



Deposited via The University of York.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/id/eprint/241044/>

Version: Accepted Version

Article:

BLOWER, SARAH LOUISE, Palliser, Gareth Martyn, Morton, Kate et al. (2026) Parent and practitioner perspectives on the acceptability, impact and logic model for 'ready to relate': an intervention to promote parent-infant relationships. *Infant Mental Health*. e70098. ISSN: 1097-0355

<https://doi.org/10.1002/imhj.70098>

Reuse

This article is distributed under the terms of the Creative Commons Attribution (CC BY) licence. This licence allows you to distribute, remix, tweak, and build upon the work, even commercially, as long as you credit the authors for the original work. More information and the full terms of the licence here:

<https://creativecommons.org/licenses/>

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.

PARENT AND PRACTITIONER PERSPECTIVES ON THE ACCEPTABILITY, IMPACT AND LOGIC MODEL FOR 'READY TO RELATE': AN INTERVENTION TO PROMOTE PARENT-INFANT RELATIONSHIPS

Authors

Sarah Louise Blower¹, Gareth Palliser¹, Kate Morton¹, Elizabeth Milne², Jane Dickens³, Sarah Compton¹ and Zoë Darwin⁴

1 Department of Health Sciences, University of York, Heslington, YO10 5DD, UK

2 Specialist Mother and Baby Mental Health Service, Bradford District Care NHS Foundation Trust, New Mill, Victoria Road Saltaire, Bradford, West Yorkshire BD18 3LD, UK

3 Community Infant Feeding Team, Bradford District Care NHS Foundation Trust, New Mill, Victoria Road Saltaire, Bradford, West Yorkshire BD18 3LD, UK

4 School of Human and Health Sciences, University of Huddersfield, Harold Wilson Building, Huddersfield HD1 3DH UK

Address for correspondence

Department of Health Sciences, University of York, Heslington, YO10 5DD, UK

sarah.blower@york.ac.uk

Data sharing and data availability statement

The datasets presented in this article are not readily available because this could compromise participants' privacy. The corresponding authors can be contacted with questions regarding the dataset. Requests to access anonymised data should be directed to Sarah Blower, sarah.blower@york.ac.uk.

Funding statement

This was funded by Bradford District Care Trust. Author SB and KM were also supported by the NIHR Yorkshire and Humber Applied Research Collaboration (ARC-YH; Ref: NIHR200166, see <https://www.arc-yh.nihr.ac.uk>). The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care

Conflict of interest disclosure

This research was conducted as an academic-practitioner partnership partly funded by Bradford District Care Trust (BDCT) who also own the intellectual property rights to Ready to Relate. Authors JD and LM are employed by BDCT and recognised as developers of Ready to Relate. Authors SB, GP, KM and ZD were funded, in part, by BDCT to carry out

this research. Authors JD and LM distributed invitations to parents regarding participation in the study. Data collection and analysis was carried out independently by the academic team (SB, GP, KM. ZD).

Ethics approval statement

Ethical approval for this study was granted by North West - Greater Manchester East NHS Research Ethics Committee (23/NW/0150) on 28th June 2023.

Acknowledgements:

The authors would like to acknowledge the parents and practitioners who gave their time to participate in this study. We would also like to thank ARC-YH for their support.

PARENT AND PRACTITIONER PERSPECTIVES ON THE ACCEPTABILITY, IMPACT AND LOGIC MODEL FOR 'READY TO RELATE': AN INTERVENTION TO PROMOTE PARENT-INFANT RELATIONSHIPS

Abstract

Parent-infant relationships are the foundation of child development. Ready to Relate (R2R) is a novel flexible intervention to enhance parent knowledge and awareness related to healthy parent-infant relationships including brain development, infant cues, and sensitive, responsive and attuned parenting. It is highly visual and designed to be accessible across cultures and language levels. This study explored parent and practitioner perspectives on the acceptability and impacts of R2R and used workshops to co-produce a logic model. Thematic analysis of semi-structured interviews with practitioners (N=14) and parents (N=18) in Bradford, UK, found that R2R was perceived to have positive outcomes for infants, parents, practitioners, and on others in the wider system. Potential mechanisms through which R2R promotes conversations about parent-infant relationships and facilitates positive change were identified and documented in the logic model. The relational parent-practitioner context was highlighted as critical for ensuring positive impacts and preventing unintended negative consequences. This study suggests that R2R may offer application in multiple delivery contexts and may generate positive impacts for parents and infants from diverse backgrounds. The logic model will guide further research to systematically evaluate outcomes from this promising intervention and support clinical application.

Key words

Parent-infant relationships, early child development, intervention, qualitative, evaluation, logic model

Key Findings and their Implications for Practice/Policy

1. Parents and practitioners perceive a range of positive benefits associated with Ready to Relate indicating that it holds promise as a tool to support parent-infant relationship work with families in a range of settings and contexts.
2. A supportive and non-judgemental relationship between parents and practitioners is key to ensuring the success of Ready to Relate and preventing harmful unintended consequences of the intervention.
3. Further research is required to test the logic model and establish the effectiveness and cost effectiveness of Ready to Relate and to explore the conditions under which it is most helpful.

Statement of relevance to the field of infant and early childhood mental health

Despite growing interest in parent-infant interventions promoting child development and family wellbeing, evidence gaps remain. Ready to Relate is a novel, flexible intervention implemented with families across contexts. This first formal qualitative evaluation suggests high acceptability and perceived positive outcomes from both practitioners and parents in Bradford, UK. The logic model identifies specific outcomes and mediating mechanisms for further research.

INTRODUCTION

Parent-infant relationships provide the foundation for early child development (Zeanah & Zeanah, 2018). High quality parent-infant relationships in which parents are emotionally bonded, sensitive to the infant's cues and predictably respond to distress with reassurance, are more likely to nurture secure attachment relationships and foster optimal health and development (Frosch et al., 2021). Conversely, difficulties in the parent-infant relationship are associated with poorer emotional, behavioural and social outcomes throughout childhood and into adulthood (Boldt et al, 2017).

Establishing the prevalence of difficulties in the parent-infant relationship is difficult due to the lack of formal diagnostic criteria, lack of consensus around assessment methods and differing definitions used across studies (O'Dea et al., 2023). It is estimated that up to 25% of families (in community samples) experience mild to moderate difficulties in the parent-infant relationship (e.g. McKay, 2025). Psychological distress and bonding difficulties often occur together, though this should not be presumed in all cases (O'Higgins et al., 2013).

Given the importance of parent-infant relationships, there is significant policy interest in early intervention to support parents in strengthening relationships and reducing difficulties. However, the evidence base for such interventions is largely informed by evidence from interventions for older aged children (Wright et al., 2023). Current evidence also tends to focus on birthing mothers; learning about family mental health will be maximised through research with a more diverse range of caregivers such as trans and non-binary birthing parents, non-birthing parents including fathers and co-parents, and other caregivers including parents' partners, babies' grandparents and others (Bergunde et al., 2024).

Barriers to accessing support to promote healthy parent-infant relationships can be considerable, including challenges in identifying relational needs both from the perspectives of caregivers and practitioners. Barriers to disclosing relationship difficulties include fear of being judged, stigma and fear of social services involvement and loss of custody (Wittowski et al., 2020). Additionally, practitioners such as health visitors (child health nurses) often lack confidence to raise and discuss parent-infant relationships, linked to a lack of specialised training (Kouvaras et al., 2022). To address these barriers, and with an ambition to shift societal discourse about infant capabilities, health visitors and perinatal and infant mental health practitioners in Bradford, UK, developed Ready to Relate (R2R).

R2R is intended to be a flexible resource that can be used by practitioners in a single session, for example during a routine contact within universal provision, or alongside existing interventions or specialist care for families with specific needs. R2R is designed to equip parents with information and awareness about the powerful influence that parenting behaviour can have on the development of babies and infants, and crucially to build an understanding that babies are born "ready to relate" and actively communicate with those around them. The intervention comprises a set of resource cards that are shared within one or more conversations between practitioners and parents. The resource cards provide photographs of babies or families on one side, and descriptive text/prompts for practitioners on the other. The cards cover different elements of the parent-infant relationship, including mind-mindedness, brain development, synapses, mutual gaze, infant cues, emotional regulation, distress, and the stress response system. The cards can be used to help parents build caregiver knowledge and understanding of skills to appropriately respond to,

and build bonds, with their babies. The cards are highly visual and designed to be accessible across cultures and when working with interpreters. The visual element is intended to promote sharing information in a non-judgemental style, including through offering examples of other families. The card pack remains with the practitioner and a supplementary website has recently been introduced to provide more detailed information on the R2R topics for parents to independently access at their own pace. R2R is used widely in settings across Bradford (a city with approximately 6800 live births annually and with high levels of socioeconomic deprivation and ethnic and cultural diversity) and in other areas of the UK.

Empirical evidence of the impact of R2R is currently limited. Internal monitoring reports suggest that practitioners who completed the initial training anticipated that R2R would be a useful tool to initiate discussions around parent-infant relationships (Authors Masked 2018). A small qualitative study conducted by R2R developers in Bradford found that nine South Asian mothers responded positively to R2R, stating they found the cards and conversation with their practitioner helpful to improve their interactions with their babies. Three mothers were interviewed one year later and all reported remembering concepts from R2R and stated that the cards improved their relationship with their baby and subsequent children (Authors masked, 2020).

These developer-led evaluations are promising and suggest that further formal research on parent and practitioner perspectives on acceptability and impact is warranted. Constructing a logic model is an important foundational stage in evaluation providing a framework for understanding how an intervention is expected to achieve its intended outcomes. Logic models provide a conceptual map that inform and shape the evaluation process, guiding evaluation objectives, research design and the selection of methods (Mills et al. 2019). In many well-established standards of evidence frameworks, qualitative insights on the acceptability, impact and experience of interventions, coupled with an articulation of programme logic are the first steps in building an intervention's evidence base (e.g. Foundations, 2025; Skivington et al., 2021).

