

<b>Institution:</b> University of York		
<b>Unit of Assessment:</b> 4 - Psychology, Psychiatry and Neuroscience		
<b>Title of case study:</b> Evidence-based practice for improving parenting		
<b>Period when the underpinning research was undertaken:</b> 2013 – 2020		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>	<b>Role(s) (e.g. job title):</b>	<b>Period(s) employed by submitting HEI:</b>
Elizabeth Meins Fionnuala Larkin	Professor of Psychology Postdoctoral Research Associate in Psychology Associate Lecturer in Psychology	Jun 2013 – present Feb 2014 – Oct 2017  Sep 2016 – Mar 2019
<b>Period when the claimed impact occurred:</b> 2013 – 2020		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<p><b>1. Summary of the impact</b> (indicative maximum 100 words)</p> <p>Our research demonstrates that parents' mind-mindedness (the ability to 'read' the young child's mind) represents optimal parent–baby interaction. Parents' mind-mindedness in the first year of life also predicts wide-ranging positive aspects of children's development, particularly in children from disadvantaged backgrounds. We have developed intervention materials to facilitate parents' mind-mindedness, thus improving the quality of parent–baby interaction and enabling children to benefit from the positive outcomes associated with early mind-mindedness. The non-academic beneficiaries of this research are (a) parents who have accessed the intervention materials via healthcare professionals or by downloading our smartphone app, (b) practitioners such as midwives, health visitors, perinatal mental health teams and social workers in the UK and the USA who are using our intervention materials in their professional practice, and (c) UK national and regional policy makers who draw on our expertise.</p>		
<p><b>2. Underpinning research</b> (indicative maximum 500 words)</p> <p>The underpinning research is the result of an Economic and Social Research Council (ESRC) Professorial Fellowship (2014–2017; ES/K010719/1) awarded to Meins, with Larkin as the postdoctoral researcher, and an ESRC research grant (2018–2021; ES/R004706/1) for which Meins is the Principal Investigator and Larkin is a Co-Investigator.</p> <p>Mind-mindedness was originally defined by Meins (1997) as parents' tendency to treat their young children as individuals with minds of their own, and is measured in terms of a parent's ability to comment appropriately on their baby's thoughts and feelings during parent–baby interaction. Appropriate mind-related comments indicate an accurate interpretation of the baby's mind (e.g., saying the baby <i>wants</i> the car if she reaches towards it, or that the baby is <i>excited</i> if he squeals joyfully), whereas non-attuned mind-related comments index misinterpretations of the baby's thoughts or feeling (e.g., saying the baby is <i>bored</i> with the car when she is still actively involved in playing with it, or is <i>tired</i> in the absence of any overt behaviours indicating tiredness). Mind-minded interaction (i.e., high levels of appropriate comments, low levels of non-attuned comments) indicates optimal parent–baby engagement.</p> <p>One component of Meins' Professorial Fellowship capitalised on a socially diverse sample of families who had been studied longitudinally since the first year of life as part of previous ESRC awards for which Meins was Principal Investigator. The Fellowship research investigated whether mothers' mind-mindedness in the first year of life predicted (a) the security of mother–child attachment across the first four years of life, (b) children's callous-unemotional traits (not caring for other people's values or society's rules, lack of remorse, faking rather than feeling emotions) at age 10, and (c) children's educational attainment in standardised assessment tests (SATs) at ages 7 and 11. Appropriate mind-related comments predicted secure attachment and non-attuned mind-related comments predicted insecure attachment <b>(3.1)</b>. Appropriate mind-related comments predicted lower levels of callous-unemotional traits via their effect on children's age-4 emotion understanding <b>(3.2)</b>. Specifically in children from disadvantaged</p>		

backgrounds, mothers' early appropriate mind-related comments predicted better SATs performance at ages 7 and 11 **(3.3)**. These papers added to the large corpus of findings indicating that mind-mindedness predicts wide-ranging positive aspects of children's development. By intervening to facilitate mind-mindedness, it should thus be possible to impact positively on children's outcomes.

