Institute of Health Visiting
Excellence in Practice

ADBB Study

A mixed-methods feasibility and acceptability study of using the Alarm Distress Baby Scale (ADBB) within universal health visiting practice in England.

Authors: Sharin Baldwin, Michael Fanner, Hilda Beauchamp, Vicky Gilroy, Alison Morton, Jane Barlow.

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The Institute of Health Visiting (iHV) is an independent charity, professional body and centre of excellence for health visiting, established to strengthen the quality and consistency of health visiting for the benefit of all children, families and communities.

Research team:

Principal Investigator & Research Lead
Dr. Sharin Baldwin
Institute of Health Visiting,
Western Sydney University

Co-investigator & Researcher
Dr. Michael Fanner
Department of Social Policy & Intervention,
University of Oxford

Mental Health Lead
Hilda Beauchamp
Institute of Health Visiting

Project Lead
Vicky Gilroy
Institute of Health Visiting

Academic advisor
Professor Jane Barlow
Department of Social Policy & Intervention,
University of Oxford

The research team would like to acknowledge:

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Executive Summary

During early childhood, from pregnancy to age five years, our brains develop at an amazing rate – faster than at any other time in our lives. In particular, the critical first 1001 days are a time when the quality of the relationships that babies experience shape their developing brains in a way that lays the foundations for their future health and wellbeing.

Babies are born with amazing social abilities. They are ready to relate and engage with the world around them, communicating how they feel through their behaviours. It is normal for babies to use withdrawal behaviours (such as looking away, closing eyes, sneezing) to control the pace of social engagement. Sustained social withdrawal behaviours, however, could suggest an 'early alarm signal' for relational challenges and a coping mechanism that babies may use if their initial protests are not responded to.

The Alarm Distress Baby Scale (ADBB) is an observation aid, validated by research, used to observe how babies are interacting with the world around them and to assess for social withdrawal. The short version of the scale (the m-ADBB) allows babies who may be in need of a more thorough assessment and support to be quickly identified. We carried out a mixed methods study to explore the acceptability and feasibility of using the full ADBB and the modified ADBB (m-ADBB) as part of routine health visiting practice in England.

We asked the following research questions:

1. How acceptable and feasible are the ADBB and m-ADBB training programmes?

2. How acceptable and feasible is the use of the ADBB and m-ADBB as part of routine care within the health visiting provision in England?

3. What are the facilitators and barriers affecting the implementation of the ADBB and m-ADBB in health visiting practice?

Health visitors from two National Health Service (NHS) sites in England were trained in the use of the ADBB and m-ADBB. To align with routine practice and local service delivery models, it was agreed that five health visitors within specialist roles would be trained in the full ADBB and 20 in the m-ADBB. It was envisaged that the m-ADBB would be used at all 6-8 week health visitor contacts and the full ADBB would only be used, based on clinical judgement, if concerns were identified using the m-ADBB. We collected quantitative and qualitative data from these health visitors over a four-month period. We also interviewed two service managers. We analysed the data and used the theoretical framework of Normalisation Process Theory to provide explanations of the implementation process.

Key Findings

Acceptability

- The findings demonstrate that both training programmes for the ADBB and m-ADBB were rated very highly by all health visitors in the study. Use of the ADBB/m-ADBB by health visitors generated significant interest from colleagues within the service, as well as external partner agencies.

- Both training programmes (ADBB and m-ADBB) were perceived by participants as having provided health visitors with a new theoretical perspective, additional knowledge and skills, and a new vocabulary to explain their observations of a baby's behaviour and to support their interactions with parents.

- The new ADBB and m-ADBB knowledge was described as having been gradually embedded into the health visitor's existing skillset, and the ability to observe babies through this new 'lens' was felt to have gradually become an integral part of their practice.

Use of scales

- During the four-month study period, 248 postnatal contacts were carried out for babies aged 6-8 weeks and the m-ADBB was used with 225 babies (91%). The main barriers to using the scale were the baby either sleeping, feeding or being unsettled during the visit.

- Behaviour concerns following assessment using the m-ADBB were identified in 23 of the 225 babies (10%). Support offered to these families included the use of existing interventions available to the health visiting service. This included follow-up visits, emotional wellbeing visits, video interaction guidance (VIG), referrals to specialist perinatal mental health services and other local targeted and specialist support services (such as the voluntary sector mental health support, orthoptics, or dietetics).

- A small number of m-ADBB-trained health visitors sought support from the full ADBB-trained health visitors. This was mainly to discuss individual cases of concern and to seek reassurance, especially in the early days of implementation.

- In the majority of cases when concerns relating to baby behaviour were identified using the m-ADBB, health visitors felt confident in interpreting the m-ADBB score and were able to provide families with the required support and intervention based on their holistic assessment.

- Health visitors trained in the full ADBB felt that this additional training enhanced their specialist knowledge and skills in terms of working directly with families and offering support to mainstream health visitors. However, only one out of the five ADBB health visitors received a referral for a full assessment following concerns identified at a routine 6-8 week m-ADBB assessment. The appointment for the full ADBB assessment was scheduled to take place after the study interview. As such, we are unable to comment on its feasibility in terms of use within routine health visitor practice as a second stage of assessing the baby, where significant concerns were identified on the m-ADBB.

Integration within routine practice

- The m-ADBB was reported to be acceptable by health visitors for use in the 6-8 week contacts and was perceived to require minimal additional time and effort to be incorporated into the routine activities that health visitors already carried out (such as weighing the baby).

- Managers were supportive of the integration of the m-ADBB into routine practice. Furthermore, good organisational and managerial support were perceived by participating health visitors to be key enablers to the implementation of the ADBB/m-ADBB, and facilitated practitioners being able to engage with the training and subsequent use of the scales as part of routine practice.

- All 24 (100%) participants (22 health visitors and two managers) would recommend the use of the m-ADBB in routine health visiting practice. This recommendation is based on the way in which the m-ADBB was used in the current study – to enhance health visitor knowledge and skills to identify behaviours that may indicate that the baby is withdrawn and to facilitate appropriate support for families, and not as a screening tool.