THE CURRENT STUDY

The aim was to explore parent and practitioner perspectives on the acceptability and impact of R2R, with consideration of intersectionality and diverse family characteristics. For the purposes of this paper, 'parent' refers to any person acting as a primary caregiver of a child.

Research objectives:

1. To investigate parent and practitioner perspectives on the acceptability of R2R
2. To explore parent and practitioner perspectives on potential outcomes from R2R and mechanisms of change
3. To co-produce and refine a logic model describing a hypothesised theory of change for R2R

The evaluation aims, objectives and design were co-developed with R2R stakeholders as part of a collaborative partnership between an academic research team and practitioners in Bradford District Care Trust (developers of R2R) to support the ongoing development and quality improvement of R2R.

METHODS

Design

A qualitative study comprising qualitative interviews, descriptive thematic analysis and co-production workshops was designed to address the research objectives with a pragmatic focus on understanding how R2R is experienced by practitioners and parents.

Intervention

R2R is designed to promote parent-infant relationships through conversations between practitioners and parents, facilitated by the R2R card pack (or companion website).

The card pack comprises 76 A6-sized visual cue cards featuring photographs of babies or babies and their parent/carers on one side, and descriptive text on the other, each presenting different aspects of the parent/carer-infant relationship (bound together by a metal book ring, enabling the cards to be turned to or removed from the pack). Practitioners may choose one or two cards to discuss with a family, or a wider selection for a more intensive intervention, but it is not intended that all the cards are discussed with a family in a single session. The companion website is parent-facing and also contains images, videos, activities and more detailed information on all of the R2R topics featured in the card pack. The website may be looked at together with a practitioner or left with a parent to look at on their own afterwards at their own pace. Although now in the public domain, at the time of the study the R2R website parents could only access it via a password provided by their practitioner.

The content included in the resources (card pack and website) is guided by four key concepts: (1) *parental/caregiver sensitivity* - a caregiver's ability to perceive, correctly interpret, and respond in an appropriate and timely way to a child's cues, signals and needs (Nivison et al., 2026); (2) *mind-mindedness* – parents' tendency to make sense of the internal world of the infant and treat them as an individual with their own intents, feelings and behaviours (Meins et al., 2002); (3) *mid-range contingency* – the level of coordination between caregiver and infant where interactions are influenced by each other's behaviour but there is still breathing room and a degree of individuality, in contrast to low-range and high-range contingency (Beebe et al., 2010); and (4) *repair* – the notion that rupture (when a caregiver doesn't respond appropriately or promptly to an infant cue or signal) in parent-infant interactions is very common and that repair (regaining the connection) is more important, and developmentally optimal compared to perfect attunement (Tronick, 1989). The resources were also influenced by key theories and concepts relating to parent-infant relationships, such as attachment theory (Bowlby et al., 1992), intersubjectivity (Trevarthen & Aitken, 2001) and communicative musicality (Malloch and Trevarthen, 2009) and knowledge of early brain development.

Topics and sections covered in the resources comprise bonding in pregnancy, parenting and family relationships, early brain development, babies born ready to relate, skin-to-skin closeness and warmth, mutual gaze and sharing interest together, contingent marked

mirroring, 'not naughty'¹, cues (ready to relate, time to change, too much, distressed, do not disturb) and HPA axis and stress. Practitioners can use the pictures on the cards to discuss and talk about the ways babies relate and respond and to share the importance of understanding and responding to the baby's cues (psychoeducation). Practitioners can also use the pictures to support them in modelling observational and responsive parenting skills. The cards can also be used to positively reinforce strengths in the parent-infant relationship or parenting behaviours observed by the practitioner during the conversation, for example taking the opportunity to use the cards to highlight the positive impact on early brain development when the parent sings to, cuddles, talks or comforts their baby. The website provides additional video content on the topics and exercises or reflective tasks for parents to try at home, as well as replicating information and images from the card pack.

At the time of the study, training for R2R comprised an instructor-led single-session 2.5-hour training course delivered by R2R developers, covering the intervention rationale and instructions on how the cards can be used to support parent-infant relationships. The training also introduces the four key concepts (caregiver sensitivity, mind-mindedness, mid-range contingency and repair) and practitioners are given guidance to hold the concepts in mind when using the resources with parents. The training includes guidance for practitioners on how to tailor and pace the selection of cards and gives examples of how specific cards could be introduced or used with parents. An online, self-directed, CPD accredited version of the practitioner training is also now available.

R2R is designed specifically for practitioners with professional training and experience of working with families, but not necessarily with specialist knowledge in parent-infant relationships or infant mental health; this includes midwives, health visitors, mental health nurses, psychologists, social workers, early years practitioners (sometimes called nursery nurses) and family support workers. It is designed as a flexible resource that can be integrated into practice across different settings. It is important to note that R2R is not a substitute for therapeutic intervention in the context of significant parent-infant relationship difficulties, but it could be used as a tool/resource alongside other interventions to provide information or initiate conversations in specialist services.

Sampling and Recruitment

Purposive maximum variation sampling was used to select participants with diverse characteristics (Bowers et al., 2011). Sampling was guided by information power (Malterud et al., 2016), with sufficiency assessed throughout recruitment and data collection.

We recruited practitioners and parents from three different services supporting parent-infant relationships and already using R2R. These were: 1) specialist perinatal mental health (PMH) service offering clinical intervention during pregnancy or the first postnatal year for parents with diagnosed mental health disorders; 2) universal health visiting/child health nursing (HV) service; and 3) community-based, charity-led project providing targeted parent/caregiver wellbeing support.

¹ The 'not naughty' cards explore early brain development and self-control, supporting caregivers to develop realistic expectations and understanding of their baby's motivations and behaviours.

Practitioner eligibility required completion of R2R training within the last three years. We sampled for variation in practitioner use of R2R: 1) routine users; 2) those who previously delivered but had stopped; and 3) those who never implemented it. Service managers emailed invitations to all staff and promoted the study in team meetings. The invitation gave basic study details and invited interested individuals to contact the research team. Participation was anonymous (details not shared with managers) to reduce coercion risk.

Parent eligibility included receiving R2R within the last three years via the PMH or HV services, in-person or online. Ineligible parents included those whose index child had not survived, was not in their care, or if the parent was under 16. Eligibility was inclusive of different parental roles, genders, number of children, and language (interpreters were available). We did not recruit from the charity service due to its policies preventing post-intervention contact with families. Additional purposive criteria aimed to reflect local diversity, including lone parents, minoritised ethnic groups, migrant families, and those experiencing social deprivation.

Service managers identified eligible parents using digital records. They initiated contact and shared information sheets, seeking 'consent-to-be-contacted' by the research team. While services typically engage with a primary caregiver (often the birthing mother), contacted parents could share participation info with co-parents. Research staff followed up with detailed information and verbal consent procedures. Participating parents received a £30 shopping voucher.

Participants

A summary of the characteristics of practitioner and parent participants is provided in Tables 1 and 2 respectively.

Practitioners

Within PMH Service, all eligible practitioners (n=14) were approached and informed about the study and 12 consented to be contacted by the research team, of which five agreed to take part in the study. In the HV service approximately 135 staff members were eligible and informed about the study, 12 practitioners provided consent to be contacted, and seven took part in an interview. Two practitioners at the charity service were approached and both consented and took part in an interview.

Parents

Within the PMH service, attempts were made to contact 41 parents who met the purposive sampling criteria. Contact was established with 20 parents, five of whom declined to pass their contact details on to the research team. Of the 15 parents who provided consent to be contacted, nine agreed to take part. Within the HV service, 23 parents from HV Service were approached, 15 consented to be contacted by the research team, and eight consented to take part.

Table 1: Practitioner participants (N=14)

Sample characteristic	Frequency
<i>Service context in which the practitioner works and uses R2R</i>	
PMH service	5
HV service	7
PSS	2
<i>Practitioner role</i>	
Health Visitors or Health Visiting Staff Nurse (child health nurses)	5
Nursery Nurses	4
Psychological Therapists	2
Care Co-ordinators	2
Other	1
<i>Experience of delivering R2R</i>	
Used the cards only	5
Used both the cards and the website in contacts with parents (in some cases this only involved giving out the link to the website)	9
<i>Previous experience of supporting parents in the perinatal period</i>	
Yes	8
No	6
<i>Gender identity</i>	
Woman	14
<i>Age</i>	
30-39 years	4
40-49 years	6
50-59 years	3
60-69	1
<i>Ethnicity</i>	
South Asian	1
White British	13

Table 2: Parent participants (N=18)

Sample characteristic	Frequency
<i>Service context in which parent experienced R2R</i>	
PMH service	9
HV service	9
<i>Version of R2R experienced by parent</i>	
Parents experienced the R2R cards (and not the website) in interactions with a practitioner	8
Parents were exposed to the cards by practitioners and were given the link to and used the website version of R2R outside of practitioner appointments	9
Parent was given the link to the website and did not recall seeing the cards at any point	1
<i>Caregiving relationship to the infant</i>	
Non-birthing fathers	2
Birthing mothers	16
<i>Parent ethnicity</i>	
South Asian	3
White British	15
<i>Parent first language</i>	
Urdu	1
English	17
<i>Country of birth</i>	
UK	16
Outside UK	2
<i>Parent age</i>	
18-24 years	1
25-29 years	6
30-34 years	8
35-39 years	3
<i>Partner status</i>	
Single	6
Living with a partner or spouse	12
<i>Sexual orientation</i>	
Bisexual	1
Heterosexual	17

Data collection

Data was collected via semi-structured interviews. Parents and practitioners were offered face-to-face, telephone or online interviews, all selected an online audio or video interview. In instances where two parents from the same family were recruited, they could choose to take part separately or in joint interviews; both couples recruited to the study opted for the latter. On average, the interview duration was 45 minutes. Interviews were conducted by experienced researchers with postgraduate qualifications in research methods.

