

INPLASY PROTOCOL

To cite: Sparkes et al. The determinants, outcomes and parenting interventions for attachment in children diagnosed with ADHD: A scoping review protocol. Inplasy protocol 2022120001. doi: 10.37766/inplasy2022.12.0001

Received: 01 December 2022

Published: 01 December 2022

Corresponding author:
Emmelie Sparkes

emmelie.sparkes@research.
uwa.edu.au

Author Affiliation:
The University of Western
Australia

Support: Australian
Government RTP.

**Review Stage at time of
this submission:**
Preliminary searches.

Conflicts of interest:
None declared.

The determinants, outcomes and parenting interventions for attachment in children diagnosed with ADHD: A scoping review protocol

Sparkes, E¹; Sheridan, A²; Mancini, V³; Drury, L⁴; Pestell, CF⁵.

Review question / Objective: The proposed scoping review aims to identify and map the current evidence base on (1) the range of parent and child determinants of attachment in child ADHD, (2) the mental health and functional outcomes for the child, and (3) the breadth, components and methods of existing psychological parenting intervention approaches that seek to improve or monitor attachment in children with ADHD. In doing so, we also aim to determine the scope of the current body of knowledge on this topic, identify gaps in the literature, and provide recommendations for future research. In addition, as this review forms part of a larger research project, it is anticipated that the results will also help to inform the development and tailoring of future intervention approaches for improving the attachment relationship in childhood ADHD. Primary and sub-questions were developed to guide the specific inclusion criteria for the scoping review (detailed below). These questions were based on the Population, Concept and Context (PCC) mnemonic recommended by the Joanna Briggs Institute (Peters et al., 2015) and are as follows: 1. What are the determinants of attachment quality in children diagnosed with ADHD? a. What are the parent determinants of attachment quality in children diagnosed with ADHD? b. What are the child determinants of attachment quality in children diagnosed with ADHD? 2. What are the child outcomes of attachment quality in children diagnosed with ADHD? a. What are the mental health outcomes of attachment quality in children diagnosed with ADHD? b. What are the functional outcomes of attachment quality in children diagnosed with ADHD? 3. What existing psychological parenting intervention approaches seek to improve attachment quality in children diagnosed with ADHD? a. What are the intervention components and methods?

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 01 December 2022 and was last updated on 01 December 2022 (registration number INPLASY2022120001).

INTRODUCTION

Review question / Objective: The proposed scoping review aims to identify and map

the current evidence base on (1) the range of parent and child determinants of attachment in child ADHD, (2) the mental

health and functional outcomes for the child, and (3) the breadth, components and methods of existing psychological parenting intervention approaches that seek to improve or monitor attachment in children with ADHD. In doing so, we also aim to determine the scope of the current body of knowledge on this topic, identify gaps in the literature, and provide recommendations for future research. In addition, as this review forms part of a larger research project, it is anticipated that the results will also help to inform the development and tailoring of future intervention approaches for improving the attachment relationship in childhood ADHD.

Primary and sub-questions were developed to guide the specific inclusion criteria for the scoping review (detailed below). These questions were based on the Population, Concept and Context (PCC) mnemonic recommended by the Joanna Briggs Institute (Peters et al., 2015) and are as follows:

1. What are the determinants of attachment quality in children diagnosed with ADHD?
 - a. What are the parent determinants of attachment quality in children diagnosed with ADHD?
 - b. What are the child determinants of attachment quality in children diagnosed with ADHD?
2. What are the child outcomes of attachment quality in children diagnosed with ADHD?
 - a. What are the mental health outcomes of attachment quality in children diagnosed with ADHD?
 - b. What are the functional outcomes of attachment quality in children diagnosed with ADHD?
3. What existing psychological parenting intervention approaches seek to improve attachment quality in children diagnosed with ADHD?
 - a. What are the intervention components and methods?