Conclusion

This study provides useful information about the feasibility and benefits of training health visitors in the ADBB/m-ADBB in the context of health visiting in England and how, once trained, health visitors can integrate their new learning into routine health visitor practice. A number of recommendations for practice and further research have been made (page – 36).

Chapter 1. Introduction and background

1.1 Why the earliest years matter

Across the world, there is a growing body of research on the importance of supporting the earliest years of life. The period from pregnancy to age two has been identified as being the critical first 1001 days, where babies' brains are developing faster than at any other time of their lives[1]. During this time, the quality of the relationships that babies experience shape their brains and lay the foundations for their future health and wellbeing[2]. Early childhood is also a significant window of opportunity in terms of promoting the best possible interactions between parents and babies, and identifying concerns that suggest additional support might be needed[3,4,5].

1.2 Understanding social withdrawal in babies

Babies are born with amazing social abilities. They are ready to relate and engage with the world around them, communicating how they feel through their behaviours. However, they are also very sensitive to being over or under-stimulated, or not getting the responses they were expecting. Even within the context of a loving, responsive caregiving relationship, it is normal for a baby to use 'fleeting' withdrawal behaviours, such as looking away or closing their eyes, to regulate the flow of social interaction when things feel a bit too much[6,7].

However, sustained social withdrawal behaviours are among the first coping strategies that a baby may use if they face prolonged relational challenges, after their initial protests are not responded to[8]. In the short term, we can think of this as being protective because the baby saves energy by moving less, crying less and engaging less in the world around them. However, longer term, if a baby is withdrawn from their social-emotional and learning environment, they will experience poorer emotional, behavioural, cognitive and language outcomes[9]. Sustained social withdrawal behaviours can act as an 'early alarm signal', prompting further assessment to understand what is going on for the baby.

Health visitors are skilled in supporting parents to understand how babies use their behaviour to communicate what they need. If parents can respond quickly to meet these needs, they help their baby to feel safe, loved and understood. There are a range of underlying reasons for a baby displaying social withdrawal behaviours[10] (see Table 1 below). Where health visitors are able to identify concerns about a baby's behaviour or early relationships, they can work with the family to ensure that they get the right support needed[11]. Getting skilled help early on can make a big difference to the whole family and stop problems from developing or getting worse.

Table 1. Factors affecting babies' social withdrawal behaviours[10]

Parental Factors	Infant Factors	Environmental Factors
Mental Illness	Tiredness, illness	Starting/changing daycare
Domestic violence and abuse	Prematurity	Change in contact arrangements where parents are separated
Substance misuse	Autistic Spectrum Disorders	Housing
	Chronic organic illness (Prader-Willi Syndrome, Cleft lip and/or palate, congenital heart disease, foetal alcohol syndrome)	Poverty
	Deafness	
	Malnutrition	

1.3 The development and modification of the ADBB

The Alarm Distress Baby Scale (Appendix 1) was developed in 2001 by Guedeney and Fermanian as a way for healthcare practitioners to identify social withdrawal in babies aged from birth to 24 months[12]. It consists of 8 observational items:

1. Facial expression
2. Eye contact
3. General level of activity
4. Self-stimulation gestures
5. Vocalisations
6. Briskness of response to stimulation
7. Ability to initiate and maintain a relationship
8. Ability to generate and sustain attention

During a 10–15-minute period of observing the practitioner or parent in a structured interaction with the baby, each item is rated from 0 to 4, where 0 refers to no unusual behaviour observed and 4 referring to significant unusual behaviour observed. The overall score reflects an interpretation of the baby's behaviour in a given situation, with an overall score of 5 or above being indicative of social withdrawal.

A number of studies have shown that the scale has good validity and reliability within different countries, populations and settings[8]. A modified version of the ADBB was developed and piloted by Matthey and colleagues in Australia, where items 4 and 6 were removed as they were difficult to score, and items 7 and 8 were combined as they were found to measure similar behaviours[13]. The resulting m-ADBB (modified ADBB) (Appendix 2) is therefore a 5-item scale assessing:

1. Facial expression
2. Eye contact
3. Vocalisations
4. Activity
5. Relationship

Each item is scored from 0 to 2. If the combined score for all five items is 2 or above, it indicates the need for a repeat assessment. The m-ADBB enables a quicker initial assessment of babies who may need extra support, which may include further assessment using the full ADBB.

1.4 The use of the ADBB by health visitors

During a visit to Denmark in February 2022, Her Royal Highness The Princess of Wales was particularly interested to observe how health visitors, who were part of the Copenhagen Infant Mental Health Project, were using the ADBB to routinely screen for socioemotional problems in babies. Most of the health visitors involved in this project reported that the ADBB made a positive contribution to their work[14]. Her Royal Highness was keen to explore whether a similar approach could be introduced with health visitors in England and, on her return from Denmark, convened a meeting to share information with key sector contacts in the UK.

As Specialist Community Public Health Nurses registered and regulated by the Nursing and Midwifery Council (UK), health visitors provide a crucial 'safety net' for babies. Through their universal reach to all families, they can offer skilled holistic assessment and establish trusting, therapeutic relationships that enable families to disclose need and identify the most appropriate and acceptable support. However, despite one of the six High Impact Areas for health visiting in England being to 'support maternal and family mental health'[15], there is wide variation in the approaches used and the support offered to families. In addition, the latest national 'Healthy Child Programme: Schedule of Interventions Guide', replacing the 2009 Healthy Child Programme, states that where concerns about early relationships and infant mental health and wellbeing are identified, an assessment should be completed to understand the family needs and strengths[11]. There is, however, no information provided within the Schedule of Interventions with regard to which validated assessment scales or tools to use. While health visitors are trained to observe parent-infant interactions, in the absence of national commissioning guidance or robust evidence to support the use of any specific tool to supplement their observations, this is left to local decision-making.