The interview topic guide was developed by the research team *a priori*, guided by our research questions, using information from existing R2R documents, and discussions with the developers of R2R. The topic guide was reviewed after the first few interviews and revised accordingly to address issues of question phrasing. Interviews were audio-recorded and transcribed.

Analysis

Data was managed in NVivo (Lumivero, 2023). Descriptive thematic analysis was undertaken by the academic team, comprised of three women and one man, all identifying as White British. One is a parent; three have psychology backgrounds and qualitative research experience. Two have expertise in theory of change and logic models, and two in perinatal or infant mental health. One has healthcare practitioner experience. All hold postgraduate research degrees; three have doctorates. All attended R2R practitioner training (delivered by authors X and X-masked) to prepare for the study.

The academic team read and made notes on two transcripts (one parent, one practitioner) and met to reflect on potential codes. Discussions also drew on reflections from interviewers. After this, one researcher coded the remaining transcripts using a mix of deductive and inductive approaches. We allowed for insights to emerge directly from the data, organising codes into categories informed by our research objectives. The team met regularly to discuss and refine codes, explore patterns, and agree on themes and sub-themes linked to core research aims.

Logic modelling

Logic models can aid understanding of the pathways through which interventions lead to desired outcomes and in doing so guide the design of effectiveness evaluations, intervention refinement and future decision-making (Weiss, 1995). We took a retrospective approach, adapting existing guidance (i.e. Bonell et al., 2015; Ghate, 2018; Kellogg, 2004). The logic model was co-produced drawing on the research and facilitation expertise of the academic research team (initials-masked) and the clinical and theoretical expertise of the practitioner team who developed R2R (initials-masked).

Figure 1: Steps in the logic model development process for R2R

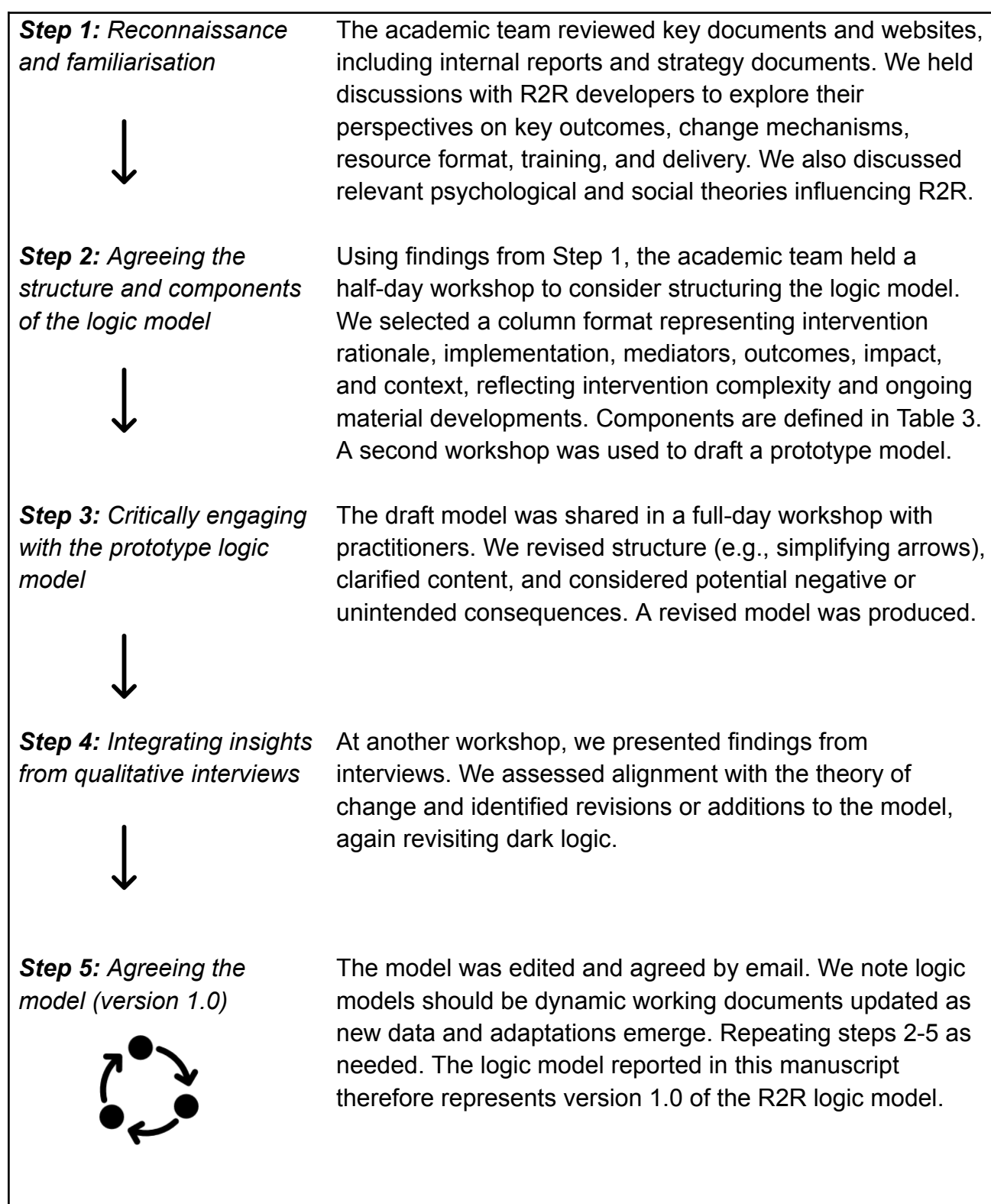


Table 3: Definitions of R2R logic model components

Component	Description
Rationale	The reasons why an intervention like R2R is needed and the practice gap it fills.
Inputs	Resources, materials and infrastructure needed to deliver the intervention.
Implementation	Detailed description of the key mechanisms underpinning successful implementation of the intervention. This section of the logic model is unpacked in more detail in a separate study (in press).
Intervention activities	Comprises things that are accessed or delivered as part of R2R. This includes the specific therapeutic techniques used by practitioners alongside the R2R resources to share knowledge, build skills and change parent behaviours.
Mediating factors	Factors that explain how intervention activities produce the intended outcomes and impacts. These are sometimes also referred to as immediate or short-term outcomes.
Outcomes	Specific and intended changes in knowledge, skills or behaviours experienced at an individual level by babies, parents or practitioners.
Unintended consequences	Representing the so-called 'dark logic' of the underpinning theory of change, this component describes unintended adverse consequences of the intervention
Impact	System-level changes expected as a result of R2R activities.
Contextual factors	Facilitators or barriers that enable or hinder R2R effectiveness. These factors may operate at different levels, i.e. at the individual, organisational or system level) and can influence one or more components depicted in the logic model.

RESULTS

Parent and practitioner perspectives are integrated rather than reported separately. A summary of themes and sub-themes is presented in Table 4. A narrative summary follows and is supported by quotes from parents (indicated by 'Pa', caregiver status, service in which they experienced R2R and whether this was the cards, website or both) and practitioners (indicated by 'Pr' and the service they work for).

Table 4: Summary of coding framework

Theme	Subtheme
1: Positive outcomes for infants, their parents, practitioners and beyond	1.1 Capacity to see the infant as a psychological entity with a mental experience
	1.2 New knowledge, skills and behaviours relevant to identifying and responding to infant cues
	1.3 A new sense of happiness, wonder and enjoyment in the parent-infant relationship
	1.4 Improvements in parent wellbeing, confidence and coping
	1.5 Identifying further needs
	1.6 Sharing R2R with others
2 Intervention characteristics that promote acceptability and engagement with R2R	2.1 Relatable visual images help practitioners start conversations about parent-infant relationships
	2.2 Visual images as a way to tackle health inequalities
	2.3 Using visual images to convey information and new knowledge
	2.4 Bite-size content is more accessible and easier to remember
	2.5 Credibility of information
	2.6 A strengths-based approach to reinforce behaviour in real time
	2.7 R2R as a tool for normalising difficult feelings and experiences
3: The importance of the parent-practitioner relational context/conversation	3.1 Unintended consequences
	3.2 Practitioner skill to support sensitive conversations and guide use of the website

THEME 1: Positive outcomes for infants, their parents, practitioners and beyond

Parents and practitioners consistently reported a range of benefits from R2R that impacted at multiple levels including for the infant, parents, practitioners and others in their lives. At the heart of this was a change in the way parents and practitioners understood infant development and behaviour, developing new learning that they eagerly shared with others around them.

1.1 Capacity to see the infant as a psychological entity with a mental experience

Parents and practitioners described how R2R helps shift perceptions about infant capabilities and helped parents to see their baby as a person with their own needs, and desires to communicate and interact from birth.

They're a whole person, not just a baby. And I didn't realise that. Obviously I knew that there was a person, but I thought that there was a whole person a lot later in life, not as soon as they're here they need that interaction... (Pa2, birthing mother, PMH, website)

The approach also helped both parents and practitioners to consider things from the baby's perspective, as expressed by a practitioner who was new to working with families, when describing the training, and by a parent in being more baby-led.