Background: Attention-Deficit/Hyperactivity Disorder (ADHD) is one of the most common neurodevelopmental disorders of childhood (Scandurra et al.,

2019; Wolraich et al., 2019). Worldwide, ADHD is estimated to affect 5.9% to 7.1% of children and adolescents (Willcutt, 2012). It is typically characterised by developmentally inconsistent levels of inattention and/or hyperactivity-impulsivity present before the age of twelve (American Psychiatric Association, 2013). Increasing research has highlighted associations between childhood ADHD and insecure parent-child attachment (Biederman & Faraone, 2005; Cavallina et al., 2015; Claussen et al., 2022; Wylock et al., 2021). Parent-child attachment refers to a child's emotional bond with an adult caregiver (i.e., the attachment figure) and how the child seeks proximity when in a stressful situation (Zeanah et al., 2011). Storebo and colleagues (2012) found that while approximately 60% of healthy children had secure attachment relationships, in a cohort of children with ADHD, those with secure attachment competencies formed lower than 10%. These findings indicate that further research into attachment in children with ADHD is warranted.

Rationale: Despite the evidence of a link between parent-child attachment and ADHD, there is limited knowledge about the parent and child determinants of attachment, the mental health and functional outcomes for the child, and what, if anything, is currently being done in the field to improve parent-child attachment relationships in the ADHD context. The prevalence of reduced attachment quality among children with ADHD, in conjunction with the worldwide prevalence of ADHD, articulate a clear need for tailored and targeted efforts that can improve parent-child attachment relationships in children with ADHD (Storebo et al., 2012; Wylock et al., 2021). However, we need first to gain a comprehensive understanding of each of these concepts and how they operate in this population before we can begin to develop targeted interventions. As these are broad and exploratory objectives, a systematic scoping review of the literature was deemed a necessary first step. To the best of our knowledge, a review of this

nature has not yet been conducted, nor has any similar protocol been registered.

METHODS

Strategy of data synthesis: The proposed scoping review will be consistent with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR; Tricco et al., 2018) guidelines. The methodological approach will follow the scoping review framework proposed by Arksey and O'Malley (2005) and enhanced by Levac and colleagues (2010). This is the most influential approach for the conduct of scoping reviews as it promotes clarity and rigour in the review process (Levac et al., 2010).

A systematic search will be conducted using the following electronic databases: EMBASE, PsycINFO, Proquest and PubMed. A hand search will also be conducted to obtain any relevant studies not identified in the initial search. Four concept groups with associated keywords and subject headings will be used to obtain relevant results that address the review questions. The concept groups are ADHD (Concept 1), Attachment (Concept 2), Child (Concept 3) and Caregiver (Concept 4). Keywords and subject headings used in the search were developed and refined in collaboration with the research team and a librarian. During database searches, the terms will be combined using AND operators and limited by a human-only filter. An example of the search strategy is as follows: (Attention Deficit Disorder with Hyperactivity OR Attention Deficit Disorder OR inattent* OR hyperactiv* OR impulsive* OR externalizing disorder) AND (attachment OR reflective function OR sensitive-responding OR maternal sensitive* OR paternal sensitive* OR mother-child relations OR parent-child relations OR parent-child relation* OR parent-child interact* OR parenting OR emotion coaching OR mentalization) AND (child OR pediatric OR adolescen* OR teen* OR young person OR youth OR kid OR juvenile OR boy OR girl) AND (parent OR mother OR father OR caregiver OR family OR carer)

A hand search of the grey literature (i.e., unpublished research) will also be conducted to identify relevant studies that may not be captured in the initial search. Grey literature will be identified via website searching and databases such as ProQuest Dissertations and Theses Global, Open Grey, Grey Net International and Grey matters.

This search strategy will be piloted via a preliminary search to enable a brief analysis of the terms used in titles, abstracts and indices of the articles identified. Any new search terms will be added before re-running and conducting further searches.

Eligibility criteria: Types of Participants.: Included studies will involve children under 18 with a primary ADHD diagnosis (who are analysed as a distinct sample) and their parent(s). Studies will be excluded if they include children with a mean age of 18 or greater, children with a secondary diagnosis of Autism Spectrum Disorder (ASD), or where ADHD samples cannot be separated from ASD samples. Studies directed towards participants with a substance-related disorder and/or an intellectual disability will also be excluded. Note. Parent(s) refers to the child's primary caregiver(s). The term is not restricted to the biological mother or father of the child. Concept: For the purpose of this review, the term attachment refers to the child's emotional bond with an adult caregiver (i.e., the attachment figure; Zeanah et al., 2011). Determinants of attachment can include any psychological parent and/or child predictors or moderators (e.g., maternal depression). Child outcomes can include mental health outcomes (e.g., ADHD symptoms) or functional outcomes (e.g., social functioning), measured using an objective measure. Interventions that seek to improve attachment include any parenting interventions that primarily target the caregiver(s) of a child, regardless of whether the child is absent or present and where improving or monitoring attachment, skills in sensitive responding and/or reflective functioning is the primary goal (i.e., interventions that teach parents skills in linking children's emotions to behaviours

and/or reflecting upon their own and their child's emotions). Eligible studies will address at least one of the review questions and must include an objective measure of attachment. Interventions that involve therapist-child contact for 50% or greater of the intervention will be excluded. Context: Studies will not be excluded based on geographical location or specific time limits.