Based on published evidence and from talking to health visitors and service managers, it is clear that the selection of a tool or outcome measure to use within health visiting is difficult. Health visitors need a tool that is: easy to use; doesn't involve additional equipment or require lengthy training; aligns well with the existing skills of the health visitor; and, most importantly, is acceptable both to health visitors and the families they work with.

However, there are significant limitations to most of the measures that have been developed over recent years to assess parent-infant relationships and especially for use by health visitors as part of their routine care of families[16].

Therefore, we wanted to explore whether the ADBB might be acceptable and feasible for use by health visitors in England. We were particularly interested to know if the modified scale, the m-ADBB, would be more appropriate for use by health visitors, as suggested by the Danish research[17], and provide them with additional skills to enhance their observations of early parent-infant interactions. Although there was strong evidence to suggest that the ADBB/m-ADBB had transcultural validity, it was yet to be studied within the context of health visiting in England. This study aimed to fill this evidence gap.

Chapter 2. Study overview

2.1 Training

To recruit health visitors to a study exploring the use of the ADBB/m-ADBB within routine care, we first had to find health visitors willing to be trained in the scales and find a training provider who was offering a programme in English.

Acutely aware of the current workforce shortages in health visiting, we were delighted to secure preliminary agreements with two NHS sites, both of which had enough workforce capacity to accommodate the project and had appropriate referral pathways in place to support the process. To align with the local delivery of the health visiting services, together they identified five health visitors (four Specialist Health Visitors in Perinatal and Infant Mental Health and one health visitor with a special interest in Perinatal and Infant Mental Health) and 20 health visitors who could be released to attend training in the ADBB and the m-ADBB respectively. All health visitors maintained their usual workload/caseload throughout the training period.

There is currently no UK-based provider offering training in the ADBB or m-ADBB, but we were able to enrol our participating health visitors onto a virtual training programme provided in English by France-based company Humagogie. The five health visitors completed the full ADBB training between 23 March and 22 June 2023. This entailed 20 hours of synchronous teaching and 45 hours of self-directed learning. Content included the evidence base and research on social withdrawal, the scoring and assessment methodology of the ADBB, situational exercises involving analysis and discussion of videos, and test-retest of difficult items. Participants were asked to independently rate 20 videos of babies as part of a final certification process. All five health visitors were successfully awarded their ADBB certification, meeting reliability criteria to a very high standard. This certification is valid for two years, after which it is recommended that updates are attended to address any bias that may have developed.

Humagogie also provided a 3-hour webinar-based training in the m-ADBB for the 20 health visitors on 23 June 2023. Content included an introduction to the theoretical basis of the m-ADBB and its relationship with early psychopathology, validation of the scale, an explanation of the 5 items on the scale, and practise with the scale using some selected training videos.

2.2 Pathway co-design

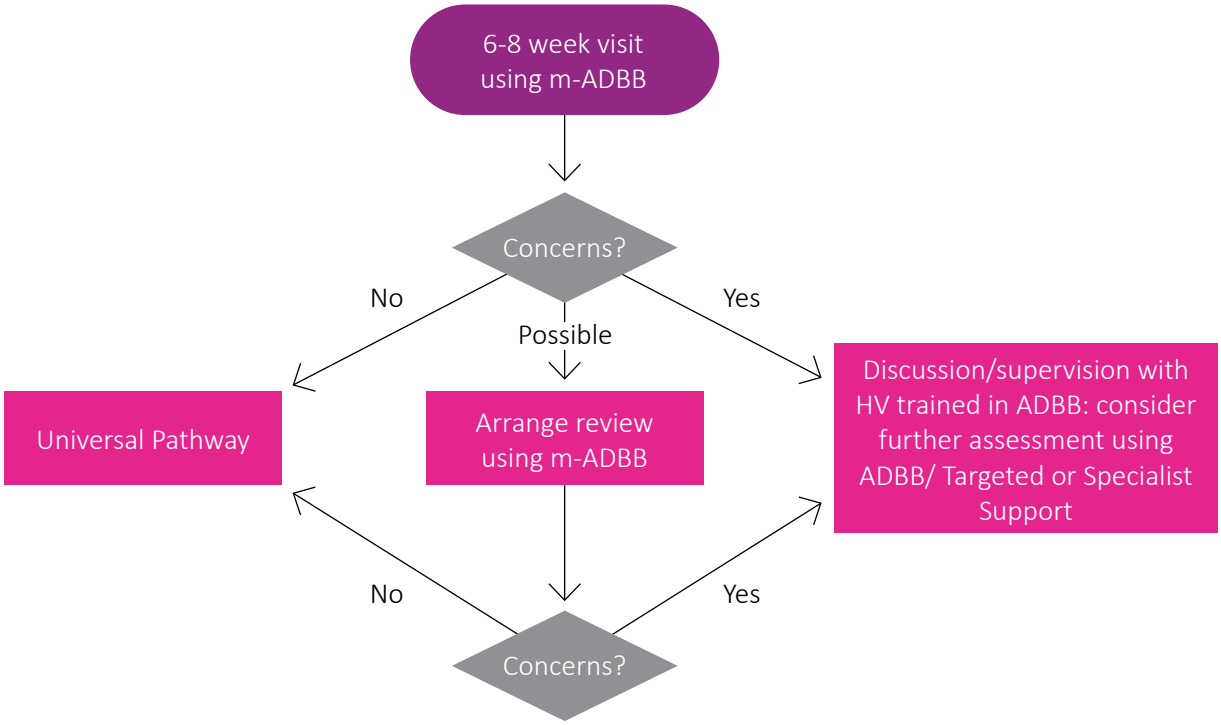
We held two workshops with the health visitors and service managers from the participating sites to explore how the ADBB and m-ADBB could be implemented for the purpose of our study, as neither scale was in common use within healthcare services in the UK.

Results from studies in Australia[13] and Denmark[17] suggest that the m-ADBB is more appropriate for first line screening, with the ADBB being used to further assess babies for whom concerns about social withdrawal were identified. Using the scales in this way was also recommended by the training provider Humagogie and was felt to be an acceptable process to both sites.