It was also the idea of babies learning for the first time that they've got fingers and toes and what rain feels like and all that, the experience of a baby...the training made me think, Oh, I wonder what it's like to be a baby? (Pr3, PMH)

We are a lot happier...If he just wants to sit there and do nothing, I'm okay with that. I'm all for it. I will do it. It's made me realise that I'll do what my baby wants to do... He's very much in the driving seat. (Pa2, birthing mother, PMH, website)

Some parents noticed a change in their approach to parenting following R2R, and felt their baby had become happier as a result of this, accompanied by them feeling happier and more bonded to their baby. This provides a lens through which to consider the baby's experience of R2R.

Yeah, so he's just become a lot more, a lot more smiley, a lot more settled, a lot more happy...we just seem to have a lot more, like bonding time, which has been lovely. (Pa14, Birthing mother, HV, cards+website)

Other parents were less confident about whether they could attribute any changes in their baby's behaviour to R2R due to babies' development and communication changing so rapidly.

It's quite hard because they're developing all the time anyway so it's hard to know like what's changed because of you or what's changed just naturally. (Pa7, Birthing mother, PMH, cards+website)

1.2 New knowledge, skills and behaviours relevant to identifying and responding to infant cues

Parents reported that they developed new awareness and knowledge about infant development.

To be honest, I didn't know half the stuff like they were telling me, do you know, showing me and stuff, that was like a bit of learning for me as well.

(PA5, Birthing mother, PMH, cards+website)

Key concepts that parents recalled learning included skin-to-skin contact, mirroring, and disengagement cues, and they viewed these as relevant for all parents.

I definitely remember the skin-to-skin contact which is something that I took away from that personally because I wanted to do that with my baby as well. And, you know, before the cards I wasn't aware that it was something the father does as well or the father can do.

(PA13a, non-birthing father, HV, cards)

A greater understanding of infant cues provided new opportunities to interact with babies, and parents described how acquiring new knowledge about observational skills made them more motivated to engage with their baby.

Rather than waiting until they cry, there are all these signs where you can pick up on what they are actually trying to tell you before they cry about it...so, I have been watching for things like that and that stuck in my head, when she [the practitioner] said it.

(PA12, birthing mother, HV, cards)

Practitioners commented that R2R had increased their own knowledge about parent-infant relationships, while others described how the more detailed information on the R2R website had enhanced their understanding about the concepts described by the cards.

Without the cards I'd probably still be avoiding the perinatal conversations because I would feel like I don't know enough about it.

(Pr3, PMH)

1.3 A new sense of happiness, wonder and enjoyment in the parent-infant relationship

Parents described positive emotions including excitement or happiness, that they noticed in themselves and, for some, in their partners. This came from seeing their baby interact in the ways shown in R2R, and from their realisation about the positive impact their actions can have on their baby's development.

To actually notice that and see those patterns of development. I think [baby's father] became quite excited actually – I was excited, as well. I think for dad, definitely he was excited, especially when laughing.

(Pa16, birthing mother, HV, cards+website)

I think it gave me an extra positive feeling of, oh, wow, there's even more to being a parent than I thought and just how much you can make a positive impact on a child's development and stuff, so I think that was a nice moment when we were looking at all that information.

(Pa8a, birthing mother, PMH, cards+website)

This could occur even while parents were still pregnant and were anticipating what it would be like to interact with their baby.

I had a lady today and...she was like, "Oh, I can't wait till my baby's doing that". And that was using an interpreter actually. And you could just tell, you know, that she got really excited actually because she just didn't realise this was a thing...that she could put the work in and get all this out from her baby at such a young age.

(Pr13, HV)

1.4 Improvements in parent wellbeing, confidence and coping

Most parents described feeling more confident as a parent after engaging with R2R. For some this was attributed to positive reinforcement of the existing strengths in their parenting approach and for others it was a sense of empowerment that came from learning new knowledge and skills. This could be relevant both with their existing babies but also future children.

And it just makes you realise like for me anyway, it just put a lot of confidence in myself and it made me like bond with my daughter a little bit more because I was having struggles with bonding with her. I was doing the right things but I didn't think I was.

(PA5, Birthing mother, PMH, cards+website)

When thinking about it now, using Ready to Relate has made me a lot more confident to have another [child].

(Pa2, birthing mother, PMH, website)

First-time and expectant parents described how R2R reassured their fears about meeting societal expectations.

It's very much like, "Oh my God, I need to know my baby inside out from the first day of knowing them"... maybe I don't need to understand my little boy as much as what I thought I did. Because he's learning, I'm learning and we're just growing together now. (Pa2, birthing mother, PMH, website)

Some parents discussed how R2R gave them coping mechanisms to help deal with the stresses and demands of parenting, though this was linked to multiple exposures to R2R. For example, one parent described using the website in their own time:

It felt very light. I felt very light after reading the pack. I felt like a weight was lifted off my shoulders as well because it gave me coping mechanisms about how that I can cope with dealing with the anxiety, dealing with the stress that I was

experiencing as well. So, to be honest, it really, really did help me deal with that.
(Pa4, birthing mother, PMH, cards+website)

They also valued being able to access R2R online when they needed it, providing self-led support.

Yeah, it definitely helped change in the moment an outlook on something...in particular the 'take five' bit of the website, which is basically, right, if you're having a hard time... that's what you need when you're in a stressful situation.
(Pa8b, non-birthing father, PMH, cards+website)

1.5 Identifying further needs

Some practitioners viewed the R2R cards as a useful tool for assisting them in building a picture of parents' understanding and identifying any further needs relating to mental health and relationships, where practitioners could then signpost to further support or make a referral where appropriate.

I think the cards can help show you how much understanding the parent has as well. So actually for the services that don't specialise in mother and baby or parenting...you can get a lot of information from the parent by using them.
(Pr4, PMH)

1.6 Sharing R2R with others

Where practitioners gained new knowledge about brain development and infant engagement cues from R2R, they were motivated to share this with clients.

I've now been working for 11 years in this work. I've got four children. I never really realised how much babies do disengagement cues. So, if you were feeding a baby, that they'll turn their head away when they've had enough or they just shut their mouth or they might put their hand up. But in the cards you can see that even a little baby will do that...So, I think there's so much information that we have that we can transmit to clients. (Pr6, PMH)

Moreover, some practitioners talked about how they share knowledge from R2R in their personal lives to challenge misconceptions about babies and parent-infant relationships, particularly in response to negative attributions assigned to infant behaviours or personalities and their need to relate.

My niece had covered herself in [skin cream] the other week and... she [parent] put it on Facebook or something, saying, "Naughty so and so's been at it again." And I straight away sent her this and said, "No, she's not." (Pr12, HV)

Parents also described sharing R2R with others, including wider family members. This involved sharing information they had learned about babies being ready to relate, this is

consistent with one of the broader goals of R2R to shift the narrative about infant capacities to interact and communicate.

My sister's got a baby that's nine months older than my little boy and I was showing her ... and she was like, "I really wish I knew about that," when her little boy was born. (Pa2, Birthing mother, PMH, website)

THEME 2: Intervention characteristics that promote acceptability and engagement with R2R

Participants described how the format, content and perceived credibility of R2R facilitated parent engagement with practitioners in conversations about parent-infant relationships, including those parents likely to experience disadvantage and inequality. The materials also gave practitioners confidence to embed R2R in their everyday practice.

2.1 Relatable visual images help practitioners start conversations about parent-infant relationships

Practitioners valued the visual images of parents, babies and infants, contained in the cards and perceived that they helped to reduce the risk of parents feeling judged when engaging in conversations about parent-infant relationships (by illustrating other families having similar experiences). In parallel, this helped practitioners to feel more comfortable with initiating potentially difficult conversations.

...it's not her with her baby, it's a baby, it's showing that this sort of thing happens widely, crying, you know, and so there's the option for a discussion that might not be seen as so personal...I was going to say persecutory, that people might even, I think they can feel very sort of sensitive about their relationship with their baby. (Pr6, PMH)

Parents similarly felt that having a physical picture in front of them helped to create a common interest between them and the practitioner, to facilitate conversation.

They have got the pictures on them as well, so it makes it interesting and it gives you something to talk about as well with the health visitor, because sometimes you don't really know what to say to them when they come around. (Pa16, birthing mother, HV, cards+website)

Practitioners described how they linked the pictures to everyday experiences, or images in the media, to encourage parent interest and attention on the cards.

...the marshmallow one [this refers to a card called 'not naughty' that has a story board of photos illustrating the famous Stanford Marshmallow Test Experiment (Shoda et al., 1990)], because I sort of say, "You might have seen it on Tik Tok or YouTube," they relate to that straight away then and they're, like, "Oh yeah, we've seen that," and then we get chatting about it, and yeah, sort of go into detail about how he [baby] might be feeling as well, and things like that. (Pr8, HV)

Practitioners identified that R2R enabled them to initiate conversations about parent-infant relationships with families more often, due to the pack of cards providing a physical reminder.

It's an opening to a conversation and I think that's the difference that before there was no reason to talk about it because, one, we didn't know or, two, we'd no reason to talk about it, whereas now...it's a reminder for us as well as professionals, oh, don't forget to talk about Ready to Relate because you've got the cards there.
(Pr13, HV)

2.2 Visual images as a way to tackle health inequalities

There were several ways in which the cards and website were seen as inclusive and accessible to groups of parents known to face barriers to equitable health care and support.

Several practitioners described how having something visual helped to draw all parents into the conversation through having a physical cue to focus on. More specifically, practitioners described using the photos of fathers to welcome their involvement and indicate the conversation's relevance to them.

...because there are pictures of dads within it, you know, it's much easier. You tend to go to those ones first then, so they feel more involved as well [when speaking with couples or fathers]. (Pr12, HV)

One comment indicated that involvement of fathers in conversation may shape how parents fundamentally viewed the practitioner, promoting continued involvement.