A second component of the Fellowship focused on developing and evaluating such intervention procedures to facilitate parents' mind-mindedness. The first intervention was developed through a collaboration with Durham University, King's College London and the South London and Maudsley NHS Foundation Trust. It used a video-feedback technique to facilitate mind-mindedness in mothers hospitalised on a residential mother-and-baby unit due to severe mental illness. The video-feedback intervention prompted the mother to consider what her baby was thinking or feeling at three specific moments during a short interaction between the mother and her baby that was filmed on their admission to hospital. The mother was encouraged to take her baby's perspective and consider what might be going on in the baby's mind at each of these three specific moments. This intervention was effective in improving mothers' mind-mindedness such that, at discharge, their mind-mindedness was no different from psychologically well mothers; control group mothers who were discharged after receiving standard care on the unit showed no improvement in mind-mindedness over time and were still significantly different from psychologically well mothers at discharge. The article reporting these findings **(3.4)** includes the developmental psychologist working at the mother-and-baby unit as an author. The effect of the intervention was maintained at follow up in the second year of life, with mothers who had received the intervention being significantly more likely than those in the standard care group to have secure attachment relationships with their toddlers **(3.4)**. Indeed, the level of secure attachment in the intervention group was marginally higher than that reported from meta-analytic data for non-clinical, middle class samples.

The second intervention is a smartphone app and linked website that was trialled with a community sample of mothers and babies. The app provided a daily alert to prompt mothers to consider what their baby was thinking or feeling at that moment in time. Mothers posted photographs or video clips to show what was on their babies' minds, and the research team commented on these posts in order to facilitate mind-mindedness. For example, if a post was deemed to be mind-minded (e.g., "Molly was surprised to see a squirrel" accompanied by a photograph of the baby looking surprised), the researcher replied in the first person from the baby's point of view (e.g., "Oh, what's that?") or responded with a friendly comment, designed to provide reinforcement and positive feedback (e.g., "Great mind-reading!"). Where the comment was not mind-related (e.g., "We're heading out to the shops"), the researcher responded with a further prompt for mind-mindedness (e.g., "How does Emily feel about shopping?"), or again modelled speaking on behalf of the baby (e.g., "Let's go, Mummy!"). The users then viewed the research team's response in the app. Mothers who had received the app intervention were more mind-minded than control-group mothers, and the app was equally effective in facilitating mind-mindedness in teenage mothers and older mothers. Indeed, young mothers who had received the intervention were more mind-minded when interacting with their babies than were the older mothers in the control group **(3.5)**.

### **3. References to the research** (indicative maximum of six references) **(York staff in bold)**

All of the references below are published in peer-reviewed journals. References **(3.1)**, **(3.2)** and **(3.3)** are being returned to REF 2021.

- 3.1. Meins, E., Bureau, J.-F., & Fernyhough, C. (2018).** Mother–child attachment from infancy to the preschool years: Predicting security and stability. *Child Development*, 89, 1022–1038. DOI: [10.1111/cdev.12778](https://doi.org/10.1111/cdev.12778)
- 3.2. Centifanti, L. C. M., Meins, E., & Fernyhough, C. (2016).** Callous-unemotional traits and impulsivity: Distinct longitudinal relations with mind-mindedness and understanding of others. *Journal of Child Psychology and Psychiatry*, 57, 84–92. DOI: [10.1111/jcpp.12445](https://doi.org/10.1111/jcpp.12445)

- 3.3. Meins, E.,** Fernyhough, C., & Centifanti, L. C. M. (2019). Mothers' early mind-mindedness predicts educational attainment in socially and economically disadvantaged British children. *Child Development*, 90, e454-e467. DOI: [10.1111/cdev.13028](https://doi.org/10.1111/cdev.13028)
- 3.4. Schacht, R., Meins, E.,** Fernyhough, C., Centifanti, L. C. M., Bureau, J. F., & Pawlby, S. (2017). Proof of concept of a mind-mindedness intervention for mothers hospitalized for Severe Mental Illness. *Development and Psychopathology*, 29, 555-564. DOI: [10.1017/S0954579417000177](https://doi.org/10.1017/S0954579417000177)
- 3.5. Larkin, F.,** Oostenbroek, J., Hayward, E., & **Meins, E.** (2019). Proof of concept of a smartphone app for facilitating mothers' mind-mindedness. *PLoS ONE* 14(8): e0220948. DOI: [10.1371/journal.pone.0220948](https://doi.org/10.1371/journal.pone.0220948).

#### 4. Details of the impact (indicative maximum 750 words)

We have developed three types of intervention to facilitate parents' mind-mindedness:

- A video-feedback protocol for use by developmental and clinical psychologists treating mothers suffering from mental illness.
- A programme of activities that can be incorporated into parents' daily routine in order to increase mind-mindedness. The programme is accompanied by an animated film (*Mind-reading for beginners*) that explains the construct of mind-mindedness. The programme or its individual components can be delivered by midwives, health visitors, psychologists or social workers to individual parents or as part of group sessions.
- A smartphone app (BabyMind©) that can be freely downloaded by parents and professionals, supported by a dedicated website (<http://baby-mind.org>).