2.2.1 Pathway

The following pathway was agreed after discussion with and feedback from both sites:

Figure 1: m-ADBB pathway for 6-8 week visit



At the mandated 6-8 week postnatal contact, the health visitors trained in the m-ADBB were to use their enhanced observational skills to identify babies who may need additional support. As the m-ADBB is designed as an aid to observation, it wasn't to be 'administered' in the sense that other screening tools might be. This was to align to the UK criteria on use of screening tools[18] and the requirements of the Healthy Child Programme to identify concerns, rather than introduce a new screening tool for this aspect of infant development[11]. The health visitors were to observe how the baby reacted to stress during a structured interaction of 10-15 minutes, such as being undressed for weighing and measuring, or having a nappy change, rather than in a free play session. The observation was to be undertaken in relation to how the baby was interacting with the parent/carer, directly with the health visitor, with another practitioner, or a combination of those.

Where the health visitor didn't identify any concerns, they were to explain to parents what they had observed, being specific about strengths and moments of attuned interactions they had noticed and offering any additional information or signposting to resources that would strengthen interactions between parents and babies, as per usual practice (Universal Pathway).

If the health visitor identified possible concerns about the baby's behaviour in terms of social withdrawal, they were to offer a follow-up home or clinic visit according to their usual service pathway, in addition to the above.

Where a definite concern was identified by the health visitor, either at the initial 6-8-week contact or confirmed at a follow-up, they were to offer sensitive exploration and assessment of factors that may be impacting on the baby and agree with the family what extra support would be suitable and acceptable, as per their usual enhanced pathway offer (Targeted/Specialist Pathway).

The health visitors trained in the m-ADBB were encouraged to seek consultation and further guidance from the health visitors trained in the full ADBB and could arrange further assessment or a joint visit at any point.

There was some initial concern expressed by the health visitors trained in the full ADBB about the potential numbers of referrals they may receive and whether or not they could absorb the additional work within their existing caseloads and responsibilities. Both sites agreed that the specialist health visitors trained in the full ADBB would act primarily in a consultative and supervisory capacity, offering a full ADBB assessment only when a health visitor using the m-ADBB had identified concerns and requested additional assessment, and where a parent had agreed to be referred for further support. In addition, they would be the primary point of contact for each site, supporting the research process, and ensuring robust data collection.

2.2.2 Record keeping

For the purpose of the study, the participating sites decided that there was no requirement for health visitors to formally document a m-ADBB or ADBB score in the baby's health record (as these represented research findings, rather than routine data collection), and no expectation to discuss any finding as a numerical 'score' as such with parents. They anticipated that the additional skills from the training would enhance the health visitors' interpretation of the behaviours they were observing during routine contact with babies and their families, within the context of observations made as part of the wider consultation. Health visitors would then mentally rate their observations against the items in the m-ADBB or ADBB to guide their conversations with parents, using their clinical judgement and shared decision-making with parents, as to whether a further follow-up was required. Record keeping followed usual service protocols, reflecting the voice of the baby, making note of any specific concerns and providing a rationale for clinical decision-making.

2.2.3 Site support

We offered monthly optional site drop-in sessions for additional support to all participants during the implementation period, with service managers being on hand for any site-specific or operational queries.

2.3 Research aim and questions

The aim of our study was to explore the acceptability and feasibility of using the ADBB and m-ADBB to identify social withdrawal in babies as part of routine 6-8-week visits carried out by health visitors.

We hoped that this study would provide further insight into whether these scales could be used as tools to support and enhance practice within health visiting services in England.

We asked the following research questions:

1. How acceptable and feasible are the ADBB and m-ADBB training programmes?
2. How acceptable and feasible is the use of the ADBB and m-ADBB as part of routine care within the health visiting provision in England?
3. What are the facilitators and barriers affecting the implementation of the ADBB and m-ADBB in health visiting practice?

2.4 Method

2.4.1 Study design

We used a mixed methods exploratory design, considering it to be the best fit to answer the research questions. This method allowed us to collect both qualitative and quantitative data at the same time.

2.4.2 Study setting and participants

We collected data from health visitors in the two participating NHS sites, one in Central England and the other in Northern England. All five health visitors who were trained in the full ADBB and the 20 health visitors who were trained in the m-ADBB agreed to participate in the study from across both sites following their training. In addition, two service managers were also invited. We provided all participants with an information sheet detailing the nature and objectives of the study, data collection procedures, possible risks and benefits, data security and management. We also gave participants a point of contact if they had any queries or questions regarding the study and obtained written informed consent prior to the interviews.

2.4.3 Theoretical framework

We used the explanatory model of implementation science provided by Normalisation Process Theory (NPT)[19]. We selected NPT as an appropriate implementation theory for its use within the health visiting context as it addresses the reality of healthcare provision within environments that are under pressure with competing demands involving complex interactions.

NPT focuses on four key constructs of:

1. Coherence: sense-making.
2. Cognitive participation: the relational process of enrolment in a new practice.
3. Collective action: the enactment of the new skills provided by the ADBB and m-ADBB training.
4. Reflexive monitoring: appraisal and perceived potential impacts[19].

2.4.4 Ethical considerations

We obtained ethical approval from the Departmental Research Ethics Committee (DREC) at the University of Oxford and conducted our study in compliance with the Health Research Authority Policy Framework for Health and Social Care Research and Good Clinical Practice. We established a project advisory group to guide and challenge as needed, to ensure we adhered to the agreed protocol including the stated ethical terms.

We carried out all interviews on a voluntary basis and participants were informed they could leave the study at any stage. The anonymised interviews were transcribed by a company with whom a confidentiality agreement was in place. We have anonymised any quotations from participants that illustrate specific themes in order to protect their identity.

2.5 Data collection and analysis

2.5.1 Quantitative data

We collected quantitative data from participants on a range of items over four months of the study period, using a standardised data collection spreadsheet. This included the number of:

- Babies eligible for a 6-8-week postnatal assessment.
- Six to eight week contacts where the m-ADBB was used.
- Babies for whom withdrawal concerns were identified.
- Babies offered additional support.
- Nature of the additional support including use or not of the full ADBB.