And yet when you engage with them and you get them interested, their attitude, I've seen it many times, especially with dads, their attitude changes. And then when you go back to maybe do the birth visit, they're, "Oh, it's you. I remember you, and actually you mentioned this and my baby's doing that now," and they're all excited, you know, and I think, oh, that's lovely, that their attitude to professionals almost changes. (Pr13, HV)

The use of visual images was seen as helpful for working with parents who are neurodivergent, including in supporting social communication, processing and memory.

I've found it's been particularly helpful with some of the autistic mums that I've worked with... so rather than it being a conversation that feels overwhelming, the card and the digital resource with them particular families have been sort of game changing. (Pr7, PMH)

The use of visual images additionally helped with inclusive access with regards to spoken language. One couple described how the pictures could help facilitate understanding for parents whose first language was not English.

She thinks the pictures on the cards were really helpful as they kind of illustrated what the conversation was about so it just kind of helped to explain the point a lot more. (Pa13a translating for his partner, Pa13b, birthing mother, HV)

Practitioners similarly voiced that the pictures could support conversations when there was a language barrier, but noted that some verbal communication was still important, consistent with these being intended to be used within the context of relational conversations rather than as self-guided resources.

The cue cards that we carry with us, I find them really useful, especially where there's a language barrier, and sometimes the images really speak volumes, and you can just sort of get, rather than discussing the words, you can just say, "Oh, look at this photo, this is what ideally babies want from us. (Pr10, HV)

Practitioners additionally identified the value of the images in the context of language barriers and where interpreter support was being provided (either by family members or by professional interpreters). This included the potential for the images to facilitate the interpreting process by helping interpreters understand the information they were sharing.

And I actually use them a lot with interpreters, and they'll interpret and I'll show them the cards and so the cards actually make my life easier. Without the cards, I don't know how I'd even describe to an interpreter what I'm showing them, you know, so it's helping me and it's helping the clients. (Pr13, HV)

However, challenges using the cards and website in person with remote telephone interpreter support were consistently highlighted, with use of the telephone preventing the interpreter from viewing the image.

I think when you use an interpreter, sometimes it can be hard, because I have to explain to the interpreter what picture I'm showing, and describe it, and then the interpreter has to inform the, speak to the mum or the dad, and then it's kind of a three way thing. So sometimes things can get lost a little bit. (Pr9, HV)

2.3 Using visual images to convey information and new knowledge

In addition to the images being useful for initiating conversations in ways that felt non-threatening and non-judgmental (by showing images of other families), they helped to explain concepts such as how interacting with your baby promotes their brain development, and their brain's flexibility which could itself shape motivation.

And I think it helped us to really visualise what was going to be happening in her brain and how we could impact it and look after her and be assured that everything was... we could have a positive impact on her development. (Pa8a, birthing mother, PMH, cards+website)

Similarly, one couple described how seeing families in the photos made them want to be like them, with pictures acting as a powerful motivator.

With it being our first child it was just something, you know, we were so looking forward to and being able to have the opportunity to be like the people in the pictures. (Pa13a, non-birthing father, HV, cards).

One parent described trying to share the learning from R2R with her partner, but finding this difficult without having access to the image.

It is harder to explain without the image – so like because she [practitioner] had the image she could talk through it really easily – and he [partner] I think he was a little bit like, “I don’t really know what you mean” (Pa6, birthing mother, PMH, cards)

2.4 Bite-size content is more accessible and easier to remember

Many parents emphasised the importance of the “bite-sized” format of R2R, and commented that this made R2R much easier to use than other parenting leaflets and books which they had found overwhelming in terms of volume of information.

When you leave the hospital, they give you so many leaflets about this, that and the other and they're like, “Read that, read that, read that,” and you're just like, you're so, overwhelmed with information.... This one was easy. It's such easy to look at, to understand. (Pa2, Birthing mother, PMH, website)

Practitioners also found the bite-size format worked well for communicating key information efficiently with parents, and noted that this made it easier for parents to retain information.

So responses that you get from parents is that do you know, if you’ve shared that little bit of knowledge with them you might meet them later, 6 months, 12 months down the line and that little golden nugget of information that you shared with them they’ve still remembered it. (Pr2, PSS)

2.5 Credibility of information

Practitioners perceived that the cards helped to make the information they share more credible, because of being printed in a formal document. This could increase practitioners’ confidence in addressing misconceptions with parents. Practitioners also reported that this in turn empowered parents to correct myths within their wider families.

...you know, it can make them think, “Well, yeah, actually my mum said baby needed to cry it out, I’m going to spoil baby if I cuddle her, whereas Health Visitor’s just said to me oh if I cuddle my baby, you know, they’re going to feel really safe and secure and actually I’ve got these cards and things to back up what she’s saying” (Pr11, HV)

This was mirrored by parents, who valued the perceived credibility of R2R.

...to actually see it physically in front of me and have it explained, it made a lot of sense, and it was like more evidence because I could physically see what she was saying, like it was true. (Pa6, birthing mother, PMH, cards+website)

The value of the parents in the photos being real-life examples was also mentioned by a parent using the website, implying that stock photos of models would not be as credible or relatable:

I also thought it was good that they had videos and photographs and stuff on there to use, it was quite, that was user friendly as well, and it's like real life examples. (Pa14, birthing mother, HV, cards+website)

One practitioner tended to let parents know that the cards were developed in their community and felt this made the information even more relevant and credible to parents, partly through local pride in the area, identifying with babies and families in the photos and the representation of diverse backgrounds (in the example below, families with South Asian heritage).

You can tell they're proud when you say, "Actually, you know, this started in Bradford and these are Bradford babies," and they really immediately start to engage more actually...I think a lot of Asian families are really surprised when they see Asian ladies and Asian babies because they don't expect to see it... and you can see them smiling and they're really happy. And then can then visualise, "Oh, well this could be me and my baby." (Pr13, HV)

However, another practitioner described how despite the additional credibility provided by the cards, this may not be enough to support some parents to be receptive to the information and engage in the conversation.

I actually think they do support you as a clinician to feel a bit more like, "This is a thing because it's in a book and we're providing it". So, I think that gives it some gravitas which I think is a good thing, but some women are always going to just not take on-board the information. Some women are just going to be like that. (Pr3, PMH)

2.6 A strengths-based approach to reinforce behaviour in real time

In addition to reducing the pressure around potentially difficult conversations, practitioners valued the ability to positively reinforce a parent's behaviour in 'real time' by directly linking the parent's actions to an example on the card.

It is really quite enjoyable to be able to show a mum a picture of something you have seen the mum doing...and be like, "Look at actually what you're doing; this is a big deal (Pr3, PMH)

This was also reflected in parents' experiences of R2R.

...every time she'd come out, she'd show me it because she was like, "You're doing this now, you've done that. And this is what he's now doing, but are you realising?" And it was actually really helpful. (Pa2, Birthing mother, PMH, website)

Identifying opportunities to use the cards in contacts with parents is partly about the capacity to tailor R2R to the needs and circumstances of the family. Practitioners highlighted that it is important to tailor R2R messages to meet the individual needs of parents and promote parental engagement and the acceptability of the resource.

...people will respond well if it's something that feels relevant to them or something that's a concern for them. (Pr6, PMH)

2.7 R2R as a tool for normalising difficult feelings and experiences

Despite not being the main purpose of R2R, some practitioners found it a helpful tool to validate negative emotions and show parents that these are common experiences, behaviours, and feelings.

Mums that have come to us on our group who are worried about their bond and their attachment with baby...It's not just them that are feeling like this. It's very common. (Pr1, PSS)

This was mirrored by parents, who found that R2R helped them feel less ashamed and self-critical about their thoughts and emotions, through normalising their experiences. One parent described how the R2R website helped her in this way.

There's a lot of shame and stigma that's attached to it because you've just had this beautiful baby. Now why are you feeling angry? Why are you feeling stressed? Why are you feeling embarrassed? And I think the Ready to Relate online package that I saw, it kind of made it like it was normal and it's not just me that experiences it and it is very, very common to have those sort of feelings after you've given birth. (Pa4, birthing mother, PMH, cards+website)

While a card showing synapse development was mostly used to motivate parents to interact with their baby, one parent described how their practitioner used this card to provide reassurance that babies' brains are flexible and adaptable, reducing pressure when caught with negative thought patterns and promoting self-compassion. This highlights the value of the practitioner tailoring their discussion around the cards to the parent's circumstances.

Giving him a second to like cry was just teaching him that he can cope with being uncomfortable and that he can cry for a second and then I'll be there. It's helped me to know when I'm thinking about stuff and I get stuck on that thought track, I can visualise it, like I can remember that that's actually what happens and I know that actually it can solve, and that these things aren't really solidified until they're two, which I didn't know before. So that's helped because I don't... not feel so worried about it all the time. (Pa6, birthing mother, PMH, cards)

THEME 3: The importance of the parent-practitioner relational context

Although it would be easy to conceive of the R2R materials as an intervention in their own right, parent and practitioner experiences suggest that the R2R intervention is more than the materials. Practitioner skills in facilitating non-judgemental conversations are key to preventing harm and unintended negative consequences of engaging with the cards or website.

3.1 Unintended consequences

In addition to the predominantly positive elements presented above, some parents and practitioners shared negative consequences or implications, described here as unintended consequences. Some parents described feeling guilty for not better understanding their baby before they knew about R2R.

And I did feel like I should have known so much from when he was born because the past four weeks, he's been doing all of this and I've just been ignoring him. I've been trying to get him to sleep and trying to, all these different things when, I really, I should have known that that wasn't the issue at all.

