020

7 33,027 TS=(boy or boys or girl or girls)
 Indexes=SCI-EXPANDED Timespan=2016-2020

6 399,676 TS=(child* or infant* or infancy or preschool* or "pre school*" or baby or babies or pediat* or paediat*)
 Indexes=SCI-EXPANDED Timespan=2016-2020

5 2,054 #4 OR #3 OR #2 OR #1
 Indexes=SCI-EXPANDED Timespan=2016-2020

4 848 TS=(attachment NEAR/2 (interven* or insecure* or secure or security or early or theory or theories))
 Indexes=SCI-EXPANDED Timespan=2016-2020

3 454 TS=(attachment NEAR/2 (disorienta* or reactive or anxious* or disturb* or relation*))

Indexes=SCI-EXPANDED Timespan=2016-2020

2 753 TS=(attachment NEAR/2 (behavior\$r* or ambivalen* or avoidant or diffuse or organi* or disorgani* or disrupt* or abnormal* or disinhib* or inhib*))

Indexes=SCI-EXPANDED Timespan=2016-2020

1 723 TS=(attachment NEAR/2 (disorder\$ or problem\$ or style\$ or pattern\$))

Indexes=SCI-EXPANDED Timespan=2016-2020

Social Care Online

Via <https://www.scie-socialcareonline.org.uk/>

Search date 26th May 2020

52 records identified, 23 records after deduplication

Subject: attachment

AND

AllFields: randomised controlled trials /case studies / longitudinal studies /case control /cohort study / cohort studies / longitudinal study / longitudinal studies / follow up / multicentre / multicenter / random / prospective

Subject: attachment disorder

AND

AllFields: randomised controlled trials /case studies / longitudinal studies /case control /cohort study / cohort studies / longitudinal study / longitudinal studies / follow up / multicentre / multicenter / random / prospective

Social Policy & Practice

Via OVID

Search date 22nd May 2020

Records =84

Database: Social Policy and Practice <202004>

1 attachment disorder.mp. [mp=abstract, title, publication type, heading word, accession number] (139)

2 (attachment adj2 (disorder\$1 or problem\$1 or style\$1 or pattern\$1)).ti,ab. (858)

3 (attachment adj2 (behavio?r\$ or ambivalen\$ or avoidant or diffuse or organi\$ or disorgani\$ or disrupt\$ or abnormal\$ or disinhib\$ or inhib\$)).ti,ab. (472)

4 (attachment adj2 (disorienta\$ or reactive or anxious\$ or disturb\$ or relation\$)).ti,ab. (611)

5 (attachment adj2 (interven\$ or insecure\$ or secure or security or early or theory or theories)).ti,ab. (1642)

6 or/1-5 (2450)

7 (random\$ or clin\$ trial\$ or control\$ or prospectiv\$ or placebo\$).ti,ab,de. (38672)

8 ((singl\$ or doubl\$ or tripl\$ or trebl\$) adj3 (blind\$ or mask\$)).ti,ab,de. (190)

9 ((case control\$ or cohort\$ or prospectiv\$ or quantitativ\$ or longitudinal or comparator or comparison or comparative or control\$ or evaluation or followup or follow up or intervention or multicenter\$ or multi center\$ or multicentre\$ or multi centre\$ or family or open) adj3 (study or studies or trial\$ or group or groups or series)).ti,ab,de. (27315)

10 or/7-9 (54618)

11 6 and 10 (429)

12 (child\$ or infant\$ or infancy or preschool\$ or pre school\$ or baby or babies or pediat\$ or paediat\$).ti,ab,de. (148842)

13 (boy or boys or girl or girls).ti,ab,de. (6964)

- 14 (schoolchild\$ or adolescen\$ or juvenile\$ or youth\$ or teenage\$ or youngster\$).ti,ab,de. (39074)
- 15 (young people or young person or young persons or young adult\$ or early adult\$).ti,ab,de. (62029)
- 16 (parent\$ or mother\$ or maternal\$ or mum\$ or father\$ or paternal\$ or dad\$).ti,ab,de. (60240)
- 17 dyad\$.ti,ab,de. (1538)
- 18 (attunement or (representation\$ adj2 model\$)).ti,ab,de. (162)
- 19 (neglect\$ or abuse or abused or abusive or maltreat\$ or mistreat\$).ti,ab,de. (45876)
- 20 (foster\$ or adopt\$).ti,ab,de. (32694)
- 21 or/12-20 (216651)
- 22 11 and 21 (379)
- 23 ("2016" or "2017" or "2018" or "2019" or "2020").yr. (62788)
- 24 22 and 23 (84)

Social Science Citation Index

Via Web of science

Search date 22nd May 2020

Records 1174

23 1,174 #22 AND #18

Indexes=SSCI Timespan=2016-2020

22 448,149 #21 OR #20 OR #19

Indexes=SSCI Timespan=2016-2020

21 8,990 TS=((singl* or doubl* or tripl* or trebl*) NEAR/2 (blind* or mask*)

Indexes=SSCI Timespan=2016-2020

20 130,874 TS=(random* or "clin* trial*" or "controlled study" or "controlled studies" or "controlled trial*" or "control* group" or "control* groups" or "control* series" or prospective)

Indexes=SSCI Timespan=2016-2020

19 395,959 TS=("case control*" or cohort* or quantitative* or longitudinal or comparat* or comparison or evaluation or followup or "follow up" or intervention or multicenter* or "multi center*" or multicentre* or "multi centre*")

Indexes=SSCI Timespan=2016-2020

18 2,609 #16 not #17

Indexes=SSCI Timespan=2016-2020

17 34,391 TS=(rat or rats or mouse or mice or murine or hamster or hamsters or animal or animals or dogs or dog or pig or pigs or cats or bovine or cow or sheep or ovine or porcine or monkey)

Indexes=SSCI Timespan=2016-2020

16 2,675 #15 AND #5

Indexes=SSCI Timespan=2016-2020

15 356,197 #14 OR #13 OR #12 OR #11 OR #10 OR #9 OR #8 OR #7 OR #6

Indexes=SSCI Timespan=2016-2020

14 78,848 TS=(foster* or adopt*)

Indexes=SSCI Timespan=2016-2020

13 42,525 TS=(neglect* or abuse or abused or abusive or maltreat* or mistreat*)

Indexes=SSCI Timespan=2016-2020

12 1,079 TS=(attunement or (representation* NEAR/2 model*)
 Indexes=SSCI Timespan=2016-2020
 # 11 9,085 TS=dyad*
 Indexes=SSCI Timespan=2016-2020
 # 10 89,515 TS=(parent* or mother* or maternal* or mum* or father* or
 paternal* or dad*)
 Indexes=SSCI Timespan=2016-2020
 # 9 33,287 TS=("young people" or "young person" or "young persons"
 or "young adult*" or "early adult*")
 Indexes=SSCI Timespan=2016-2020
 # 8 99,438 TS=(schoolchild* or adolescen* or juvenile* or youth* or
 teenage* or youngster*)
 Indexes=SSCI Timespan=2016-2020
 # 7 20,537 TS=(boy or boys or girl or girls)
 Indexes=SSCI Timespan=2016-2020
 # 6 180,116 TS=(child* or infant* or infancy or preschool* or "pre
 school*" or baby or babies or pediat* or paediat*)
 Indexes=SSCI Timespan=2016-2020
 # 5 3,940 #4 OR #3 OR #2 OR #1
 Indexes=SSCI Timespan=2016-2020
 # 4 2,361 TS=(attachment NEAR/2 (interven* or insecure* or secure or security
 or early or theory or theories))
 Indexes=SSCI Timespan=2016-2020
 # 3 1,379 TS=(attachment NEAR/2 (disorienta* or reactive or anxious* or
 disturb* or relation*))
 Indexes=SSCI Timespan=2016-2020
 # 2 761 TS=(attachment NEAR/2 (behavior\$r* or ambivalen* or avoidant or
 diffuse or organi* or disorgani* or disrupt* or abnormal* or disinhib* or inhib*))
 Indexes=SSCI Timespan=2016-2020
 # 1 1,535 TS=(attachment NEAR/2 (disorder\$ or problem\$ or style\$ or pattern\$))
 Indexes=SSCI Timespan=2016-2020

Social Services Abstracts

Via Proquest

Search date 22nd May 2020

Records 4

((if(attachment NEAR/2 (disorder* OR problem* OR style* OR pattern*)) OR
 if(attachment NEAR/2 (behavior* OR behaviour* OR ambivalen* OR avoidance
 OR diffuse OR organi* OR disorgani* OR disrupt* OR abnormal* OR disinhib* OR
 inhib*)) OR if(attachment NEAR/2 (disorienta* OR reactive OR anxious* OR disturb*
 OR relation)) OR if(attachment NEAR/2 (interven* OR insecure* OR secure OR
 security OR early OR theory OR theories))) AND (su(adolescents OR children OR
 infants) OR if(child* OR infant* OR infancy OR preschool* OR "pre school*" OR baby
 OR babies OR pediat* OR paediat* OR boy OR boys OR girl OR girls OR
 schoolchild* OR adolescen* OR juvenile* OR youth* OR teenage* OR youngster*
 "young people" OR "young person" OR "young persons" OR "young adult*" OR
 "early adult*") OR su(Dyads OR Child Neglect OR Child Abuse OR Foster Care OR
 Foster Children OR Adoption OR Adopted Children) OR if(parent* OR mother*
 OR maternal* OR mum* OR father* OR paternal* OR dad* OR dyad* OR attunement)

OR (if(representation* NEAR/2 model*) OR if(neglect* OR abuse OR abused OR abusive OR maltreat* OR mistreat* OR foster* OR adopt*)) AND (su(Longitudinal Studies OR Case Studies OR Cohort Analysis) OR if(case control* OR cohort* OR longitudinal OR followup OR "follow up" OR multicenter* OR "multi center*" OR multicentre* OR "multi centre*" OR family OR open NEAR/3 study OR studies OR trial* OR group OR groups OR series))