Types of Sources: Eligible sources of information may include primary research studies, full-text articles, and/or grey literature. Text, opinion papers and letters are not deemed helpful in meeting the review's objectives and will therefore be excluded. Similarly, studies not written in English and without an available translation will also be excluded.

Source of evidence screening and selection: All publications identified will be stored, organised and managed using the citation software, EndNote (Clarivate Analytics, Philadelphia, USA). A two-step screening process will be undertaken using Covidence (Veritas, Health Innovation, Ltd, n.d.) with two reviewers at each step (the first reviewer screening 100%, the second reviewer screening 30%) to ensure rigour. During the first step, two reviewers will independently search electronic databases for relevant titles and abstracts. The first reviewer will also search reference lists and contact authors if necessary. Agreement between reviewers will be checked; any disagreements regarding eligibility for inclusion will be resolved by seeking additional information in the full-text articles and through discussion. If the two reviewers cannot agree, a third member involved in the review team will be consulted.

Once initial articles are chosen for the review, two reviewers will check full-text articles against inclusion and exclusion criteria. Any disagreements about inclusion will be resolved through discussion and/or consultation with a third reviewer. For transparency, the final scoping review will include a PRISMA flow diagram depicting the process of selecting and screening articles as well as any reasons for excluding non-eligible results.

Data management: Data charting will be conducted by a single reviewer and checked by a second reviewer using a customised data charting spreadsheet created and managed in Microsoft Excel (Microsoft Corporation, Redmond, USA). The spreadsheet will contain key citation details such as title, author(s), year of publication, type of evidence, and origin. It will also contain study aim(s), participant details and sample size, study design and methodology, and key findings that relate to the scoping review questions (i.e., where applicable, findings regarding determinants of attachment, outcomes of attachment, and/or parenting interventions that seek to improve attachment, including intervention components and methods). As the reviewer begins charting the studies, it may become apparent that additional unforeseen data could be usefully charted. Therefore, it is likely that charting will become an iterative process whereby the spreadsheet may be modified to accommodate relevant data. To ensure that there is consensus within the research team regarding the charting process and that the collected data are as "rich" as possible, a trial run of data charting will be conducted on the first five results (Daudt et al., 2013; Levac et al., 2010).

Presentation of the results: The results will be summarised and presented in a table. This will be accompanied by a narrative summary describing how the results relate to each scoping review objective and question, the gaps in the literature, and recommendations for future research. A list of included studies, a PRISMA flow diagram, and at least one complete search strategy will be provided.

Language restriction: English.

Country(ies) involved: Australia.

Keywords: Attention-Deficit/Hyperactivity Disorder; Attachment; Child; Caregiver.

Dissemination plans: It is anticipated that the results of the review will be published in a peer-reviewed journal.

Contributions of each author:

Author 1 - Emmelie Sparkes - Conceptualisation of the review, literature search, study screening, data extraction, summarising and reporting results, first draft of the manuscript and approval of the final manuscript.

emmelie.sparkes@research.uwa.edu.au

Author 2 - Andrew Sheridan - Guidance on scoping review process, third-party oversight of study screening and data extraction, manuscript review and approval of the final manuscript.

andrew.sheridan@uwa.edu.au

Author 3 - Vincent Mancini - Guidance on scoping review process, third-party oversight of study screening and data extraction, manuscript review and approval of the final manuscript.

vincent.mancini@uwa.edu.au

Author 4 - Liam Drury - Study screening, checking data extraction, approval of the final manuscript.

liam.drury@research.uwa.edu.au

Author 5 - Carmela Pestell - Guidance on scoping review process, third-party oversight of study screening and data extraction, manuscript review and approval of the final manuscript.

carmela.pestell@uwa.edu.au