(Pa2, Birthing mother, PMH, website)

Notably, although this parent described the benefits of their new learning, they were also reluctant to use the digital version in case it brought to light more areas of discrepancies and made them feel overwhelmed and further questioning of their own parenting.

I don't want to go in there too much because I'm still going to be like, "You should still be doing this," and, "Oh my God, you're not doing this, but you're doing this, but it's not on there". So, I don't want to go too textbook on that.

(Pa2, Birthing mother, PMH, website)

Another parent described how learning about the impact their behaviour has on their baby could make them feel worried.

It's probably just a bit of guilt about my own insecurities and my own life exp- I don't think it's actually to do with them, but it just it kind of opened another can of worms if you know what I mean?" (Pa5, birthing mother, PMH, cards+website)

Another parent described feeling confused after using R2R because they felt they should now be able to better understand their baby but remained unconfident.

I was looking at what the sort of first signs of being tired are, and they just kind of overlap with so many other things, and I think that was a bit stressful.

(Pa7, birthing mother, PMH, cards+website)

A couple of practitioners also reflected that R2R can bring up feelings of guilt or regret about how they themselves parented their own children.

I suppose I made mistakes with my children that, had I known the information that I know now, I would have realised this baby's distressed and just wants to disengage with me and has had enough and just wants to be left alone, so I do feel a pang of guilt now and again when I think of it actually. (Pr13, HV)

3.2 Practitioner skill to support sensitive conversations and guide use of the website

Practitioners identified the potential for negative impacts for parents if the conversations around R2R concepts were not sufficiently sensitive.

I guess if you didn't quite word it right or approach it very well then it might come across as a bit critical and a bit like you're giving advice that maybe isn't wanted. But that's the same for anything. And I think that's about the Clinicians' interpersonal skills; not about the cards. (Pr3, PMH)

Practitioners also mentioned the need to be aware of a family's context when using the cards, for example if the parents had been unable to do something recommended in the cards, such as skin-to-skin.

Some people get really, you know, if they've had a very difficult birth and maybe bled a lot or got sepsis or need suturing or the baby's very poorly, they don't get the opportunity for skin-to-skin immediately afterwards. And it can be something that people feel really traumatised about. So, I suppose potentially that could be a bit triggering. (Pr6, PMH)

The importance of tailoring was identified by both practitioners and parents. Interviews indicated that parents varied in the extent to which they perceived themselves as 'needing' R2R, which could influence acceptability and their receptiveness to learning from R2R. For example, some parents perceived that R2R was more useful for first-time parents or parents who are struggling.

I think mums [that] have already got children before, you've already done it, so you don't need somebody to tell you not to leave your baby crying or to hold them close and make eye contact and skin to skin and stuff like that. I think you would probably already know all that. (Pa9, birthing mother, HV, cards)

Yeah, definitely because otherwise you're not going to use them effectively anyway because you're going to either go over people's heads or you're too low and they think, you know, you're not giving me enough validation of what I understand so I do think it's important that you tweak them to meet the needs of the family. (Pr11, HV)

Some parents did not reach the stage of engaging with R2R because they perceived that R2R was only for people who were struggling, or that the content was about things they already knew. This could influence their engagement both during the practitioner visit, and afterwards when using the website, as indicated in this quotation where a practitioner had primarily signposted the parent to the website rather than using the resources to facilitate a conversation.

She just like flashed me two different ones [cards] and it were like a little pack of 'em, but we didn't like go through 'em or properly speak about anything on 'em...I feel like a lot of it's to do with safe sleep and stuff like that, so because I know it I don't see the point in going and watching it. But yeah, if it was something I needed help or didn't know, then yeah, I'd watch it. (Pa15, birthing mother, HV, cards)

The perception that it was not for them could be partly due to parental factors, such as already having an older child, but also seemed to be influenced by how sensitively the practitioner introduced R2R. This reinforces the importance of conversations that are not seen as condescending, irrelevant or critical.

So, I think it was that first health visitor, I felt like she was just, she did the same thing with all the families and I thought, yeah, it was just patronising I thought. So, maybe a bit of a gauge, before you get a flash card out to tell you how to speak to your child, would be a good start. (Pa9, birthing mother, HV, cards)

One parent described how their initial perceptions were challenged after engaging with R2R, demonstrating the importance of the initial conversation with the practitioner to understand the purpose of the cards and how they might be personally relevant.

I know I've got tools to do that naturally already, so I initially felt like, "Oh, I'm not sure if I'm the target for these," but the more I understood about them, there was so much more that I just felt I did actually need.
(Pa8b, non-birthing father, PMH, cards+website).

Logic Model

The theory of change for R2R has been summarised in the logic model (Figure 1). As R2R was an established intervention at the time of the research, the rationale, inputs, intervention activities and impact components of the model were largely derived from workshops and documentary analysis. The mediating factors, outcomes and unintended consequences were informed by a combination of the workshops and insights from the qualitative interviews.

Outcomes such as a sense of wonder and enjoyment in parent-infant relationships are unpacked in Theme 1. Mediating factors include characteristics of the intervention that promote engagement and acceptability of the intervention, enabling conversations about parent-infant relationships to take place and information to be shared, these are described in Theme 2. Mediating factors also include increased parent knowledge and awareness of parent-infant relationships, knowledge to recognise and respond to infant cues and motivation to communicate with babies. While these can also be considered valuable, short-term outcomes from the intervention in their own right, we propose that for some parents, increased knowledge and awareness could lead to behaviour change in the form of more predictable, responsive parenting. This hypothesis is in line with the COM-B model and Behaviour Change Wheel (BCW, Michie, Stralen and West (2011) which posits three essential conditions for behaviour change as capability, opportunity and motivation. In the case of R2R, capability derives from increased knowledge and awareness, opportunity from the baby's physical presence and cues, and motivation from the desire to communicate with the baby. The intervention activities listed in the logic model also map on to several intervention functions within the BCW, including education, modelling and enablement.

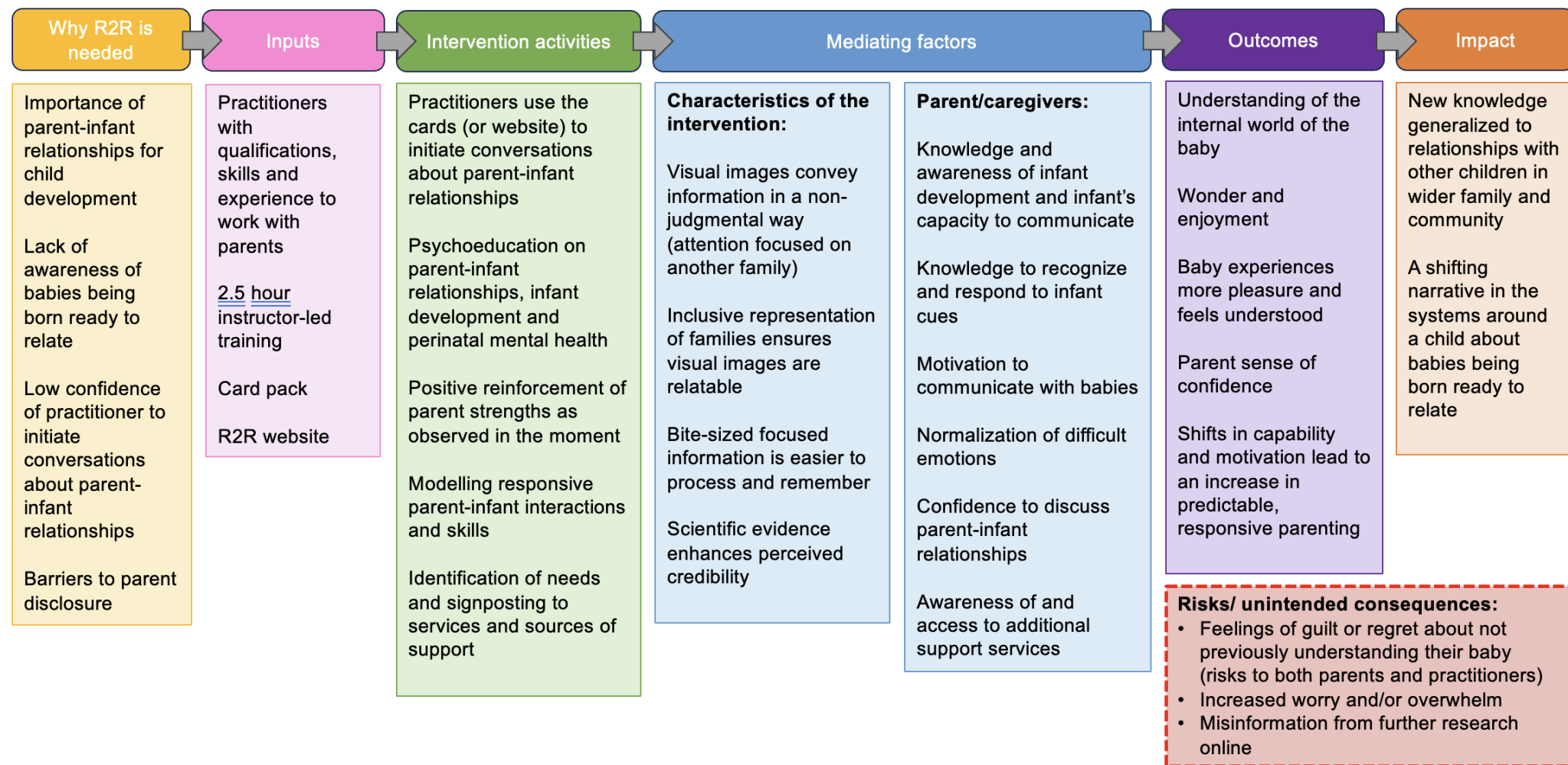
As is good practice in logic modelling, we considered potential contextual factors that could influence the impact of the model. These are listed at the bottom of figure 1. The intensity and duration of the intervention is specified as an implementation factor. R2R is designed to be flexible for practitioners to integrate into their practice. The intensity and duration of the intervention may therefore be a single session in a routine contact, or a parent may experience repeated exposure in circumstances where they are receiving more intensive support from practitioners. While we might expect that greater exposure to R2R increases the likelihood of behaviour change, this is not entirely consistent with parent and practitioner perceptions in the current study and previous internal research, in which participants described (albeit subjectively) transformational changes in their interactions with their baby arising from brief exposure to R2R during routine health visitor contacts. Future research on the effectiveness of R2R will need to consider, ideally by design, the impact of the intensity and duration of the intervention on outcomes.