We analysed the quantitative data using descriptive analysis, to explore the number and nature of the referrals relative to usual practice.

2.5.2 Qualitative data

We collected qualitative data through semi-structured interviews using flexible topic guides that were based on the NPT constructs. These included open questions with prompts that enabled participants to express their own views, reasons and explanations. All health visitor participants were invited to take part in two interviews each – one after completing training and one two months after using the scale in practice. We also interviewed service managers two months after the scale was implemented in practice, using a similar topic guide. Each interview lasted up to 45 minutes and was recorded via Zoom recording system. The audio files were stored, and the interviews were transcribed by The Transcription Company UK.

We analysed interview data using the six phases of thematic analysis outlined by Braun and Clarke: (1) familiarisation with the data, (2) generation of initial codes, (3) search for themes, (4) review of themes, (5) defining and naming themes, and (6) production of the report[20].

The rigour of the study was enhanced by having two postdoctoral researchers who are also health visitors working closely together on data analysis through regular email communications and meetings to facilitate peer review and ensure methodological consistency. A detailed codebook was produced to ensure uniformity of coding. Meetings were also held with members of the larger research team throughout the analysis process to provide additional insights.

The full study protocol can be accessed here: https://bmjopen.bmj.com/content/13/11/e078579

Chapter 3. Findings

3.1 Participant characteristics

In total, 22 of the 25 health visitors (five trained in ADBB and 17 in m-ADBB) were recruited to the study along with two service managers. Subsequently, one health visitor was unable to participate in the second interview, resulting in 16 health visitors trained in the m-ADBB being interviewed two months post implementation of the scale. Non-participation of three members were due to sickness absence and one due to workload pressure. Fifteen participants (68%) had over five years' experience of working as a health visitor, with six (27%) having more than 20 years' experience. Seven health visitors reported to be trained in other forms of infant observation including Video Interaction Guidance (VIG), the Newborn Behavioural Observations (NBO) system, and the Solihull Approach.

3.2 Quantitative findings

Health visitors recruited to the study submitted scale-related data on the 6-8-week contact they offered over a four-month period, between 10 July 2023 to 10 November 2023. During that period, a total of 248 assessments were carried out at the 6-8-week postnatal contact. Out of those, the m-ADBB was used for 225 (91%) assessments. Reasons given for not using the m-ADBB during the routine assessments most commonly included the baby sleeping, feeding or being unsettled. One of these contacts was made via telephone (rather than a face-to-face visit), making it impossible for the health visitor to carry out the observation of the baby.

Figure 2: Number of 6-8 week postnatal assessments

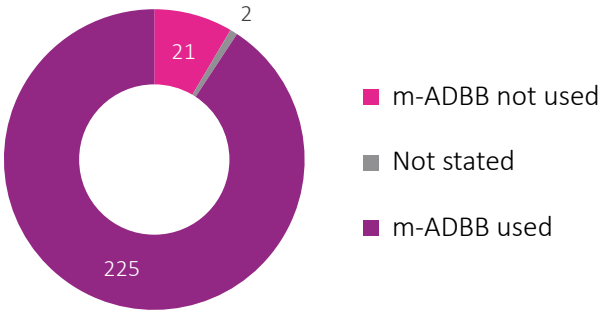
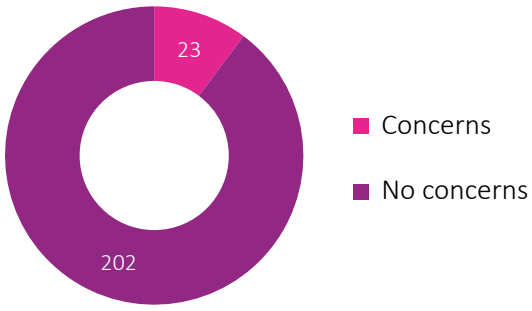


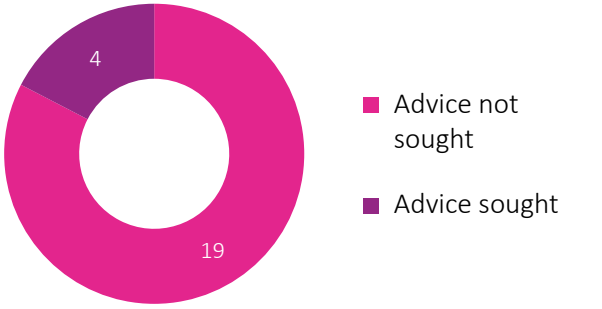
Figure 3: Number of assessments using m-ADBB where concerns regarding social withdrawal were identified



Using the m-ADBB, health visitors identified behavioural concerns in 23 (10%) babies and all of these families were offered additional support. In their subsequent interviews, we determined that this was based on the health visitor's holistic assessment and through shared decision-making with the family. This included follow-up visits, Emotional Wellbeing Visits and Video Interaction Guidance (all offered by health visitors), connecting with Child and Family Centres, referrals to Specialist Perinatal Mental Health teams, dietetics, orthoptics or third sector mental health support.

Three health visitors trained in the m-ADBB sought additional advice from health visitors trained in the full ADBB on four occasions. On two occasions this was for general advice, on one occasion it was to refer a baby for Video Interaction Guidance (VIG), and on one occasion it was to refer a baby for consideration of further assessment using the ADBB. The reasons why health visitors trained in m-ADBB did not seek further assessments using the ADBB more often is explored and discussed further in the qualitative findings section.