Named interventions update

ASSIA via Proquest

4th June 2020, 99 records

((mainsubject(Interventions) OR mainsubject("Psychodynamics") OR su("Play therapy")) OR IF(((theraplay) OR (play NEAR/3 (therap* OR program OR intervention*))) OR (((preschool* OR "pre school*" OR child* OR infant*) NEAR/3 (psychotherap* OR "psycho therap*")) OR (watch NEAR/2 wait) OR ((interaction OR interactive) NEAR/3 guidance) OR (biobehavio* OR "bio behavio*")) OR ("New Orleans" NEAR/3 (intervention* OR program* OR therap*)) OR ((tulane NEAR/3 (team* OR program* OR intervention* OR therap*)) OR ((parent* OR mother* OR father* OR dyad*) NEAR/3 (psychotherap* OR "psycho therap*"))) OR (((parent* OR child*) NEAR/2 game*) OR (floodtide OR (floor NEAR/2 time)) OR (manipulat* NEAR/3 respons*)) OR (Leiden NEAR/3 (program* OR intervention* OR therap*)) OR (((preschool* OR "pre school*" OR child* OR infant*) NEAR/3 (psychotherap* OR "psycho therap*")) OR (watch NEAR/2 wait) OR ((interaction OR interactive) NEAR/3 guidance) OR (modif* NEAR/3 guidance) OR (vis OR vips OR vie)) OR (clinician* NEAR/3 exposure*) OR (CAVES) OR (tamara NEAR/3 Children*) OR (Florida NEAR/3 (program* OR intervention* OR therap*)) OR (psychodynamic NEAR/3 psychotherap*) OR ("story" NEAR/3 stem*) OR ("stories" NEAR/3 stem*))) OR (if((home OR hospital OR family) NEAR/3 visit*) OR if("Project CARE" OR "Orion Project") OR if(violent NEAR/3 resistan*) OR if(nonviolent NEAR/3 resistan*) OR if(NVR)) OR (if(cues NEAR/3 clues) OR if(mellow NEAR/3 (baby OR babies OR parent*)) OR if(solihull OR bath OR bathe OR bathing OR massag* OR tickl*) OR if(self NEAR/2 regulat*) AND if(personal NEAR/3 contact*) AND if((baby OR babies OR infant*) NEAR/2 (carrier* OR carry*)) AND if((feed* OR food OR water) NEAR/3 (therap* OR program OR intervention*)) OR if(holding OR restrain* OR "rage reduc*" OR rebirth*)) AND ((mainsubject("attachment disorders") OR NOFT(((attachment NEAR/2 (disorder* OR problem* OR style* OR pattern*)) OR (attachment NEAR/2 (behavior* OR behavior* OR ambivalen* OR avoidance OR diffuse OR organi* OR disorgani* OR disrupt* OR abnormal* OR disinhib* OR inhib*)) OR (attachment NEAR/2 (disorienta* OR reactive OR anxious* OR disturb* OR relation*)) OR (attachment NEAR/2 (interven* OR insecure* OR secure OR security OR early OR theory OR theories))))) AND (MAINSUBJECT("Children" OR "Infants" OR "Adolescents" OR "Dyads" OR "Parents") OR MAINSUBJECT("Child neglect" OR "Child abuse" OR "Foster care" OR "Foster children" OR "Adoption" OR "Adopted children" OR "Adoptive parents") OR (noft(child* OR infant* OR infancy OR preschool* OR "pre school*" OR baby OR babies OR pediat* OR paediat*) OR noft(boy OR boys OR girl OR girls OR schoolchild* OR adolescen* OR juvenile* OR youth* OR teenage* OR youngster* OR "young people" OR "young person" OR "young persons" OR "young adult*" OR "early adult*")) OR noft(parent* OR mother* OR maternal* OR mum* OR father* OR paternal* OR dad* OR dyad* OR

attunement) OR noft(representation* NEAR/2 model*) OR noft(neglect* OR abuse OR abused OR abusive OR maltreat* OR mistreat* OR foster* OR adopt*))Limits applied

Embase via OVID

Database: Embase <1996 to 2020 Week 22>, 3rd June 2020, 245 records

- 1 (attachment adj2 (disorder\$1 or problem\$1 or style\$1 or pattern\$1)).ti,ab. (3585)
- 2 (attachment adj2 (behavio?r\$ or ambivalen\$ or avoidant or diffuse or organi\$ or disorgani\$ or disrupt\$ or abnormal\$ or disinhib\$ or inhib\$)).ti,ab. (3753)
- 3 (attachment adj2 (disorienta\$ or reactive or anxious\$ or disturb\$ or relation\$)).ti,ab. (2457)
- 4 (attachment adj2 (interven\$ or insecure\$ or secure or security or early or theory or theories)).ti,ab. (5186)
- 5 1 or 2 or 3 or 4 (10344)
- 6 Intervention study/ (44962)
- 7 Play Therapy/ (1145)
- 8 (theraplay or (play adj3 (therap\$ or program or intervention\$))).ti,ab. (4083)
- 9 (watch adj2 wait adj2 wonder).ti,ab. (7)
- 10 (circle adj3 security).ti,ab. (35)
- 11 ((preschool\$ or pre school\$ or child\$ or infant\$) adj3 (psychotherap\$ or psychotherap\$)).ti,ab. (1210)
- 12 ((interaction or interactive) adj3 guidance).ti,ab. (277)
- 13 (biobehavio\$ or bio behavio\$).ti,ab. (2338)
- 14 ((New Orleans adj3 (intervention\$ or program\$ or therap\$)) or (tulane adj3 (team\$ or program\$ or intervention\$ or therap\$))).ti,ab. (58)
- 15 (((parent\$ or child\$) adj2 game\$) or PCG).ti,ab. (3837)
- 16 ((manipulat\$ adj3 respons\$) or (Leiden adj3 (program\$ or intervention\$ or therap\$))).ti,ab. (2557)
- 17 ((parent\$ or mother\$ or father\$ or dyad\$) adj3 (psychotherap\$ or psychotherap\$)).ti,ab. (434)
- 18 (floortime or (floor adj2 time)).ti,ab. (118)
- 19 Videorecording/ (81325)
- 20 (modif\$ adj3 guidance).ti,ab. (243)
- 21 (video\$ or VIPP or VIG).ti,ab. (161763)
- 22 ((clinician\$ adj3 exposure\$) or CAVES).ti,ab. (1682)
- 23 (Tamars adj3 Children\$).ti,ab. (1)
- 24 (Florida adj3 (program\$ or intervention\$ or therap\$)).ti,ab. (358)
- 25 (psychodynamic adj3 psychotherap\$).ti,ab. (1562)
- 26 ((story or stories) adj3 stem\$).ti,ab. (122)
- 27 ((home or hospital or family) adj3 visit\$).ti,ab. (30308)
- 28 Project CARE.ti,ab. (47)
- 29 Orion Project.ti,ab. (3)
- 30 ((violent adj3 resistan\$) or (nonviolent adj3 resistan\$) or NVR).ti,ab. (261)
- 31 (cues adj3 clues).ti,ab. (15)
- 32 (mellow adj3 (baby or babies or parent\$)).ti,ab. (17)
- 33 solihull.ti,ab. (102)
- 34 ((self adj2 regulat\$) or ARC).ti,ab. (41645)
- 35 (personal adj3 contact\$).ti,ab. (1792)
- 36 ((baby or babies or infant\$) adj2 (carrier\$ or carry\$)).ti,ab. (544)
- 37 (bath or bathe or bathing or massag\$ or tickl\$).ti,ab. (47386)

- 38 (holding or restrain\$ or rage reduc\$ or rebirth\$).ti,ab. (73685)
- 39 ((feed\$ or food or water) adj3 (therap\$ or program or intervention\$)).ti,ab. (12094)
- 40 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 (435348)
- 41 5 and 40 (813)
- 42 Animal/ or Animal Experiment/ or Nonhuman/ (5732631)
- 43 (rat or rats or mouse or mice or murine or rodent or rodents or hamster or hamsters or pig or pigs or porcine or rabbit or rabbits or animal or animals or dogs or dog or cats or cow or bovine or sheep or ovine or monkey or monkeys).ti,ab,sh. (4113987)
- 44 42 or 43 (6387549)
- 45 exp Human/ or Human Experiment/ (16571502)
- 46 44 not (44 and 45) (4299000)
- 47 (editorial or letter or note).pt. (2075343)
- 48 41 not (46 or 47) (785)
- 49 child/ (1303698)
- 50 infant/ (423515)
- 51 adolescent/ (1162419)
- 52 (child\$ or infant\$ or infancy or preschool\$ or pre school\$ or baby or babies or pediat\$ or paediat\$).ti,ab. (1819364)
- 53 (boy or boys or girl or girls).ti,ab. (244140)
- 54 (schoolchild\$ or adolescen\$ or juvenile\$ or youth\$ or teenage\$ or youngster\$).ti,ab. (456314)
- 55 (young people or young person or young persons or young adult\$ or early adult\$).ti,ab. (147101)
- 56 exp parent/ (208469)
- 57 exp child parent relation/ (65020)
- 58 (parent\$ or mother\$ or maternal\$ or mum\$ or father\$ or paternal\$ or dad\$).ti,ab. (1237206)
- 59 dyad\$.ti,ab. (22127)
- 60 (attunement or (representation\$ adj2 model\$)).ti,ab. (1929)
- 61 child abuse/ or child neglect/ (22881)
- 62 foster care/ (3573)
- 63 adoption/ or adopted child/ (12333)
- 64 (neglect\$ or abuse or abused or abusive or maltreat\$ or mistreat\$).ti,ab. (197716)
- 65 (foster\$ or adopt\$).ti,ab. (322678)
- 66 or/49-65 (4167014)
- 67 48 and 66 (661)
- 68 ("201600" or "201700" or "201800" or "201900").em. (7315939)
- 69 2020\$.em. (1337584)
- 70 68 or 69 (8653523)
- 71 67 and 70 (245)

ERIC via EBSCO**Searchdate=3rd June 2020, 95 records**

S12 S10 AND S11

Limiters - Date Published: 20160101-20201231

Results (95)

S11 S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9

Results (112,083)

S10 S1 OR S2

Results (4,025)