It is also important to acknowledge that increased knowledge and awareness of parent-infant relationships can also result in unintended negative consequences as highlighted in Theme 3 and in the logic model (Figure 1).

Another strand in the logic model relates to the potential for R2R, through enabling open conversations about parent-infant relationships, to support practitioners in identifying needs and increasing parent awareness or access to additional support and services through signposting or onwards referrals. Where parent-infant relationships are significantly impaired and/or in the context of additional needs, multiple supports and specialist services may be required in order to achieve change.

This logic model represents version 1.0 of the theory of change for R2R. In line with best practice (Foundations, 2025; Mills et al. 2019; Skivington et al., 2021), the model should be refined over time, informed by new developments in the evidence base for R2R or the wider field of infant mental health, as well as in response to any adaptations to the content or format of the intervention itself.

Figure 1 Logic Model for R2R



Contextual factors that may exert influence over all or parts of the model:

Implementation: intensity/duration of intervention, whether used in combination with other services/support. Practitioners: previous training, knowledge of parent-infant relationships, own experiences of being parented, parent/carer themselves, confidence to facilitate conversations, interpersonal skills, digital literacy. Organisational: support for training and workforce development, strategic leadership support for R2R, competing priorities and time pressures. Infants: age, developmental status. Parents: experience of being parented, distress, mental health difficulties, perceived stigma, digital literacy

DISCUSSION

This is the first formal qualitative evaluation of parent and practitioner perspectives on the acceptability and impact of Ready to Relate, an intervention to promote parent-infant relationships. Our research highlights the complexity of this flexible intervention targeting parent knowledge and awareness of parent-infant relationships in order to produce a range of theorised positive impacts for parents, babies and practitioners and ultimately enhance parent-infant relationships. R2R has the potential to address the need for low-cost, accessible interventions, inclusive of diverse caregivers, that can be implemented by a range of practitioners including non-specialist staff, to prevent or intervene early in the development of parent-infant relationship difficulties (Hare et al., 2024; Gega, 2024). R2R can support conversations between practitioners and parents and facilitate the disclosure and identification of parent-infant relationship difficulties (Hunter et al., 2021) and has potential to shift wider narratives about the capacity of infants to interact and communicate with the people around them.

Our study found that participants were generally very positive about their experience with R2R suggesting that this intervention is acceptable to parents and practitioners. Perceived acceptability is an essential prerequisite (but not the sole determinant) of intervention effectiveness (Sekhon, et al., 2017). If an intervention is considered acceptable, recipients are more likely to engage with the intervention and adhere to recommendations thereby increasing the likelihood of improved outcomes (Rovane et al., 2020). Likewise, practitioners are more likely to deliver support as intended, which may have an impact on the overall effectiveness of the intervention (Proctor et al., 2009). Characteristics of the R2R materials that influenced acceptability and engagement were the focused, bite-sized information, use of inclusive visual images and the emphasis on scientific information about baby brain development. Drawing attention to the images, which participants described as interesting and inclusive, enabled a broader conversation about parent-infant relationships to develop, shifting the positioning of practitioners away from 'experts telling parents what to do' which can prevent parent engagement and limit disclosure (Wittowski et al., 2020). Given the sensitivities involved in such conversations and barriers to parent disclosure, these findings suggest that R2R has significant promise as a tool to improve practice and the identification of unmet relational needs.

Parents and practitioners also reported a range of positive outcomes from R2R for parents, babies and practitioners with impacts at multiple levels including in the individual, dyadic relationship, and service and community systems. The range of outcomes identified is perhaps surprising given that R2R is a relatively brief intervention that can be delivered in a single session or slotted into routine contacts with families. We would expect some, or all, of these outcomes to be achieved depending on the intensity with which R2R is delivered and the implementation context. An important factor in achieving positive outcomes was the skill of the practitioner to work with the flexibility of R2R and use the resources to personalise

and tailor the content to the needs, circumstances and goals of each parent or family. This flexibility poses a challenge for future evaluation in which conventional effectiveness evaluation requires standardised outcomes and consistent understanding of fidelity to the model.

Critically, the study finds that R2R is a relational intervention and ‘more than the materials’. This was evident in practitioner and parent perspectives on potential harm from the intervention. The presence, and quality, of the conversation facilitated by the practitioner could determine the positive or negative impact of R2R, emphasising the need to not underestimate (or under-invest in) the role of the practitioner. Necessary skills included building rapport and professional judgement about tailoring and pacing and some practitioners working with families with infants may need additional training to develop these skills. To mitigate against unintended harm, less experienced or confident practitioners may benefit from interactive training that draws on active learning techniques such as small-group triadic role play (clinician, parent, observer) and reflective discussion to further develop their relational communication skills (Jackson and Back, 2011). In parent-infant relationship work, it is also important to consider impacts of training and delivery of interventions on practitioners. In our study, practitioners shared that working in parent-infant relationships and the content of R2R can raise negative feelings, doubts or worries about their own experiences of parenting or being parented. Given current concerns about workforce wellbeing and rates of burnout, particularly in universal health visiting services in the UK, adequate supervision and support for practitioners needs to be carefully considered in future implementation plans for Ready to Relate and other similar resources and interventions (Phillips & Davenport, 2025). While there is now an online CPD version of the R2R training that facilitates the scaling up and reach of R2R in new localities, investment in ongoing training and supervision is likely to be essential in securing implementation fidelity and the wellbeing of practitioners. These findings also reinforce the importance of attending to unintended consequences in the process of developing logic models for, and evaluating, parent-infant relationship interventions (Bonell et al., 2015).

Several strategies were implemented to support the rigour of the current qualitative study, including transparency about the methods (i.e. preparation of protocol), a team-based approach to support reflexive engagement and ensure accuracy in the analytical process and gathering qualitative data to inform co-production of the logic model. A key limitation is that we have likely not heard from parents and practitioners who perceived the intervention less favourably (less likely to respond to invitations to participate due to use of gatekeepers in the recruitment process). The intervention was recognised by participants as having potential to address inequity in conversations about parent-infant relationships (linked to gender, ethnicity, deprivation, neurodiversity, disability), though this will need to be further examined in future research involving more diverse samples and with additional strategies to promote research inclusion, as recommended by the UK’s National Institute for Health and Care Research (NIHR, 2022). It is important to acknowledge that

although the study did not identify any specific barriers related to known inequalities, it is likely digital disadvantage poses a barrier to the use of the R2R website.

Given the lack of evidence for interventions in this field (Wright et al., 2023), innovation in practice coupled with processes for training, monitoring and evaluation that attend to the potential for harm should be encouraged. The qualitative insights from this research suggest that further mixed-methods evaluation is warranted with additional study sites and the new logic model provides a clear framework for future evaluation.

Conclusion

This research and the development of R2R is timely, particularly in the context of the 'long shadow' of the Covid-19 pandemic, with more babies not achieving developmental milestones (Hogg and Mayes, 2022) and historic under-investment in services aimed at addressing parent-infant relationships and infant mental health (particularly in the UK, see Darzi, 2024). R2R is a promising intervention with materials that are available in the public domain at no cost or in hard copy at very low cost. The relational context for this intervention is key to its impact, and it is important that the resources are used in conjunction with relevant training, professional judgement and skills in facilitating non-judgemental conversations with parents of infants. Further research to test the effectiveness and cost effectiveness of R2R on key child and parent outcomes is recommended and the logic model provides a useful planning tool for future evaluators.

REFERENCES

- Beebe B, Jaffe J, Markese S, Buck K, Chen H, Cohen P, Bahrack L, Andrews H, Feldstein S. The origins of 12-month attachment: A microanalysis of 4-month mother-infant interaction. *Attachment & Human Development*. 2010;12(1–2):1–135. doi: 10.1080/14616730903338985.
- Bowlby, J., Ainsworth, M., & Bretherton, I. (1992). The origins of attachment theory. *Developmental Psychology*, 28(5), 759-775.
<https://doi.org/10.1037/0012-1649.28.5.759>
- Bradford District Care Trust (BDCT). (2018). *Parent infant relationship resource cards (PIRRC) pilot evaluation*. BDCT.
<https://www.bdct.nhs.uk/wp-content/uploads/2024/12/PIRRC-evaluation-2018f.pdf>
- AUTHORS MASKED. *Ready to Relate: Parent interview themes*. Community Practitioner, Nov-Dec, pp.42-25.
<https://www.bdct.nhs.uk/wp-content/uploads/2020/02/A-preliminary-evaluation-of-the-Ready-to-Relate-Cards.pdf>
- Bergunde, L., Rihm, L., Lange, L. S., Darwin, Z., Iles, J., & Garthus-Niegel, S. (2024). Family mental health research–The importance of adopting a family lens in the perinatal period and beyond. *Journal of Reproductive and Infant Psychology*, 42(4), 565–568. <https://doi.org/10.1080/02646838.2024.2363090>
- Boldt, L. J., Kochanska, G., & Jonas, K. (2017). Infant attachment moderates paths from early negativity to preadolescent outcomes for children and parents. *Child Development*, 88(2), 584–596. <https://doi.org/10.1111/cdev.12607>
- Bonell, C., Jamal, F., Melendez-Torres, G. J., & Cummins, S. (2015). ‘Dark logic’: Theorising the harmful consequences of public health interventions. *Journal of Epidemiology and Community Health*, 69(1), 95–98.
<https://doi.org/10.1136/jech-2014-204671>
- Bowers, D., House, A., & Owens, D. (2011). Selecting samples for qualitative research. In *Getting started in health research* (pp. 55-60). Wiley-Blackwell, Oxford, UK.
- Darzi, A. (2024). Independent Investigation of the National Health Service in England. Department for Health and Social Care.
<https://www.gov.uk/government/publications/independent-investigation-of-the-nhs-in-england>
- Foundations (2025). Technical Guide to the Guidebook. Foundations What Works Centre for Children and Families.