Figure 4: Number of times advice sought from full ADBB-trained health visitors



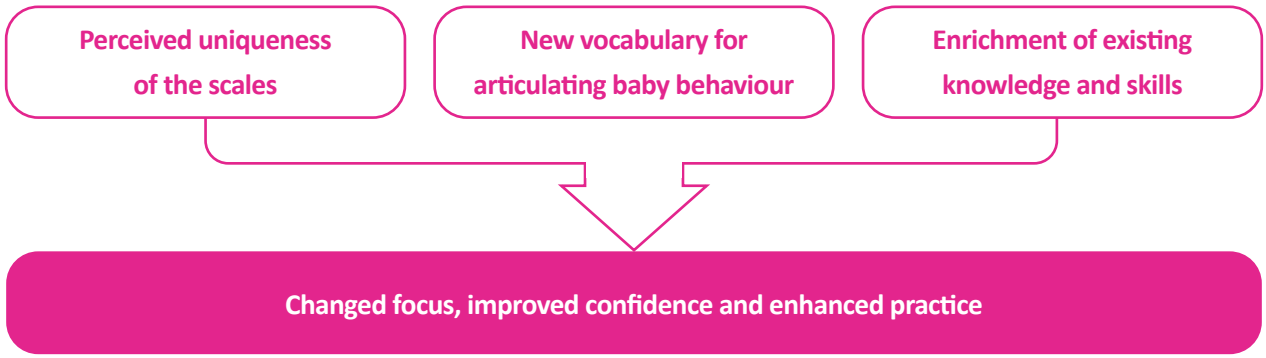
3.3 Qualitative findings

In this section, the thematic findings from both sets of interviews (post training and post scale implementation, approximately two months apart) are presented together, drawing on the four NPT constructs (coherence, cognitive participation, collective action and reflexive monitoring) to gain an understanding of the implementation of the ADBB and m-ADBB in practice. The NPT constructs provide an understanding of the processes and strategies that health visitors and managers used in the implementation and integration of the scales in their routine practice. It is important to note that there may be some repetition of themes between constructs, but this is to be expected with the dovetailing of each process of 'normalisation'.

Coherence: Sense-making of the ADBB and m-ADBB training and scales

In this section, we explore how health visitors made sense of the ADBB and m-ADBB training and the newly acquired baby observation knowledge and skills within their existing practice.

Figure 5: Key themes for health visitors' sense-making of the ADBB and m-ADBB training and scales



Perceived uniqueness of the scale

Both training programmes for the ADBB and m-ADBB were perceived to provide a unique focus on the baby, which allowed the health visitors to discriminate between observations of the baby's development, the baby's relationship with parents, and the baby's interactions within the environment. Health visitors saw this focus on the baby as the main advantage of the ADBB and m-ADBB training. This was felt to represent an improvement on previous tools or approaches that they had used which predominantly focused on the parents' perspective or environmental factors (such as poverty).

Specifically, health visitors felt that the ADBB and m-ADBB training offered them a more nuanced perspective with which to identify specific baby communication and behaviour, such as subtle cues, facial expressions, and other body language of the baby, when compared with other approaches or tool-specific training (such as the Solihull Approach). Both training programmes were perceived as enabling the health visitors to 'read' a baby during interactions with themselves or other practitioners, as well as with their parents.

Interview extracts

"It's just put my focus more on the baby, it's made me sort of really truly look at the baby and know really what is that baby telling me through its behaviour. So yeah it's just put that focus really truly on that baby."
(P2.2 - Health Visitor, m-ADBB trained, with more than 20 years' experience, VIG trained)

"I feel like it's more baby focused and in terms of being different to any other tools that we use."
(P12.1 - Health Visitor, m-ABDD trained, with 5-10 years' experience)

"I think from what I know about those other tools, it is still looking at the mum and asking the mum questions and asking the mum does the baby like her, things like that. And this is more objective, this is more me isn't it, it's me looking and making that judgement."
(P20.1 - Health Visitor, ABDD trained, with more than 20 years' experience, VIG trained)

The scales were also perceived to have provided practitioners with greater sensitivity in terms of their observation of potential attachment and bonding issues that would not have been identified without the training. This was perceived to be the result of bringing the baby 'back to the centre' of the contact. It was also identified as being key to enabling them to identify wider problems.

Interview extracts

"The tool is to look at those baby's interactions and to identify any withdrawal for baby. And (…) the function of it really is then to help us to identify those families that [possibly] need that extra support (…)."
(P1.1 - Health Visitor, m-ABDD trained, with 5-10 years' experience, VIG trained)

"I think it will just give us the tools to identify relational withdrawal within families and put in interventions or signpost families to get support."
(P17 - Health Visitor, m-ABDD trained, with 2-5 years' experience)

New vocabulary for articulating baby behaviour

Related to the above, the ADBB and m-ADBB and the associated training were perceived to have equipped health visitors with a new language with which to explain the behaviours and interactions of babies, which also provided them with a new vocabulary with which to identify and describe the baby's development, as well as parent-infant relationships.

Interview extracts

It gives you that language around how babies are behaving with that parent and what the strength of that is (…) I think it gives that wonderful richness to what we talk about all the time but just on a different platform."
(P4.2 - Modern Matron/Team Lead, m-ADBB trained, with more than 20 years' experience)

"So although I was seeing relational problems, I was seeing no eye contact, I wouldn't have had the words to – probably wouldn't have had the same words to express it as I could with that scale."
(P11.2 - Health Visitor, m-ADBB trained, with more than 20 years' experience)

Both the training and the scales enabled the health visitors to 'truly' listen to the baby's voice rather than rely purely on what the parents were telling them or what health visitors described as a "gut feeling" that they had previously found more difficult to articulate. This enabled health visitors to be explicitly baby-centred, which was felt to bring something distinctive to their relationships with parents, e.g. assessing and articulating how they are engaging with their baby in ways that are developmentally explicable and predictable.

Interview extracts

"It's actually now realising the baby is conveying things to us here. They're telling us how they're feeling, they're expressing, they're giving us a response."
(P22.2 - Specialist Health Visitor, ADBB trained, with 5-10 years' experience, VIG trained)

"It's made me much more aware of what the infant is telling me (…) And this is what we've said from the beginning. It's such an eye-opener. We'd be so focused normally on the relationship between the caregiver and the baby, rather than what the baby is trying to tell anyone else that's around them. Which isn't something we've ever really focused on before."
(P8.2 - Health Visitor, m-ADBB trained, with less than 2 years' experience, NBO trained)

"Because [with] a lot of our observations, the gut feeling is used, isn't it? But what this does is it puts a bit of a framework, and it uses language to underpin a lot of (…..) what they're feeling and seeing as well."
(P21.2 - Specialist Health Visitor, ADBB trained, with 5-10 years' experience)

This was also perceived to be beneficial in terms of producing clinical records and referrals to other services.