S9 TI (bath or bathe or bathing or massag* or tickl*) OR AB (bath or bathe or bathing or massag* or tickl*) OR TI ((baby or babies or infant*) N2 (carrier* or carry*)) OR AB ((baby or babies or infant*) N2 (carrier* or carry*))

Results (683)

S8 TI self N2 regulat* OR AB self N2 regulat* OR TI solihull OR AB solihull OR TI (mellow N3 (baby or babies or parent*)) OR AB (mellow N3 (baby or babies or parent*)) OR TI cues N3 clues OR AB cues N3 clues OR TI ((feed* or food or water) N3 (therap* or program* or intervention*)) OR AB ((feed* or food or water) N3 (therap* or program* or intervention*)) OR TI ((holding or restrain* or "rage reduc*" or rebirth*)) OR AB ((holding or restrain* or "rage reduc*" or rebirth*))

Results (16,863)

S7 TI ((nonviolent N3 resistan*) or NVR) OR AB ((nonviolent N3 resistan*) or NVR) OR TI violent N3 resistan* OR AB violent N3 resistan* OR TI ("Orion Project" or "project care") OR AB ("Orion Project" or "project care") OR TI ((home or hospital or family) N3 visit*) OR AB ((home or hospital or family) N3 visit*) OR TI ((story or stories) N3 stem*) OR AB ((story or stories) 3 stem*) OR TI personal N3 contact* OR AB personal N3 contact*

Results (3,261)

S6 TI caves OR AB CAVES OR TI psychodynamic N3 psychotherap* OR AB psychodynamic N3 psychotherap* OR TI (Florida N3 (program* or intervention* or therap*)) OR AB (Florida N3 (program* or intervention* or therap*)) OR TI Tamars N3 Children* OR AB Tamars N3 Children* OR TI clinician* N3 exposure* OR AB clinician* N3 exposure* OR TI (video* or VIPP or VIG) OR AB (video* or VIPP or VIG)

Results (36,251)

S5 TI modif* N3 guidance OR AB modif* N3 guidance OR TI (Leiden N3 (program* or intervention* or therap*)) OR AB (Leiden N3 (program* or intervention* or therap*)) OR TI manipul* N3 respons* OR AB manipul* N3 respons* OR TI (floortime or (floor N2 time)) OR AB (floortime or (floor N2 time)) OR TI ((parent* or child*) N2 game*) OR AB ((parent* or child*) N2 game*) OR TI ((parent* or mother* or father* or dyad*) N3 (psychotherap* or "psycho therap*")) OR AB ((parent* or mother* or father* or dyad*) N3 (psychotherap* or "psycho therap*")) Show Less

Results (1,280)

S4 TI ("New Orleans" N3 (intervention* or program* or therap*)) OR AB ("New Orleans" N3 (intervention* or program* or therap*)) OR TI (tulane N3 (team* or program* or intervention* or therap*)) OR AB (tulane N3 (team* or program* or intervention* or therap*)) OR TI ((biobehavio* or "bio behavio*")) OR AB ((biobehavio* or "bio behavio*")) OR TI ((interaction or interactive) N3 guidance) OR AB ((interaction or interactive) N3 guidance) OR TI (watch and wait) OR AB watch N2 wait OR TI ((preschool* or "pre school*" or child* or infant*) N3 (psychotherap* or "psycho therap*")) OR AB ((preschool* or "pre school*" or child* or infant*) N3 (psychotherap* or "psycho therap*")) Show Less

Results (571)

S3 SU intervention OR SU Play Therapy OR TI (play N3 (therap* or program* or intervention*)) OR AB (play N3 (therap* or program* or intervention*)) OR TI theraplay OR AB theraplay OR TI circle N3 security OR AB circle N3 security
Results (57,757)

S2 TI (attachment N2 (disorder* OR problem* OR style* OR pattern*)) OR AB (attachment N2 (disorder* OR problem* OR style* OR pattern*)) OR TI (attachment N2 (behavior* OR behaviour* OR ambivalen* OR avoidant OR diffuse OR organi* OR disorgani* OR disrupt* OR abnormal* disinhib* OR inhib*)) OR AB (attachment N2 (behavior* OR behaviour* OR ambivalen* OR avoidant OR diffuse OR organi* OR disorgani* OR disrupt* OR abnormal* disinhib* OR inhib*)) OR TI (attachment N2 (disorienta* OR reactive OR anxious* OR disturb* OR relation* OR interven* or insecure* OR secure OR security OR early OR theory OR theories)) OR) OR AB (attachment N2 (disorienta* OR reactive OR anxious* OR disturb* OR relation* OR interven* or insecure* OR secure OR security OR early OR theory OR theories)) OR) Show Less

Results (2,212)

S1 SU attachment behavior
Results (3,675)

MEDLINE via OVID

3rd June 20202, 133 records

Database: Ovid MEDLINE(R) ALL <1946 to June 02, 2020>

- 1 Reactive Attachment Disorder/ (563)
- 2 (attachment adj2 (disorder\$1 or problem\$1 or style\$1 or pattern\$1)).ti,ab. (2837)
- 3 (attachment adj2 (behavio?r\$ or ambivalen\$ or avoidant or diffuse or organi\$ or disorgani\$ or disrupt\$ or abnormal\$ or disinhib\$ or inhib\$)).ti,ab. (3988)
- 4 (attachment adj2 (disorienta\$ or reactive or anxious\$ or disturb\$ or relation\$)).ti,ab. (2128)
- 5 (attachment adj2 (interven\$ or insecure\$ or secure or security or early or theory or theories)).ti,ab. (4350)
- 6 1 or 2 or 3 or 4 or 5 (9768)
- 7 intervention stud\$.ti,ab. (19838)
- 8 Play Therapy/ (1131)
- 9 (theraplay or (play adj3 (therap\$ or program or intervention\$))).ti,ab. (3301)
- 10 (watch adj2 wait adj2 wonder).ti,ab. (3)
- 11 (circle adj3 security).ti,ab. (27)
- 12 ((preschool\$ or pre school\$ or child\$ or infant\$) adj3 (psychotherap\$ or psychotherap\$)).ti,ab. (1025)
- 13 ((interaction or interactive) adj3 guidance).ti,ab. (219)
- 14 (biobehavio\$ or bio behavio\$).ti,ab. (2092)
- 15 ((New Orleans adj3 (intervention\$ or program\$ or therap\$)) or (tulane adj3 (team\$ or program\$ or intervention\$ or therap\$))).ti,ab. (60)
- 16 (((parent\$ or child\$) adj2 game\$) or PCG).ti,ab. (3215)
- 17 ((manipulat\$ adj3 respons\$) or (Leiden adj3 (program\$ or intervention\$ or therap\$))).ti,ab. (2765)
- 18 ((parent\$ or mother\$ or father\$ or dyad\$) adj3 (psychotherap\$ or psychotherap\$)).ti,ab. (360)
- 19 (floortime or (floor adj2 time)).ti,ab. (78)
- 20 Videotape Recording/ (11368)
- 21 (modif\$ adj3 guidance).ti,ab. (183)

- 22 (video\$ or VIPP or VIG).ti,ab. (123992)
- 23 ((clinician\$ adj3 exposure\$) or CAVES).ti,ab. (1733)
- 24 (Tamars adj3 Children\$).ti,ab. (1)
- 25 (Florida adj3 (program\$ or intervention\$ or therap\$)).ti,ab. (354)
- 26 (psychodynamic adj3 psychotherap\$).ti,ab. (1189)
- 27 ((story or stories) adj3 stem\$).ti,ab. (109)
- 28 ((home or hospital or family) adj3 visit\$).ti,ab. (22259)
- 29 Project CARE.ti,ab. (32)
- 30 Orion Project.ti,ab. (7)
- 31 ((violent adj3 resistan\$) or (nonviolent adj3 resistan\$) or NVR).ti,ab. (159)
- 32 (cues adj3 clues).ti,ab. (18)
- 33 (mellow adj3 (baby or babies or parent\$)).ti,ab. (12)
- 34 solihull.ti,ab. (81)
- 35 ((self adj2 regulat\$) or ARC).ti,ab. (37859)
- 36 ((baby or babies or infant\$) adj2 (carrier\$ or carry\$)).ti,ab. (516)
- 37 (bath or bathe or bathing or massag\$ or tickl\$).ti,ab. (50485)
- 38 (holding or restrain\$ or rage reduc\$ or rebirth\$).ti,ab. (74450)
- 39 ((feed\$ or food or water) adj3 (therap\$ or program or intervention\$)).ti,ab. (10295)
- 40 (personal adj3 contact\$).ti,ab. (1662)
- 41 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 (357294)
- 42 6 and 41 (627)
- 43 animals/ not (animals/ and humans/) (4670858)
- 44 (letter or editorial or comment or news or newspaper article).pt. (2052048)
- 45 42 not (43 or 44) (605)
- 46 exp Child/ (1897980)
- 47 exp Infant/ (1132890)
- 48 Adolescent/ (2014025)
- 49 (child\$ or infant\$ or infancy or preschool\$ or pre school\$ or baby or babies or pediat\$ or paediat\$).ti,ab. (1855075)
- 50 (boy or boys or girl or girls).ti,ab. (227484)
- 51 (schoolchild\$ or adolescen\$ or juvenile\$ or youth\$ or teenage\$ or youngster\$).ti,ab. (420247)
- 52 (young people or young person or young persons or young adult\$ or early adult\$).ti,ab. (126540)
- 53 exp Parents/ (111724)
- 54 exp Parent-Child Relations/ or Parenting/ (65529)
- 55 (parent\$ or mother\$ or maternal\$ or mum\$ or father\$ or paternal\$ or dad\$).ti,ab. (998442)
- 56 dyad\$.ti,ab. (21512)
- 57 (attunement or (representation\$ adj2 model\$)).ti,ab. (1837)
- 58 Child Abuse/ (22031)
- 59 Foster Home Care/ (3602)
- 60 Adoption/ (4783)
- 61 (neglect\$ or abuse or abused or abusive or maltreat\$ or mistreat\$).ti,ab. (185849)
- 62 (foster\$ or adopt\$).ti,ab. (284627)
- 63 or/46-62 (5107971)