<https://foundations.org.uk/wp-content/uploads/2025/05/guidebook-technical-guide-foundations.pdf>

Frosch, C. A., Schoppe-Sullivan, S. J., & O'Banion, D. D. (2021). Parenting and child development: A relational health perspective. *American Journal of Lifestyle Medicine*, 15(1), 45-59. <https://doi.org/10.1177/1559827619849028>

Gega, L. (2024). Debate: How much should nonspecialists be involved in mental health care for children and young people when resources are limited? *Child and Adolescent Mental Health*, 29(4), 391-393. <https://doi.org/10.1111/camh.12733>

Ghate, D. Developing theories of change for social programmes: co-producing evidence-supported quality improvement. *Palgrave Commun* 4, 90 (2018). <https://doi.org/10.1057/s41599-018-0139-z>

Hare, M. M., Landis, T. D., Hernandez, M. L., & Graziano, P. A. (2024). A systematic review of infant mental health prevention and treatment programs. Evidence-Based Practice, *Child and Adolescent Mental Health*, 9(1), 138-161. <https://doi.org/10.1080/23794925.2022.2140458>

Hogg, S. & Mayes, G. (2022). Casting long shadows: the ongoing impact of the COVID-19 pandemic on babies, their families and the services that support them. First 1001 Days Movement and Institute of Health Visiting. <https://parentinfantfoundation.org.uk/wp-content/uploads/2022/11/F1001D-Casting-Long-Shadows-FINAL-NOV-22.pdf>

Hunter, R., Ranger, S., & Ingram, L. (2021). Development and use of the Early Attachment Observation tool for infant mental health. *Journal of Health Visiting*, 9(3), 108-114. <https://doi.org/10.12968/johv.2021.9.3.108>

Jackson, V. A., & Back, A. L. (2011). Teaching communication skills using role-play: an experience-based guide for educators. *Journal of palliative medicine*, 14(6), 775-780. doi: 10.1089/jpm.2010.0493

W.K. Kellogg Foundation. (2004). Logic Model Development Guide (Foundation, 2004). W.K. Kellogg Foundation. <https://wkkf.issuelab.org/resource/logic-model-development-guide.html>

Kouvaras, S., Hassett, A., & Lumsden, V. (2022). Health visitors' experiences talking about difficulties with the parent–infant relationship. *Journal of Health Visiting*, 10(7), 292-302. <https://doi.org/10.12968/johv.2022.10.7.292>

Lumivero (2023) NVivo (Version 14) <https://www.lumivero.com>

Malloch, S., & Trevarthen, C. (2009). *Communicative musicality*. Oxford: Oxford University Press.

Malterud, K., Siersma, V. & Guassora, A. (2016). Sample Size in Qualitative Interview Studies: Guided by Information Power. *Qualitative Health Research*; 26(13), 1753-1760. <https://doi.org/10.1177/1049732315617444>

- McKay, S. (2024). *Maternal attachment and child outcomes: Analysis of the Millennium Cohort Study*. Parent-Infant Foundation.
<https://parentinfantfoundation.org.uk/wp-content/uploads/2025/05/Maternal-Attachment-and-Child-Outcomes-FINAL-1-1.pdf>
- Meins, E., Fernyhough, C., Wainwright, R., Das Gupta, M., Fradley, E., & Tuckey, M. (2002). Maternal mind-mindedness and attachment security as predictors of theory of mind understanding. *Child development*, 73(6), 1715-1726.
<https://doi.org/10.1111/1467-8624.00501>
- Michie, S., Van Stralen, M. M., & West, R. (2011). The behaviour change wheel: a new method for characterising and designing behaviour change interventions. *Implementation science*, 6(1), 42. <https://doi.org/10.1186/1748-5908-6-42>
- Mills, T., Lawton, R., & Sheard, L. (2019). Advancing complexity science in healthcare research: the logic of logic models. *BMC medical research methodology*, 19, 1-11. <https://doi.org/10.1186/s12874-019-0701-4>
- National Institute for Health and Care Research (NIHR). (2022). Research Inclusion Strategy 2022-2027. NIHR.
<https://www.nihr.ac.uk/about-us/who-we-are/research-inclusion/strategy-2022-27>
- Nivison, M. D., Fearon, P., Jenkins, J. M., & Madigan, S. (2026). Annual Research Review: The role of caregiver sensitivity in children's developmental outcomes—an umbrella review. *Journal of Child Psychology and Psychiatry*,
<https://doi.org/10.1111/jcpp.70087>
- O'Dea, G. A., Youssef, G. J., Hagg, L. J., Francis, L. M., Spry, E. A., Rossen, L., ... & Macdonald, J. A. (2023). Associations between maternal psychological distress and mother-infant bonding: a systematic review and meta-analysis. *Archives of Women's Mental Health*, 26(4), 441-452.
<https://doi.org/10.1007/s00737-023-01332-1>
- O'Higgins, M., Roberts, I. S. J., Glover, V., & Taylor, A. (2013). Mother-child bonding at 1 year; associations with symptoms of postnatal depression and bonding in the first few weeks. *Archives of women's mental health*, 16(5), 381-389.
<https://doi.org/10.1007/s00737-013-0354-y>
- Phillips, S., & Davenport, C. (2025). Health professionals' practice experiences of infant mental health. *Journal of Family and Child Health*, 2(2), 72-78.
<https://doi.org/10.12968/jfch.2025.2.2.72>
- Proctor, E.K., Landsverk, J., Aarons, G., Chambers, D., Glisson, C. & Mittman, B. (2009). Implementation research in mental health services: an emerging science with conceptual, methodological, and training challenges. *Adm Policy Ment Health Ment Health Serv Res*; 36(1), 24–34. <https://doi.org/10.1007/s10488-008-0197-4>

- Rovane, A. K., Hock, R. M., & January, S. A. A. (2020). Adherence to behavioral treatments and parent stress in families of children with ASD. *Research in Autism Spectrum Disorders*, 77, 101609. <https://doi.org/10.1016/j.rasd.2020.101609>
- Sekhon, M., Cartwright, M., & Francis, J. J. (2017). Acceptability of healthcare interventions: an overview of reviews and development of a theoretical framework. *BMC health services research*, 17(1), 88. <https://doi.org/10.1186/s12913-017-2031-8>
- Shoda Y., Mischel W., Peake P. K. (1990). Predicting adolescent cognitive and self-regulatory competencies from preschool delay of gratification: Identifying diagnostic conditions. *Developmental Psychology*, 26(6), 978–986. <https://doi.org/10.1037/0012-1649.26.6.978>
- Skivington, K., Matthews, L., Simpson, S. A., Craig, P., Baird, J., Blazeby, J. M., ... & Moore, L. (2021). A new framework for developing and evaluating complex interventions: update of Medical Research Council guidance. *BMJ*, 374. <https://doi.org/10.1136/bmj.n2061>
- Trevarthen, C., & Aitken, K. J. (2001). Infant intersubjectivity: research, theory, and clinical applications. *Journal of child psychology and psychiatry, and allied disciplines*, 42(1), 3–48. <https://doi.org/10.1111/1469-7610.00701>
- Tronick, E. Z. (1989). Emotions and emotional communication in infants. *American Psychologist*, 44(2), 112–119. <https://doi.org/10.1037/0003-066X.44.2.112>
- Weiss, C.H. & Connell, J.P. (1995). Nothing as Practical as Good Theory: Exploring Theory-Based Evaluation for Comprehensive Community Initiatives for Children and Families. In *New Approaches to Evaluating Community Initiatives: Concepts, Methods, and Contexts* (pp. 65-92), The Aspen Institute.
- Wittkowski, A., Vatter, S., Muhinyi, A., Garrett, C., & Henderson, M. (2020). Measuring bonding or attachment in the parent-infant-relationship: A systematic review of parent-report assessment measures, their psychometric properties and clinical utility. *Clinical Psychology Review*, 82, 101906. <https://doi.org/10.1016/j.cpr.2020.101906>
- Wright, B., Fearon, P., Garside, M., Tsappis, E., Amoah, E., Glaser, D., Allgar, V., Minnis, H., Woolgar, M., Churchill, R., McMillan, D., Fonagy, P., O'Sullivan, A., & McHale, M. (2023). Routinely used interventions to improve attachment in infants and young children: a national survey and two systematic reviews. *Health technology assessment (Winchester, England)*, 27(2), 1–226. <https://doi.org/10.3310/IVCN8847>
- Zeanah Jr, C.H. & Zeanah, P.D. (2018). Infant Mental Health: The Clinical Science of Early Experience. In Zeanah Jr, C.H. (Ed.). *Handbook of Infant Mental Health* (4th Ed., pp.5-25). New York (NY), Guildford Press.