Interview extracts

"You are able to even document in records about, so I find I've changed my documentation, I tend to now write things like the baby was observed to be vocalising and smiling and good eye contact in my record keeping."
(P3.2 - Health Visitor, m-ABDD trained, with 5-10 years' experience)

"I do actually think that what it does, is it gives you the structure to think about and vocalise what you're saying. So like for me, I could use that in a child protection case conference and actually say that this baby wasn't interested in me, wasn't looking at me, that sort of thing."
(P5.2 - Modern Matron/Team Lead, m-ADBB trained, with more than 20 years' experience)

Enrichment of existing knowledge and skills

Health visitors saw the training (for ADBB and m-ADBB) as an opportunity to develop and complement their existing skills in baby behaviour and interactions, maternal mental health, as well as parent-infant relationships. The learning acquired, in terms of new knowledge and skills (i.e. observation skills), was perceived to align well with, as well as enhance, their existing practice.

Interview extracts

"In my team, there's a big drive on baby brain development, and stuff, so I just thought, 'Oh, actually, that's going to enhance my understanding of that, and it's going to be a tool that I can add to my toolkit, that's going to help me understand that a bit more."
(P7.1 - Health Visitor, m-ADBB trained, with 10-15 years' experience, Solihull trained)

"I do think the term 'infant mental health' is banded around and used but what do we even mean? What so we know? What do we understand? So I thought. 'Actually, anything that gives us the opportunity to think about this a little bit more is a great opportunaty.' We jumped at the chance to be involved."
(P22.1 0 - Specialist Health Visitior ADBB trained, with 5-10 years' experience. VIG trained)

Specifically, health visitors described how their communication skills were the most important (existing) skill in how they discussed their observations using the scale on baby behaviour and interactions with parents. They also acknowledged that these discussions needed to be carried out sensitively, taking into account the parents' needs, level of understanding, and the wider family and home context. This, in combination with the health visitors' comprehensive and holistic assessment of the baby, parents, family and home environment, helped the decision-making process around possible reasons for social withdrawal in babies and the support or intervention needed.

Interview extracts

"I think it's about understanding the wider context of what's happening with the baby and the family so exploring that approach with the parents and trying to ascertain if there are any other aspects of wellbeing or factors that will potentially be having an impact on baby at that time."
(P4.2 - Modern Matron/Team Lead, m-ADBB trained, more than 20 years' experience)

"I think they draw on your existing skills. And you obviously need the training, to understand the scale, but I think it draws on your general toolbox, as a health visitor, or practitioner."
(P6.2 - Health Visitor, m-ADBB trained, 10-15 years' experience)

Health visitors' confidence in the application of the training and scale to identify emerging concerns served as motivation for integrating their newly acquired skills into practice. Health visitors felt the training (for ADBB and m-ADBB) was completely integral to their daily work with families as it provided them with further insights about the babies who may need additional support. Health visitors were acutely aware of the impact that early parent-infant relationships have on longer term outcomes for babies and the difference that early intervention makes. They felt that their new learning enabled more effective identification of need and provision of appropriate early support, which could better support long term outcomes for the babies.

Interview extracts

"I think it would be brilliant actually because I think it would help us identify those child – those babies - that will go on to develop poor health needs going forward because of the poor attachment between mother and baby."
(P15.1 - Health Visitor, m-ABDD trained, with 2-5 years' experience)

"And for me, a tool that can identify as early on as possible, when there might be a problem, so that we can get intervention in there, we can provide extra support, we can try and make a difference, is really important."
(P21.1 - Specialist Health Visitor, ABDD trained, with 5-10 years' experience)

Overall, every health visitor who took part in both the ADBB and m-ADBB training reported an increase in their confidence, knowledge and skills with regard to baby observations, and felt that both training programmes were highly beneficial and of great importance to their practice.

Interview extracts

"I think it's an enhanced level of knowledge and skills to be able to provide more of a contextual assessment of what's happening to that baby and that parent/infant relationship that may not necessarily be so obvious to the untrained eye."
(P4.2 - Modern Matron/Team Lead, m-ADBB trained, more than 20 years' experience)

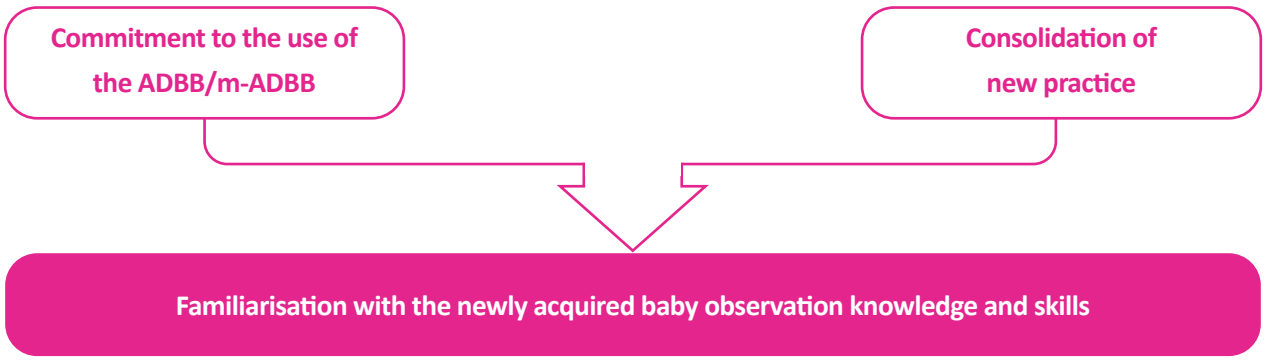
"I feel like the tool (….) has put a spin onto that assessment to say, 'Actually you can look at this from this angle.' So that's not to say I couldn't assess if there was an issue. I couldn't identify an issue before. It just means that now my skillset is wider."
(P14.2 - Health Visitor, m-ABDD trained, with 5-10 years' experience)

"I know we're observing all the time, but I think that it's definitely made me look at those interactions more. So I think if anything, it's enhanced it."
(P19.2 - Health Visitor, ABDD trained, with more than 20 years' experience)

Cognitive Participation: Familiarisation with the newly acquired baby observation knowledge and skills

In this second section, we explore how health visitors committed to, and engaged with the training and use of the scales in their practice – ultimately identifying how health visitors familiarised themselves with their newly acquired baby observation knowledge and skills in practice.