- 64 45 and 63 (518)
 65 (201609\$ or 2017\$ or 2018\$ or 2019\$ or 2020\$).dt. (4489990)
 66 64 and 65 (133)

PsycINFO via OVID

Search date=3rd June 2020, 449 records

Database: APA PsycInfo <2002 to May Week 4 2020>

- 1 Attachment Behavior/ (15882)
- 2 Attachment Disorders/ (653)
- 3 attachment theory/ (1830)
- 4 (attachment adj2 (disorder\$1 or problem\$1 or style\$1 or pattern\$1)).ti,ab. (6175)
- 5 (attachment adj2 (behavio?r\$ or ambivalen\$ or avoidant or diffuse or organi\$ or disorgani\$ or disrupt\$ or abnormal\$ or disinhib\$ or inhib\$)).ti,ab. (3384)
- 6 (attachment adj2 (disorienta\$ or reactive or anxious\$ or disturb\$ or relation\$)).ti,ab. (5122)
- 7 (attachment adj2 (interven\$ or insecure\$ or secure or security or early or theory or theories)).ti,ab. (10461)
- 8 1 or 2 or 3 or 4 or 5 or 6 or 7 (22296)
- 9 exp Intervention/ (97067)
- 10 Play Therapy/ (2311)
- 11 (theraplay or (play adj3 (therap\$ or program or intervention\$))).ti,ab. (3185)
- 12 (watch adj2 wait adj2 wonder).ti,ab. (17)
- 13 (circle adj3 security).ti,ab. (55)
- 14 ((preschool\$ or pre school\$ or child\$ or infant\$) adj3 (psychotherap\$ or psycho therap\$)).ti,ab. (2247)
- 15 ((interaction or interactive) adj3 guidance).ti,ab. (105)
- 16 (biobehavio\$ or bio behavio\$).ti,ab. (1523)
- 17 ((New Orleans adj3 (intervention\$ or program\$ or therap\$)) or (tulane adj3 (team\$ or program\$ or intervention\$ or therap\$))).ti,ab. (24)
- 18 (((parent\$ or child\$) adj2 game\$) or PCG).ti,ab. (688)
- 19 ((manipulat\$ adj3 respons\$) or (Leiden adj3 (program\$ or intervention\$ or therap\$))).ti,ab. (784)
- 20 ((parent\$ or mother\$ or father\$ or dyad\$) adj3 (psychotherap\$ or psycho therap\$)).ti,ab. (800)
- 21 (floortime or (floor adj2 time)).ti,ab. (69)
- 22 ((manipulat\$ adj3 respons\$) or (Leiden adj3 (program\$ or intervention\$ or therap\$))).ti,ab. (784)
- 23 (modif\$ adj3 guidance).ti,ab. (30)
- 24 (video\$ or VIPP or VIG).ti,ab. (44819)
- 25 ((clinician\$ adj3 exposure\$) or CAVES).ti,ab. (170)
- 26 (Tamars adj3 Children\$).ti,ab. (1)
- 27 (Florida adj3 (program\$ or intervention\$ or therap\$)).ti,ab. (192)
- 28 exp Psychodynamic Psychotherapy/ (3181)
- 29 (psychodynamic adj3 psychotherap\$).ti,ab. (2259)
- 30 ((story or stories) adj3 stem\$).ti,ab. (181)
- 31 ((home or hospital or family) adj3 visit\$).ti,ab. (4818)
- 32 Project CARE.ti,ab. (19)
- 33 Orion Project.ti,ab. (0)
- 34 ((violent adj3 resistan\$) or (nonviolent adj3 resistan\$) or NVR).ti,ab. (129)
- 35 (cues adj3 clues).ti,ab. (19)

- 36 (mellow adj3 (baby or babies or parent\$)).ti,ab. (11)
- 37 solihull.ti,ab. (23)
- 38 ((self adj2 regulat\$) or ARC).ti,ab. (19715)
- 39 (personal adj3 contact\$).ti,ab. (764)
- 40 ((baby or babies or infant\$) adj2 (carrier\$ or carry\$)).ti,ab. (131)
- 41 (bath or bathe or bathing or massag\$ or tickl\$).ti,ab. (3437)
- 42 (holding or restrain\$ or rage reduc\$ or rebirth\$).ti,ab. (18233)
- 43 ((feed\$ or food or water) adj3 (therap\$ or program or intervention\$)).ti,ab. (2752)
- 44 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 (196253)
- 45 8 and 44 (2550)
- 46 (comment reply or editorial or letter or reprint or "review book" or "review media" or "review software other").dt. (217935)
- 47 (animal or animals or rat or rats or mouse or mice or hamster or hamsters or dog or dogs or cat or cats or bovine or sheep or ovine or pig or pigs).ab,ti,id,de. (210874)
- 48 45 not (46 or 47) (2284)
- 49 (infancy 2 23 mo or neonatal birth 1 mo or preschool age 2 5 yrs).ag. (98745)
- 50 (adolescence 13 17 yrs or childhood birth 12 yrs or school age 6 12 yrs).ag. (458220)
- 51 (child\$ or infant\$ or infancy or preschool\$ or pre school\$ or baby or babies or pediat\$ or paediat\$).ti,ab. (442296)
- 52 (boy or boys or girl or girls).ti,ab. (57123)
- 53 (schoolchild\$ or adolescen\$ or juvenile\$ or youth\$ or teenage\$ or youngster\$).ti,ab. (219389)
- 54 (young people or young person or young persons or young adult\$ or early adult\$).ti,ab. (63420)
- 55 exp Parents/ (71302)
- 56 exp Parenting/ (64293)
- 57 (parent\$ or mother\$ or maternal\$ or mum\$ or father\$ or paternal\$ or dad\$).ti,ab. (241217)
- 58 Dyads/ (3831)
- 59 dyad\$.ti,ab. (22961)
- 60 (attunement or (representation\$ adj2 model\$)).ti,ab. (2253)
- 61 exp Child Neglect/ or exp Child Abuse/ (17921)
- 62 exp Foster Children/ or exp Foster Care/ or exp Foster Parents/ (5007)
- 63 exp "Adoption (Child)"/ or exp Adoptive Parents/ (3463)
- 64 (neglect\$ or abuse or abused or abusive or maltreat\$ or mistreat\$).ti,ab. (106346)
- 65 (foster\$ or adopt\$).ti,ab. (109722)
- 66 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 or 64 or 65 (911796)
- 67 48 and 66 (1846)
- 68 (201609\$ or 2017\$ or 2018\$ or 2019\$ or 2020\$).up. (616131)
- 69 67 and 68 (449)

Social Care Online

<https://www.scie-socialcareonline.org.uk/>

Search date=4th June 2020, 9 records

Attachment named interventions HTA update [

- AllFields:"play therapy"
- OR AllFields:'theraplay'
- OR AllFields:"circle of security"
- OR AllFields:'psychotherapy'
- OR AllFields:'biobehavior'
- OR AllFields:'biobehaviour'
- OR AllFields:"new orleans"
- OR AllFields:'floortime'
- OR AllFields:"floor time"
- OR AllFields:'leiden'
- OR AllFields:'solihull'
- OR AllFields:'video'
- OR AllFields:"psychodynamic psychotherapy"
- OR AllFields:'cues'
- OR AllFields:'mellow'
- AND PublicationYear:'2016 2020'
- AND SubjectTerms:"attachment" including **this term only**

Social Policy & Practice via OVID

Search date=3rd June 2020, 18 records

Database: Social Policy and Practice <202004>

- 1 attachment disorder.de. (0)
- 2 (attachment adj2 (disorder\$1 or problem\$1 or style\$1 or pattern\$1)).ti,ab. (858)
- 3 (attachment adj2 (behavio?r\$ or ambivalen\$ or avoidant or diffuse or organi\$ or disorgani\$ or disrupt\$ or abnormal\$ or disinhib\$ or inhib\$)).ti,ab. (472)
- 4 (attachment adj2 (disorienta\$ or reactive or anxious\$ or disturb\$ or relation\$)).ti,ab. (611)
- 5 (attachment adj2 (interven\$ or insecure\$ or secure or security or early or theory or theories)).ti,ab. (1642)
- 6 1 or 2 or 3 or 4 or 5 (2450)
- 7 Intervention programmes.de. (0)
- 8 Play Therapy.de. (516)
- 9 (theraplay or (play adj3 (therap\$ or program or intervention\$))).ti,ab. (487)
- 10 (watch adj2 wait adj2 wonder).ti,ab. (1)
- 11 (circle adj3 security).ti,ab. (17)
- 12 ((preschool\$ or pre school\$ or child\$ or infant\$) adj3 (psychotherap\$ or psycho therap\$)).ti,ab. (346)
- 13 ((interaction or interactive) adj3 guidance).ti,ab. (42)
- 14 (biobehavio\$ or bio behavio\$).ti,ab. (55)
- 15 ((New Orleans adj3 (intervention\$ or program\$ or therap\$)) or (tulane adj3 (team\$ or program\$ or intervention\$ or therap\$))).ti,ab. (22)
- 16 (((parent\$ or child\$) adj2 game\$) or PCG).ti,ab. (107)
- 17 ((manipulat\$ adj3 respons\$) or (Leiden adj3 (program\$ or intervention\$ or therap\$))).ti,ab. (7)
- 18 ((parent\$ or mother\$ or father\$ or dyad\$) adj3 (psychotherap\$ or psycho therap\$)).ti,ab. (138)