These intervention materials have been developed in conjunction with professionals likely to use them in their professional practice and with parents themselves. By increasing parents' mind-mindedness, these intervention materials have a direct positive impact on parent-baby interaction. In addition, enabling parents to be more mind-minded should result in the children benefitting from the positive aspects of development that are predicted by mind-mindedness.

#### 1. Mothers with severe mental illness

Mothers hospitalised with their babies on the mother-and-baby unit at the Bethlem Royal hospital in South London have been receiving the individually-administered video-feedback intervention that Meins and colleagues developed. The intervention has been used throughout the current assessment period "as standard clinical practice" in treating the 520 mothers who have been admitted to the unit and "benefitted from this intervention" (5.1). A mother who had been resident on the unit described her experience: "I used to think, 'Well, he's just a baby'. I didn't think they had those kinds of emotions... It's not until you experience the joys of understanding them as a human being, as a person, and seeing them respond to you, there's an immense joy from that. That's when it all changes and it's beyond just meeting their practical needs. Once you see the response, it's just almost like a wave, and you just want more and more and more. And then you find it's not something you've learnt, it's something you do naturally" (5.1). This mother believed that all new mothers and fathers would benefit from learning how to be mind-minded (5.1).

In 2018, the intervention was extended to all mother-and-baby units in London, with Meins providing the intervention materials and training the units' staff (5.1). Since 2018, Coombe Wood mother-and-baby unit, run by Central and North West London NHS Trust, has used the intervention materials in a weekly group session to facilitate mothers' mind-mindedness. During the assessment period approximately 275 mothers have received the intervention procedures (5.2). Staff have also collected feedback from mothers, and reported that "mothers have found the sessions very useful... and their responses have been extremely positive including specifically that the groups helped them understand their babies and themselves better" (5.2). The Consultant Clinical Psychologist and Professional Lead for Perinatal Psychology and Psychotherapy in Central and North West London also stated that the programme of activities provides "wonderful practical ways to help parents access ideas about how to understand and think about others' minds in order to help with parenting and within their other close relationships" (5.2).

In April 2018, Meins provided training in mind-mindedness to the Perinatal Mental Health teams in Bradford, Bristol and Gloucestershire (combined birth rate of 21,000 per year) (5.3). The mind-mindedness intervention materials have been used since this time in their work with mothers in community-based settings.

## 2. At-risk or vulnerable families in the community

Impact in this area is the result of organisations commissioning Meins to provide training and information on mind-mindedness due to our findings showing that mind-mindedness predicts positive aspects of children's development, particularly in children from disadvantaged backgrounds. These organisations have integrated our intervention materials into their professional practice in order to facilitate mind-mindedness in the parents with whom they work. Family Action, as part of Better Start Bradford, has integrated our programme of activities into their intervention materials targeting over 400 families living in social and economic deprivation (5.4). In using our intervention to facilitate mind-mindedness, Family Action has helped these "disadvantaged parents understand their babies and become more effective in their parenting" (5.4).

Flying Start is a Welsh Government programme targeting low socioeconomic status families to improve children's outcome. In March 2018, Meins provided training on mind-mindedness to all Flying Start health visitors and community nursery nurses (around 60 professionals) in order for them to embed our programme of activities to facilitate parents' mind-mindedness into their work with vulnerable families (5.5). Summary statistics for the most recent year available (2018-2019) report that "36,367 children benefited from Flying Start services in Wales" during this year (5.5b).

Family Futures is a non-profit organisation based in Michigan that aims "to create communities in which all children achieve their full potential". Staff from Family Futures contacted Meins and arranged a meeting during a conference in the USA in 2016. Meins subsequently provided the organisation with the intervention programme of activities to facilitate mind-mindedness. The organisation stated that the intervention materials "greatly strengthen and supplement the information offered by Family Futures" (5.6). By early 2018, our materials informing parents about their children's development and providing tips and advice on how to be mind-minded had been administered to 700 families (5.6).

Meins has provided training to practitioners working on Special Care Baby Units (SCBUs) in hospitals in London. These SCBUs are attempting to facilitate parents' mind-mindedness in order to help parents form a relationship with their babies despite the barriers to extended physical contact inherent in an intensive care hospital setting. In the first year of using the training (until May 2019) in one of the London-based hospitals, staff had used our programme of activities to help around 30 families establish a better understanding of their baby and develop relationships with their babies (5.7).