- 19 (floortime or (floor adj2 time)).ti,ab. (8)
 20 (modif\$ adj3 guidance).ti,ab. (0)
 21 (video\$ or VIPP or VIG).ti,ab. (3223)
 22 ((clinician\$ adj3 exposure\$) or CAVES).ti,ab. (5)
 23 (Tamars adj3 Children\$).ti,ab. (2)
 24 (Florida adj3 (program\$ or intervention\$ or therap\$)).ti,ab. (29)
 25 (psychodynamic adj3 psychotherap\$).ti,ab. (127)
 26 ((story or stories) adj3 stem\$).ti,ab. (38)
 27 ((home or hospital or family) adj3 visit\$).ti,ab. (1862)
 28 Project CARE.ti,ab. (40)
 29 Orion Project.ti,ab. (0)
 30 ((violent adj3 resistan\$) or (nonviolent adj3 resistan\$) or NVR).ti,ab. (42)
 31 (cues adj3 clues).ti,ab. (0)
 32 (mellow adj3 (baby or babies or parent\$)).ti,ab. (13)
 33 solihull.ti,ab. (234)
 34 ((self adj2 regulat\$) or ARC).ti,ab. (685)
 35 (personal adj3 contact\$).ti,ab. (155)
 36 ((baby or babies or infant\$) adj2 (carrier\$ or carry\$)).ti,ab. (3)
 37 (bath or bathe or bathing or massag\$ or tickl\$).ti,ab. (810)
 38 (holding or restrain\$ or rage reduc\$ or rebirth\$).ti,ab. (2791)
 39 ((feed\$ or food or water) adj3 (therap\$ or program or intervention\$)).ti,ab. (202)
 40 or/7-39 (11297)
 41 6 and 40 (227)
 42 (child\$ or infant\$ or infancy or preschool\$ or pre school\$ or baby or babies or pediat\$ or paediat\$).ti,ab,de. (148842)
 43 (boy or boys or girl or girls).ti,ab,de. (6964)
 44 (schoolchild\$ or adolescen\$ or juvenile\$ or youth\$ or teenage\$ or youngster\$).ti,ab,de. (39074)
 45 (young people or young person or young persons or young adult\$ or early adult\$).ti,ab,de. (62029)
 46 (parent\$ or mother\$ or maternal\$ or mum\$ or father\$ or paternal\$ or dad\$).ti,ab,de. (60240)
 47 dyad\$.ti,ab,de. (1538)
 48 (attunement or (representation\$ adj2 model\$)).ti,ab,de. (162)
 49 (neglect\$ or abuse or abused or abusive or maltreat\$ or mistreat\$).ti,ab,de. (45876)
 50 (foster\$ or adopt\$).ti,ab,de. (32694)
 51 or/42-50 (216651)
 52 41 and 51 (212)
 53 ("2016" or "2017" or "2018" or "2019" or "2020").dp. (42591)
 54 52 and 53 (18)

Social Services Abstracts via Proquest

Search date=4th June 2020, 8 records

((if(attachment NEAR/2 (disorder* OR problem* OR style* OR pattern*)) OR if(attachment NEAR/2 (behavior* OR behavior* OR ambivalen* OR avoidance OR diffuse OR organi* OR disorgani* OR disrupt* OR abnormal* OR disinhib* OR inhib*)) OR if(attachment NEAR/2 (disorienta* OR reactive OR anxious* OR disturb* OR relation*)) OR if(attachment NEAR/2 (interven* OR insecure* OR secure OR security OR early OR theory OR theories)))) AND (su("adolescents" OR "children" OR

"infants") OR (if(child* OR infant* OR infancy OR preschool* OR "pre school*" OR baby OR babies OR pediat* OR paediat*) OR if(boy OR boys OR girl OR girls) OR if(schoolchild* OR adolescen* OR juvenile* OR youth* OR teenage* OR youngster*) OR if("young people" OR "young person" OR "young persons" OR "young adult*" OR "early adult*")) OR mainsubject(Dyads OR Child Neglect OR Child Abuse OR Foster Care OR Foster Children OR Adoption OR Adopted Children) OR (if(parent* OR mother* OR maternal* OR mum* OR father* OR paternal* OR dad* OR dyad* OR attunement) OR if(representation* NEAR/2 model*) OR if(neglect* OR abuse OR abused OR abusive OR maltreat* OR mistreat* OR foster* OR adopt*)) AND pd(20160101-20200531)) AND (mainsubject.Exact("intervention") OR mainsubject.Exact("psychodynamics") OR (if(theraplay) OR if(play NEAR/3 (therap* OR program OR intervention*)) OR if((preschool* OR "pre school*" OR child* OR infant*) NEAR/3 (psychotherap* OR "psycho therap*")) OR if(watch NEAR/2 wait) OR ((interaction OR interactive) NEAR/3 guidance)) OR (if(biobehavio* OR "bio behavio*") OR if("New Orleans" NEAR/3 (intervention* OR program* OR therap*)) OR if(tulane NEAR/3 (team* OR program* OR intervention* OR therap*)) OR if((parent* OR mother* OR father* OR dyad*) NEAR/3 (psychotherap* OR "psycho therap*")) OR if((parent* OR child*) NEAR/2 game*)) OR (if(floodtide OR (floor NEAR/2 time)) OR if(manipulat* NEAR/3 respons*) OR if(Leiden NEAR/3 (program* OR intervention* OR therap*)) OR if((preschool* OR "pre school*" OR child* OR infant*) NEAR/3 (psychotherap* OR "psycho therap*")) OR if(watch NEAR/2 wait) OR if((interaction OR interactive) NEAR/3 guidance) OR if(modif* NEAR/3 guidance) OR if(video* OR vips OR vie)) OR (if((clinician* NEAR/3 exposure*) OR CAVES) OR if(tamara NEAR/3 Children*) OR if(Florida NEAR/3 (program* OR intervention* OR therap*)) OR if(psychodynamic NEAR/3 psychotherap*) OR if((story OR stories) NEAR/3 stem*) OR if((home OR hospital OR family) NEAR/3 visit*) OR if("Project CARE" OR "Orion Project") OR if(violent NEAR/3 resistan*) OR (if((nonviolent NEAR/3 resistan*) OR NVR) OR if(cues NEAR/3 clues) OR if(mellow NEAR/3 (baby OR babies OR parent*)) OR if(solihull OR bath OR bathe OR bathing OR massag* OR tickl*) OR if(self NEAR/2 regulat*) OR if(personal NEAR/3 contact*) OR if((baby OR babies OR infant*) NEAR/2 (carrier* OR carry*)) OR if((feed* OR food OR water) NEAR/3 (therap* OR program OR intervention*)) OR if(holding OR restrain* OR "rage reduc*" OR rebirth*)))

Web of Science

(Science Citation Index, Social Science Citation Index, Conference Proceedings Citation Index – Science, Conference Proceedings Citation Index – Social Science, Humanities)

Search date=3rd June 2020, 364 records

10 364 #8 NOT #9

Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=2016-2020

9 783,615 TOPIC: (rat or rats or mouse or mice or murine or hamster or hamsters or animal or animals or dogs or dog or pig or pigs or cats or bovine or cow or sheep or ovine or porcine or monkey)

Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=2016-2020

8 372 #7 AND #6

Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=2016-2020

7 1,091,074 TOPIC: (child* or infant* or infancy or preschool* or "pre school*" or baby or babies or pediat* or paediat*) OR TOPIC: (boy or boys or girl or girls) OR TOPIC:

(schoolchild* or adolescen* or juvenile* or youth* or teenage* or youngster*) OR TOPIC ("young people" or "young person" or "young persons" or "young adult*" or "early adult*") OR TOPIC:

(parent* or mother* or maternal* or mum* or father* or paternal* or dad*) OR TOPIC: (dyad*) OR TOPIC: (attunement or (representation* NEAR/2 model*)) OR TOPIC: (neglect* or abuse or abused or abusive or maltreat* or mistreat*) OR TOPIC: (foster* or adopt*)

Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=2016-2020

6 471 #5 AND #1

Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=2016-2020

5 302,370 #4 OR #3 OR #2

Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=2016-2020

4 186,209 TOPIC: (solihull) OR TOPIC: (self NEAR/2 re REGulat*) OR TOPIC: (personal NEAR/3 contact*) OR TOPIC: ((baby or babies or infant*) NEAR/2 (carrier* or carry*))

OR TOPIC: (bath or bathe or bathing or massag* or tickl*) OR TOPIC: (holding or restrain* or "rage reduc*" or rebirth*) OR TOPIC: ((feed* or food or water) NEAR/3 (therap* or program or intervention*))

Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=2016-2020

3 106,600 TOPIC: (floortime or (floor NEAR/2 time)) OR TOPIC: (manipulate* NEAR/3 respons*) OR TOPIC: (Leiden NEAR/3 (program* or intervention* or therap*))

OR TOPIC: ((modif* NEAR/3 guidance)) OR TOPIC: ((video* or VIPP or VIG))

OR TOPIC: (clinician* NEAR/3 exposure*) OR TOPIC: (caves) OR TOPIC:

(Tamars)

OR TOPIC: (Florida NEAR/3 (program* or intervention* or therap*)) OR TOPIC: (psychodynamic NEAR/3 psychotherap*) OR TOPIC: ((story or stories) NEAR/3 stem*)

OR TOPIC: ((home or hospital or family) NEAR/3 visit*) OR TOPIC: ("Project CARE") OR TOPIC: ("Orion Project") OR TOPIC: ((violent NEAR/3 resistan*) or (nonviolent NEAR/3 resistan*) or NVR)

OR TOPIC: (cues NEAR/3 clues) OR TOPIC: (mellow NEAR/3 (baby or babies or parent*))

Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=2016-2020

2 13,403 TOPIC: (intervention NEAR/2 program*) OR TOPIC: (watch NEAR/2 wait) OR TOPIC: (theraplay or (play NEAR/3 (therap* or program* or intervention*)) OR

TOPIC: (circle NEAR/3 security) OR TOPIC: ((preschool* or "pre school*" or child* or infant*) NEAR/3 (psychotherap* or "psycho therap*")) OR TOPIC: ((interaction or interactive) NEAR/3 guidance)

OR TOPIC: (biobehavio* or "bio behavio*") OR TOPIC: ("New Orleans" NEAR/3 (intervention* or program* or therap*) or (tulane NEAR/3 (team* or program* or intervention* or therap*))

OR TOPIC: ((parent* or mother* or father* or dyad*) NEAR/3 (psychotherapy* or "psycho therap*")) OR TOPIC: (((parent* or child*) NEAR/2 game*))

Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=2016-2020

1 5,023 TOPIC: ((attachment NEAR/2 (disorder\$ or problem\$ or style\$ or pattern\$)) OR TOPIC: ((attachment NEAR/2 (behavior\$r* or ambivalen* or avoidant or diffuse or organi* or disorgani* or disrupt* or abnormal* or disinhib* or inhib*))

OR TOPIC: ((attachment NEAR/2 (disorienta* or reactive or anxious* or disturb* or relation*))) OR TOPIC: ((attachment NEAR/2 (intervene* or insecure* or secure or security or early or theory or theories)))
 Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=2016-2020

Review 2

These searches include searches based on the top ten named interventions and their acronyms. There is an additional search based on similar terms used in the literature that were identified from the first searches.

ASSIA Proquest 28th May 2020

148 records

S1

noft("Individual Child Psychotherapy") OR noft("Dyadic Developmental Psychotherapy")

16

S2

noft(Theraplay) OR noft("Video Interaction Guidance") OR noft(VIG NEAR/6 attachment)

27

S3

noft(circle near/6 security*) OR noft(COS-P near/6 attachment) OR noft(VIG NEAR/6 attachment) OR noft("Circle of Security™") OR noft("Circle-of Security-Intensive intervention") OR noft("Circle-of-Security-Parenting")

11

S4

noft(Watch NEAR/2 Wait NEAR/2 Wonder) OR noft("Video Feedback to Promote Positive Parenting") OR noft(VIPP or VIPP-AUTI or VIPP-FC or VIPP-SD or VIPP-TWINS or VIPP-V) OR noft("Attachment and Biobehavioural catch up") OR noft(ABC NEAR/2 intervention*) OR noft("Biobehavioural catch up") OR noft("Biobehavioral catch up") OR noft(ABC* NEAR/6 attachment)

47

S5

noft("Parent-Infant Psychotherapy") OR noft("Parent Infant Psychotherapy") OR noft("Child-Parent Psychotherapy") OR noft("Child Parent Psychotherapy")

50

S6

(noft("Individual Child Psychotherapy") OR noft("Dyadic Developmental Psychotherapy")) OR (noft(Theraplay) OR noft("Video Interaction Guidance") OR noft(VIG NEAR/6 attachment)) OR (noft(circle NEAR/6 security*) OR noft(COS-P NEAR/6 attachment) OR noft(VIG NEAR/6 attachment) OR noft("Circle of Security™") OR noft("Circle-of Security-Intensive intervention") OR noft("Circle-of-Security-Parenting")) OR (noft(Watch NEAR/2 Wait NEAR/2 Wonder) OR noft("Video Feedback to Promote Positive Parenting") OR noft(VIPP OR VIPP-AUTI OR VIPP-FC OR VIPP-SD OR VIPP-TWINS OR VIPP-V) OR noft("Attachment and Biobehavioural catch up") OR noft(ABC NEAR/2 intervention*) OR noft("Biobehavioural catch up") OR noft("Biobehavioral catch up") OR noft(ABC*

NEAR/6 attachment)) OR (noft("Parent-Infant Psychotherapy") OR noft("Parent Infant Psychotherapy") OR noft(" Child-Parent Psychotherapy") OR noft(" Child Parent Psychotherapy"))

148

Cochrane Library

Central Register of Controlled Trials (CENTRAL)

Cochrane Database of Systematic Reviews (CDSR)

122 records CENTRAL

2 records CDSR

#1 "Individual Child Psychotherapy"

#2 ("Dyadic Developmental Psychotherapy"):ti,ab,kw (Word variations have been searched)

#3 (theraplay):ti,ab,kw (Word variations have been searched)

#4 ("Video Interaction Guidance"):ti,ab,kw (Word variations have been searched)

#5 (VIG near/6 attachment):ti,ab,kw (Word variations have been searched)

#6 (circle NEAR/6 security*):ti,ab,kw OR (COS-P):ti,ab,kw OR ("Circle of SecurityTM"):ti,ab,kw OR ("Circle-of Security-Intensive intervention"):ti,ab,kw OR ("Circle-of-Security-Parenting"):ti,ab,kw (Word variations have been searched)

#7 (Watch near/2 Wait near/2 Wonder):ti,ab,kw OR (" Video Feedback to Promote Positive Parenting"):ti,ab,kw OR (VIPP or VIPP-AUTI or VIPP-FC or VIPP-SD or VIPP-TWINS or VIPP-V):ti,ab,kw (Word variations have been searched)

#8 ("Attachment and Biobehavioural catch up"):ti,ab,kw OR (" ABC intervention"):ti,ab,kw OR ("Biobehavioural catch up"):ti,ab,kw AND ("Biobehavioral catch up"):ti,ab,kw AND (ABC* near/6 attachment):ti,ab,kw (Word variations have been searched)

#9 ("Parent-Infant Psychotherapy"):ti,ab,kw OR ("Parent Infant Psychotherapy"):ti,ab,kw OR ("Child-Parent Psychotherapy"):ti,ab,kw OR ("child parent psychotherapy"):ti,ab,kw OR ("Parent Infant Psychotherapies"):ti,ab,kw (Word variations have been searched)

#10 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9

Conference Proceedings Citation Index – Science

Via Web of Science

28th May 2020

13 records

18 13 #17 OR #16 OR #15 OR #14 OR #13 OR #12 OR #11 OR #10 OR #9 OR #8 OR #7 OR #6 OR #5 OR #4 OR #3 OR #2 OR #1

Indexes=CPCI-S Timespan=1990-2020

17 1 TOPIC: ("Parent-Infant Psychotherapy") OR TOPIC: ("Parent Infant Psychotherapy") OR TOPIC: ("Child-Parent Psychotherapy") OR TOPIC: ("Child-Parent Psychotherapy")

Indexes=CPCI-S Timespan=1990-2020

16 1 TOPIC: (ABC* NEAR/6 attachment)

Indexes=CPCI-S Timespan=1990-2020

15 0 TOPIC: ("Biobehavioral catch up") OR TOPIC: ("Biobehavioural catch up")

Indexes=CPCI-S Timespan=1990-2020

14 0 TOPIC: ("ABC intervention*")

Indexes=CPCI-S Timespan=1990-2020

13 1 TOPIC: (VIPP or VIPP-AUTI or VIPP-FC or VIPP-SD or VIPP-TWINS or VIPP-V) AND TOPIC: (attachment)
Indexes=CPCI-S Timespan=1990-2020

12 0 TOPIC: ("Video Feedback to Promote Positive Parenting")
Indexes=CPCI-S Timespan=1990-2020

11 0 TOPIC: (Watch NEAR/2 Wait NEAR/2 Wonder)
Indexes=CPCI-S Timespan=1990-2020

10 0 TOPIC: ("Circle-of Security-Intensive intervention") OR TOPIC: ("Circle-of-Security-Parenting")
Indexes=CPCI-S Timespan=1990-2020

9 0 TOPIC: ("Circle of Security")
Indexes=CPCI-S Timespan=1990-2020

8 0 TOPIC: ("Circle of Security™")
Indexes=CPCI-S Timespan=1990-2020

7 0 TOPIC: (COS-P) AND TOPIC: (attachment)
Indexes=CPCI-S Timespan=1990-2020

6 10 TOPIC: (circle NEAR/2 security*)
Indexes=CPCI-S Timespan=1990-2020

5 0 TOPIC: (VIG NEAR/6 attachment)
Indexes=CPCI-S Timespan=1990-2020

4 0 TOPIC: (" Video Interaction Guidance")
Indexes=CPCI-S Timespan=1990-2020

3 0 TOPIC: (theraplay)
Indexes=CPCI-S Timespan=1990-2020

2 0 TOPIC: ("Dyadic Developmental Psychotherapy")
Indexes=CPCI-S Timespan=1990-2020

1 0 TOPIC: ("Individual Child Psychotherapy")
Indexes=CPCI-S Timespan=1990-2020

Conference Proceedings Citation Index - Social Science & Humanities

Via web of Science

Search date 22nd May 2020

Records 15

18 15 #17 OR #16 OR #15 OR #14 OR #13 OR #12 OR #11 OR #10 OR #9 OR #8 OR #7 OR #6 OR #5 OR #4 OR #3 OR #2 OR #1
Indexes=CPCI-SSH Timespan=1990-2020

17 4 TOPIC: ("Parent-Infant Psychotherapy") OR TOPIC: ("Parent Infant Psychotherapy") OR TOPIC: ("Child-Parent Psychotherapy") OR TOPIC: ("Child-Parent Psychotherapy")
Indexes=CPCI-SSH Timespan=1990-2020

16 1 TOPIC: (ABC* NEAR/6 attachment)
Indexes=CPCI-SSH Timespan=1990-2020

15 0 TOPIC: ("Biobehavioral catch up") OR TOPIC: ("Biobehavioural catch up")
Indexes=CPCI-SSH Timespan=1990-2020

14 0 TOPIC: ("ABC intervention*")
Indexes=CPCI-SSH Timespan=1990-2020

13 1 TOPIC: (VIPP or VIPP-AUTI or VIPP-FC or VIPP-SD or VIPP-TWINS or VIPP-V) AND TOPIC: (attachment)
Indexes=CPCI-SSH Timespan=1990-2020

12 0 TOPIC: ("Video Feedback to Promote Positive Parenting")
 Indexes=CPCI-SSH Timespan=1990-2020
 # 11 0 TOPIC: (Watch NEAR/2 Wait NEAR/2 Wonder)
 Indexes=CPCI-SSH Timespan=1990-2020
 # 10 0 TOPIC: ("Circle-of Security-Intensive intervention") OR TOPIC:
 ("Circle-of-Security-Parenting")
 Indexes=CPCI-SSH Timespan=1990-2020
 # 9 0 TOPIC: ("Circle of Security")
 Indexes=CPCI-SSH Timespan=1990-2020
 # 8 0 TOPIC: ("Circle of Security™")
 Indexes=CPCI-SSH Timespan=1990-2020
 # 7 0 TOPIC: (COS-P) AND TOPIC: (attachment)
 Indexes=CPCI-SSH Timespan=1990-2020
 # 6 4 TOPIC: (circle NEAR/2 security*)
 Indexes=CPCI-SSH Timespan=1990-2020
 # 5 0 TOPIC: (VIG NEAR/6 attachment)
 Indexes=CPCI-SSH Timespan=1990-2020
 # 4 0 TOPIC: (" Video Interaction Guidance")
 Indexes=CPCI-SSH Timespan=1990-2020
 # 3 0 TOPIC: (theraplay)
 Indexes=CPCI-SSH Timespan=1990-2020
 # 2 0 TOPIC: ("Dyadic Developmental Psychotherapy")
 Indexes=CPCI-SSH Timespan=1990-2020
 # 1 0 TOPIC: ("Individual Child Psychotherapy")
 Indexes=CPCI-SSH Timespan=1990-2020