In 2017, East Lothian Council commissioned Meins to provide training on mind-mindedness to health visitors, nursery nurses, family support workers, social workers and educational psychologists. Forty-one practitioners who had received the training were then involved in a Council-run project based at five nurseries (providing care for around 200 children) that aimed to improve practitioners' own mind-mindedness in order to improve the behaviour of the children in their care (5.8). All of the nurseries were selected because they are in areas of high social and economic deprivation. The practitioners reported that taking a mind-minded approach had a dramatically positive impact on the behaviour of challenging children. For example, rather than disciplining a child who was ripping posters from the wall, one practitioner described how she instead commented on how the child was really *enjoying* doing so. This led to the child putting the posters back on the wall in a different configuration, and the practitioner observed that the child *thought* that the posters looked better like that. The child then calmly went into lunch without prompting, which was "vastly different to how he would have reacted" (5.8). The practitioners also reported that implementing the training had a positive impact on themselves and their co-workers. In summarising this impact, East Lothian's Early Years Specialist



Educational Psychologist stated that “A mind-minded approach in Early Learning and Childcare settings has the potential to transform the wellbeing of both children and practitioners” (5.8).

### 3. Children and parents in general

Impact in this area is the result of organisations contacting Meins to request training and information on mind-mindedness due to our findings showing that mind-mindedness represents optimal parent–baby interaction. These organisations have integrated our intervention materials into their professional practice in order to facilitate mind-mindedness in the parents with whom they work. Impact has also been achieved through the development of a smartphone app to facilitate parents’ mind-mindedness directly, rather than via healthcare professionals or organisations.

Meins was commissioned to provide training to all health visitors in North Yorkshire, in which there are around 11,000 births per year (5.9). Training was delivered to 114 health visitors during 2016, and since this time they have been using our programme of activities during their home visits with families across the first year of the child’s life (5.9). As well as facilitating mind-mindedness in parents, health visitors reported that receiving the mind-mindedness training enabled them “to feel much more confident about assessing the quality of the parent–child relationship” (5.9). Moreover, the training also impacted on the health visitors’ own relationships with the new parents under their care, with them becoming “more aware of the mothers’ experiences of being a new parent... and mind-minded about the new mothers’ thoughts and feelings” (5.9).

We upgraded the BabyMind© app used in the research trial (3.5) to make it suitable for general download. Android and iOS versions of the app went live on 28 December 2020.

### 4. Influence on policy

It is policy for all practitioners in all East Lothian Early Learning and Childcare settings (covering 1,000 births per year) to receive training in mind-mindedness in order to become more mind-minded in their interactions with the children in their care (5.8). A House of Commons Health and Social Care Committee report (published 26 February 2019) highlighted Flying Start as a model of best practice: “We recommend that the Government, working with local areas and the voluntary sector, develop a programme into which children and families who need targeted support can be referred, drawing on the experience of ... Flying Start in Wales” (5.5c). A report published by the Early Intervention Foundation, with the support of Public Health England and the Department for Education, highlighted mind-mindedness as a “factor which makes a difference” for children’s developmental competencies (5.10).

### 5. Sources to corroborate the impact (indicative maximum of 10 references)

- 5.1. (a-c) Evidence from South London and Maudsley NHS Foundation Trust: testimonials and interview.
- 5.2. Testimonial from Consultant Clinical Psychologist and Professional Lead for Perinatal Psychology and Psychotherapy, Central and North West London NHS Foundation Trust.
- 5.3. Portfolio of correspondence with Avon and Wiltshire Mental Health Partnership NHS Trust.
- 5.4. Testimonial from Perinatal Support Service Manager.
- 5.5. Evidence relating to *Flying Start*: (a) training sessions; (b) Flying Start Statistical Release, July 2019; and (c) House of Commons Health and Social Care Committee Report, 2017-19.
- 5.6. Portfolio of evidence relating to *Family Futures*.
- 5.7. Summary information on use of mind-mindedness training in professional practice.
- 5.8. Testimonial from Early Years Specialist Educational Psychologist, East Lothian Council.
- 5.9. Testimonial from Commissioning Team, Harrogate and District NHS Foundation Trust.
- 5.10. Early Intervention Foundation report *Key competencies in early cognitive development: Things, people, numbers and words*.