Embase**Via OVID****Search date 22nd May 2020****Records = 327****Database: Embase <1974 to 2020 May 26>**

- 1 Individual Child Psychotherapy.ti,ab,kw. (8)
- 2 Dyadic Developmental Psychotherapy.ti,ab,kw. (6)
- 3 Theraplay.ti,ab,kw. (20)
- 4 Video Interaction Guidance.ti,ab,kw. (33)
- 5 (VIG adj6 attachment).ti,ab,kw. (2)
- 6 (circle adj6 security\$.ti,ab,kw. (42)
- 7 COS-P.ti,ab,kw. (39)
- 8 Circle of Security™.ti,ab,kw. (0)
- 9 Circle-of Security-Intensive intervention.ti,ab,kw. (2)
- 10 Circle-of-Security-Parenting.ti,ab,kw. (13)
- 11 (Watch adj2 Wait adj2 Wonder).ti,ab,kw. (7)
- 12 Video Feedback to Promote Positive Parenting.ti,ab,kw. (1)
- 13 (VIPP or VIPP-AUTI or VIPP-FC or VIPP-SD or VIPP-TWINS or VIPP-V).ti,ab,kw. (68)
- 14 "Attachment and Biobehavioural catch up".ti,ab,kw. (0)
- 15 ABC intervention\$.ti,ab,kw. (28)
- 16 "Biobehavioural catch up".ti,ab,kw. (0)
- 17 "Biobehavioral catch up".ti,ab,kw. (37)
- 18 (ABC\$ adj6 attachment).ti,ab,kw. (62)

- 19 or/1-18 (296)
 20 Parent-Infant Psychotherapy.ti,ab,kw. (73)
 21 parent infant psychotherapy.ti,ab,kw. (73)
 22 Child-Parent Psychotherapy.ti,ab,kw. (49)
 23 child parent psychotherapy.ti,ab,kw. (49)
 24 20 or 21 or 22 or 23 (120)
 25 attachment.ti,ab,kw. (116824)
 26 24 and 25 (39)
 27 19 or 26 (331)
 28 (rat or rats or mouse or mice or swine or porcine or murine or sheep or lambs or pigs or piglets or rabbit or rabbits or cat or cats or dog or dogs or cattle or bovine or monkey or monkeys or trout or marmoset\$1).ti,ot. and animal experiment/ (1060818)
 29 Animal experiment/ not (human experiment/ or human/) (2240788)
 30 28 or 29 (2288140)
 31 27 not 30 (327)

ERIC**Via Ebsco****Search date = 22nd May 2020****Records =83**

- S1 TX "Individual Child Psychotherapy" OR TX " Dyadic Developmental Psychotherapy" 6
 S2 TX theraplay 9
 S3 TX theraplay* 9
 S4 TX "Video Interaction Guidance" OR TX VIG W6 attachment 12
 S5 TX circle N6 security* OR TX COS N6 attachment OR TX "Circle of SecurityTM2" OR TX "Circle-of Security-Intensive intervention" OR TX "Circle-of-Security-Parenting" 10
 S6 TX Watch N2 Wait N2 Wonder OR TX "Video Feedback to Promote Positive Parenting" OR TX (VIPP or VIPP-AUTI or VIPP-FC or VIPP-SD or VIPP-TWINS or VIPP-V) 12
 S7 TX ABC N1 intervention* OR TX "Biobehavioural catch up" OR TX "Biobehavioral catch up" OR TX ABC* N6 attachment 7
 S8 TX Parent-Infant Psychotherapy OR TX "Parent Infant Psychotherapy" 8
 S9 TX Child-Parent Psychotherapy OR TX "Child-Parent Psychotherapy" 19
 S10 S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 83

MEDLINE**Via OVID****Search date 22nd May 2020****Records = 245****Database: Ovid MEDLINE(R) ALL <1946 to May 21, 2020>**

- 1 Individual Child Psychotherapy.ti,ab,kw. (4)
 2 Dyadic Developmental Psychotherapy.ti,ab,kw. (6)
 3 Theraplay.ti,ab,kw. (6)
 4 Video Interaction Guidance.ti,ab,kw. (17)
 5 (VIG adj6 attachment).ti,ab,kw. (0)
 6 (circle adj6 security\$).ti,ab,kw. (28)
 7 COS-P.ti,ab,kw. (36)

- 8 Circle of SecurityTM.ti,ab,kw. (0)
- 9 Circle-of Security-Intensive intervention.ti,ab,kw. (2)
- 10 Circle-of-Security-Parenting.ti,ab,kw. (11)
- 11 (Watch adj2 Wait adj2 Wonder).ti,ab,kw. (3)
- 12 Video Feedback to Promote Positive Parenting.ti,ab,kw. (1)
- 13 (VIPP or VIPP-AUTI or VIPP-FC or VIPP-SD or VIPP-TWINS or VIPP-V).ti,ab,kw. (59)
- 14 "Attachment and Biobehavioural catch up".ti,ab,kw. (0)
- 15 ABC intervention\$.ti,ab,kw. (23)
- 16 "Biobehavioural catch up".ti,ab,kw. (0)
- 17 "Biobehavioral catch up".ti,ab,kw. (41)
- 18 (ABC\$ adj6 attachment).ti,ab,kw. (59)
- 19 or/1-18 (224)
- 20 Parent-Infant Psychotherapy.ti,ab,kw. (33)
- 21 parent infant psychotherapy.ti,ab,kw. (33)
- 22 Child-Parent Psychotherapy.ti,ab,kw. (36)
- 23 child parent psychotherapy.ti,ab,kw. (36)
- 24 20 or 21 or 22 or 23 (69)
- 25 Reactive Attachment Disorder/ (563)
- 26 attachment.ti,ab,kw. (103826)
- 27 25 or 26 (103936)
- 28 24 and 27 (23)
- 29 19 or 28 (245)

PsycINFO

Via OVID

Search date= 22nd May 2020

Records = 535

Database: APA PsycInfo <1806 to May Week 3 2020>

- 1 Individual Child Psychotherapy.ti,ab,id. (28)
- 2 Dyadic Developmental Psychotherapy.ti,ab,id. (44)
- 3 Theraplay.ti,ab,id. (119)
- 4 Video Interaction Guidance.ti,ab,id. (38)
- 5 (VIG adj6 attachment).ti,ab,id. (3)
- 6 (circle adj6 security\$.ti,ab,id. (60)
- 7 COS-P.ti,ab,id. (11)
- 8 Circle of SecurityTM.ti,ab,id. (1)
- 9 Circle-of Security-Intensive intervention.ti,ab,id. (3)
- 10 Circle-of-Security-Parenting.ti,ab,id. (18)
- 11 (Watch adj2 Wait adj2 Wonder).ti,ab,id. (20)
- 12 Video Feedback to Promote Positive Parenting.ti,ab,id. (1)
- 13 (VIPP or VIPP-AUTI or VIPP-FC or VIPP-SD or VIPP-TWINS or VIPP-V).ti,ab,id. (67)
- 14 "Attachment and Biobehavioural catch up".ti,ab,id. (0)
- 15 ABC intervention\$.ti,ab,id. (23)
- 16 "Biobehavioural catch up".ti,ab,id. (0)
- 17 "Biobehavioral catch up".ti,ab,id. (55)
- 18 (ABC\$ adj6 attachment).ti,ab,id. (57)
- 19 or/1-18 (440)
- 20 Parent-Infant Psychotherapy.ti,ab,id. (163)

- 21 parent infant psychotherapy.ti,ab,id. (163)
- 22 Child-Parent Psychotherapy.ti,ab,id. (110)
- 23 child parent psychotherapy.ti,ab,id. (110)
- 24 20 or 21 or 22 or 23 (273)
- 25 attachment behavior/ (21723)
- 26 attachment disorders/ (679)
- 27 attachment theory/ (2024)
- 28 attachment.ti,ab,id. (39761)
- 29 25 or 26 or 27 or 28 (41658)
- 30 24 and 29 (105)
- 31 19 or 30 (535)

Science Citation Index

Via Web of Science

Search date 22nd May 2020

Records = 115

18 115 #17 OR #16 OR #15 OR #14 OR #13 OR #12 OR #11 OR #10 OR #9 OR #8 OR #7 OR #6 OR #5 OR #4 OR #3 OR #2 OR #1

Indexes=SCI-EXPANDED Timespan=1900-2020

17 31 TOPIC: ("Parent-Infant Psychotherapy") OR TOPIC: ("Parent Infant Psychotherapy") OR TOPIC: ("Child-Parent Psychotherapy") OR TOPIC: ("Child-Parent Psychotherapy")

Indexes=SCI-EXPANDED Timespan=1900-2020

16 32 TOPIC: (ABC* NEAR/6 attachment)

Indexes=SCI-EXPANDED Timespan=1900-2020

15 7 TOPIC: ("Biobehavioral catch up") OR TOPIC: ("Biobehavioural catch up")

Indexes=SCI-EXPANDED Timespan=1900-2020

14 9 TOPIC: ("ABC intervention*")

Indexes=SCI-EXPANDED Timespan=1900-2020

13 7 TOPIC: (VIPP or VIPP-AUTI or VIPP-FC or VIPP-SD or VIPP-TWINS or VIPP-V) AND TOPIC: (attachment)

Indexes=SCI-EXPANDED Timespan=1900-2020

12 0 TOPIC: ("Video Feedback to Promote Positive Parenting")

Indexes=SCI-EXPANDED Timespan=1900-2020

11 0 TOPIC: (Watch NEAR/2 Wait NEAR/2 Wonder)

Indexes=SCI-EXPANDED Timespan=1900-2020

10 2 TOPIC: ("Circle-of Security-Intensive intervention") OR TOPIC: ("Circle-of-Security-Parenting")

Indexes=SCI-EXPANDED Timespan=1900-2020

9 4 TOPIC: ("Circle of Security")

Indexes=SCI-EXPANDED Timespan=1900-2020

8 0 TOPIC: ("Circle of SecurityTM")

Indexes=SCI-EXPANDED Timespan=1900-2020

7 0 TOPIC: (COS-P) AND TOPIC: (attachment)

Indexes=SCI-EXPANDED Timespan=1900-2020

6 9 TOPIC: (circle NEAR/2 security*)

Indexes=SCI-EXPANDED Timespan=1900-2020

5 0 TOPIC: (VIG NEAR/6 attachment)

Indexes=SCI-EXPANDED Timespan=1900-2020

4 13 TOPIC: (" Video Interaction Guidance")
 Indexes=SCI-EXPANDED Timespan=1900-2020
 # 3 11 TOPIC: (theraplay)
 Indexes=SCI-EXPANDED Timespan=1900-2020
 # 2 7 TOPIC: ("Dyadic Developmental Psychotherapy")
 Indexes=SCI-EXPANDED Timespan=1900-2020
 # 1 3 TOPIC: ("Individual Child Psychotherapy")
 Indexes=SCI-EXPANDED Timespan=1900-2020

Social Care Online

via <https://www.scie-socialcareonline.org.uk/>

28th May 2020

39 records before deduplication, 35 records after deduplication

"Individual Child Psychotherapy" 0 records
 "Dyadic Developmental Psychotherapy" 9 records
 Theraplay 4 records
 "Video Interaction Guidance" 5 records
 "Parent-Infant Psychotherapy" 0 records
 "Child-Parent Psychotherapy" 0 records
 "Circle of Security" 8 records
 "Watch, Wait and Wonder" 0 records
 "Video Feedback to Promote Positive Parenting" 0 records
 VIPP 10 records
 "Attachment and Biobehavioural catch up" 1 records
 "biobehavioral catch up" 2 records

Social Policy & Practice

Via OVID

Search date 22nd May 2020

Records =84

Database: Social Policy and Practice <202004>

Social Science Citation Index

Via Web of science

Search date 22nd May 2020

Records 1174

Social Services Abstracts

Via Proquest

Search date 22nd May 2020

Records 4

Named intervention additional search, specifically for 'mother-infant psychotherapy', 'Dyadic Psychotherapy' and 'mother-infant psychoanalytic treatment'

ASSIA via Proquest 29th May 2020

22 records

S1 noft("mother infant psychotherapy") OR noft("mother infant psychotherapies")
 OR noft("mother child psychotherapy") OR noft("mother infant psychotherapies")
 Applied Social Sciences Index & Abstracts (ASSIA)

S2 noft("mother infant psychoanalytic" N/2 (intervention* or therap* or treat*)) OR noft("mother child psychoanalytic" N/2 (intervention* or therap* or treat*)) OR noft("dyadic psychotherapies") OR noft("dyadic psychotherapy")
Applied Social Sciences Index & Abstracts (ASSIA)

S3 (noft("mother infant psychotherapy") OR noft("mother infant psychotherapies")) OR noft("mother child psychotherapy") OR noft("mother infant psychotherapies")) OR (noft("mother infant psychoanalytic" NEAR/2 (intervention* OR therap* OR treat*)) OR noft("mother child psychoanalytic" NEAR/2 (intervention* OR therap* OR treat*)) OR noft("dyadic psychotherapies") OR noft("dyadic psychotherapy"))
Applied Social Sciences Index & Abstracts (ASSIA)
These databases are searched for part of your query.

Cochrane Library Via John Wiley 29th May 2020

CENTRAL=19 records

CDSR = 0 records

#1 ("mother infant psychoanalytic" near/2 (intervention* or therap* or treat*)):ti,ab,kw OR ("mother child psychoanalytic" near/2 (intervention* or therap* or treat*)):ti,ab,kw OR ("dyadic psychotherapy"):ti,ab,kw OR ("dyadic psychotherapies"):ti,ab,kw (Word variations have been searched)

#2 ("mother infant psychotherapy"):ti,ab,kw OR ("mother infant psychotherapies"):ti,ab,kw OR ("mother child psychotherapy"):ti,ab,kw AND ("mother child psychotherapies"):ti,ab,kw (Word variations have been searched)

#3 #1 or #2

Embase via Ovid

76 records

29th May

1 mother infant psychotherapy.ti,ab,kw. (32)

2 mother infant psychotherapies.ti,ab,kw. (3)

3 mother child psychotherapy.ti,ab,kw. (7)

4 mother child psychotherapies.ti,ab,kw. (2)

5 (mother infant psychoanalytic* adj2 (intervention* or therap* or treat*)):ti,ab,kw. (18)

6 (mother child psychoanalytic* adj2 (intervention* or therap* or treat*)):ti,ab,kw. (1)

7 dyadic psychotherapy.ti,ab,kw. (19)

8 dyadic psychotherapies.ti,ab,kw. (4)

9 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 (76)

ERIC via EBSCO

29th May 2020

2 records

ERIC

S1 TX "mother infant psychotherapy" OR TX "mother infant psychotherapies" OR TX "mother child psychotherapy" OR TX "mother child psychotherapies" 2 records

S2 TX ((mother infant psychoanalytic) N2 (intervention* or therap* or treat*)) OR TX ((mother child psychoanalytic) N2 (intervention* or therap* or treat*)) OR TX "dyadic psychotherapies" OR TX "dyadic psychotherapy" 0 records

S3 S1 or S2 2 records

MEDLINE VIA Ovid**44 records****29th May 2020**

- 1 mother infant psychotherapy.ti,ab,kw. (19)
- 2 mother infant psychotherapies.ti,ab,kw. (1)
- 3 mother child psychotherapy.ti,ab,kw. (4)
- 4 mother child psychotherapies.ti,ab,kw. (0)
- 5 (mother infant psychoanalytic* adj2 (intervention* or therap* or treat*)).ti,ab,kw. (9)
- 6 (mother child psychoanalytic* adj2 (intervention* or therap* or treat*)).ti,ab,kw. (0)
- 7 dyadic psychotherapy.ti,ab,kw. (14)
- 8 dyadic psychotherapies.ti,ab,kw. (3)
- 9 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 (44)

PsycINFO via Ovid**102 records****29th May 2020****Database: APA PsycInfo <1806 to May Week 4 2020>**

- 1 mother infant psychotherapy.ti,ab,sh. (36)
- 2 mother infant psychotherapies.ti,ab,sh. (11)
- 3 mother child psychotherapy.ti,ab,sh. (11)
- 4 mother child psychotherapies.ti,ab,sh. (2)
- 5 (mother infant psychoanalytic* adj2 (intervention* or therap* or treat*)).ti,ab,sh. (15)
- 6 (mother child psychoanalytic* adj2 (intervention* or therap* or treat*)).ti,ab,sh. (0)
- 7 dyadic psychotherapy.ti,ab,sh. (29)
- 8 dyadic psychotherapies.ti,ab,sh. (6)
- 9 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 (102)

Social Care Online**1 record****29th May 2020**

- named interventions [
- AllFields:"mother infant psychotherapy"
 - OR AllFields:"mother infant psychotherapies"
 - OR AllFields:"mother child psychotherapy"
 - OR AllFields:"mother child psychotherapies"
 - OR AllFields:"dyadic psychotherapy"
 - OR AllFields:"dyadic psychotherapies"
 - OR AllFields:"infant psychoanalytic intervention"
 - OR AllFields:"infant psychoanalytic therapy"
 - OR AllFields:"infant psychoanalytic treatment"

Social Policy & Practice**Via OVID 2 records 29th May 2020****Database: Social Policy and Practice <202004>**

- 1 mother infant psychotherapy.ti,ab,de. (2)
- 2 mother infant psychotherapies.ti,ab,de. (0)
- 3 mother child psychotherapy.ti,ab,de. (0)
- 4 mother child psychotherapies.ti,ab,de. (0)
- 5 (mother infant psychoanalytic* adj2 (intervention* or therap* or treat*)).ti,ab,de. (0)
- 6 (mother child psychoanalytic* adj2 (intervention* or therap* or treat*)).ti,ab,de. (0)
- 7 dyadic psychotherapy.ti,ab,de. (0)
- 8 dyadic psychotherapies.ti,ab,de. (0)
- 9 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 (2)

Social Services Abstracts via Proquest**29th May 2020****7 records**

(noft("mother infant psychotherapy") OR noft("mother infant psychotherapies") OR noft("mother child psychotherapy") OR noft("mother infant psychotherapies")) OR (noft("mother infant psychoanalytic" NEAR/2 (intervention* OR therap* OR treat*)) OR noft("mother child psychoanalytic" NEAR/2 (intervention* OR therap* OR treat*)) OR noft("dyadic psychotherapies") OR noft("dyadic psychotherapy"))

Web of Science**29th May 2020****75 records**

3 75 #2 OR #1

Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=1900-2020

2 24 TOPIC: ((mother infant psychoanalytic) N2 (intervention* or therap* or treat*) OR TOPIC: ((mother child psychoanalytic) N2 (intervention* or therap* or treat*)

OR TOPIC: ("dyadic psychotherapy") OR TOPIC: ("dyadic psychotherapies")

Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=1900-2020

1 52 TOPIC: ("mother infant psychotherapy") OR TOPIC: ("mother infant psychotherapies") OR TOPIC: ("mother child psychotherapy") OR TOPIC: ("mother child psychotherapies")

Indexes=SCI-EXPANDED, SSCI, CPCI-S, CPCI-SSH Timespan=1900-2020

Appendix 5 Reference list of excluded studies for systematic reviews

Review 1

World Health Organisation. *A Randomised Controlled Trial to Evaluate 'SAFEÂ® - Basic Trust', an Intervention to Support Attachment Security and Parental Mentalization*. 2019. URL: <https://trialssearch.who.int/Trial2.aspx?TriallID=DRKS00013099> (accessed 21 September 2021).

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*This report presents independent research funded by the National Institute for Health and Care Research (NIHR).
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