Figure 6: Key themes for how health visitors familiarised themselves with the newly acquired baby observation knowledge and skills in practice.



Commitment to the use of the ADBB/m-ADBB

The interview data suggested a very clear commitment to both the training and the use of the scales on the part of all health visitors and managers, as per the model proposed in the study (i.e. m-ADBB used at routine contacts, followed by ADBB if a further assessment was necessary). Health visitors were motivated to use the tool by their enhanced understanding of baby behaviour and interactions, and the potential difference that the early identification of concerns could make to children and families. Many health visitors felt the m-ADBB (and the training) was so important in current practice that all health visitors (including students) should be trained in its use.

Interview extracts

"Very committed. I think it's something that once you've got the awareness of it, I don't think the awareness will leave."
(P10.2 - Health Visitor, m-ADBB trained, with less than 2 years' experience)

"My commitment to using it I think we should all be trained in at least using the modified. Definitely, definitely. It's just something that I think every health visitor would really benefit from it and families of course."
(P2.1 - Health Visitor, m-ABDD trained, with less than 2 years experience, VIG trained)

"I am 110% behind them …So if they were really passionate about getting involved in this, I would do whatever I could to operationalise that."
(P23 - Service manager)

Consolidation of new practice

Whilst the initial commitment to the use of the scale was overwhelmingly positive, health visitors were nevertheless apprehensive about the potential for an increase in their workload as a result of the m-ADBB in the routine 6-8 week contact. They described how their caseloads were already very demanding and that they were concerned that another task added to their responsibilities would mean more time pressure on their visits, for example, reducing the time for follow ups. They were concerned that this, along with (national and local) poor staffing levels, could mean a lack of 'buy in' from their colleagues. Despite these concerns, some health visitors reflected that implementing the m-ADBB in practice was more manageable than they had expected, and that the more they practised they became in using the scale, the less onerous its use seemed to be.

Interview extracts

"My initial thoughts were how are we going to fit something else in if I'm honest. It was probably not positive thoughts, because our resources are so low, so how would it actually work in practice, given that we're under so much pressure."
(P11.1 - Health Visitor, m-ABDD trained, with less than 20 years experience)

"Initially yes first of all I thought, am I going to have time for this? It's just another thing isn't it, something else that we're going to have to do, adds another job on, but yes that did quickly change once I started practising it, when I was out in practice I started using it, I actually realised it's something that I can do quite easily."
(P9.1 - Health Visitor, m-ABDD trained, with less than 2 years' experience)

As the health visitors continued to consolidate their practice, these enhanced observation skills were perceived to have become part of the health visitors' skillset, such that observing the baby using the different domains of the scales was felt to have become an 'automatic' process. Even when they were not working, they said that they found themselves observing babies wherever they were, for example, in the street or supermarkets. Health visitors strongly anticipated a lasting impact of the training, meaning they would not be able to 'unlearn' this new way of seeing babies and viewed it as being helpful across a variety of clinical contacts.

Interview extracts

"I think once you've learnt this information, you can't unlearn it, so I will always be looking for those things, going forward. So whether this is adopted into practice or not, I will always be looking for those things in practice."
(P6.1 - Health Visitor, m-ABDD trained, with 10-15 years' experience)

"Once you've had the training, once you know it, you can't un-know it. So even watching babies in the supermarket, I am using the ADBB, because it's just there."
(P21.1 - Specialist Health Visitor, ABDD trained, with 5-10 years' experience)

"I use it all the time. I can't help it now, now I've started, it just happens naturally."
(P9.2 - Health Visitor, m-ADBB trained, with less than 2 years' experience).

The health visitors felt that there was significant congruence in terms of the requirements of the training and the implementation of the ADBB and m-ADBB within existing health visitor practice – largely due to the similarities with regard to the naturalistic observations that health visitors make in their daily assessments of babies and their families. Health visitors saw many opportunities for the incorporation of the scale in their routine assessments, such as when a baby is being weighed or when discussing a baby's wellbeing with a parent, without any noticeable extra time demands within their clinical contacts. The training familiarised health visitors with the knowledge which enabled them to make quick observations of issues that may be present with a baby, a baby's relationship with their parents, or the baby's overall interactions with the environment.

Interview extracts

"I think it fits well with current practice, particularly like, at clinics as well, you can use it."
(P5.1 - Modern Matron/Team Lead, m-ABDD trained, with less 20 years' experience)

"You can fit it into your 6 to 8 week visit quite easily because you're weighing the baby, the baby's getting weighed and measured so it's very easy to assess facial expression, eye contact."
(P17.1 - Health Visitor, m-ABDD trained, with 2-5 years' experience)

Collective Action: Integrating new baby observation knowledge, skills and scale within existing practice

In this third section, we explore the work that health visitors did to integrate the new baby observation knowledge and skills learned from their training in operationalising the ADBB and m-ADBB scale within their existing practice.

Figure 7: Key themes for how health visitors integrated the new baby observation knowledge, skills and scale use within existing health visitor practice

Implementation of the m-ADBB in routine practice

In order to integrate the m-ADBB into routine practice, health visitors adapted the way in which they used the scale in the 6-8 week postnatal visit. Instead of using the scale to produce a score based on the assessment at the visit following their observation of the baby, health visitors made mental notes of the scores in the context of their wider assessment of the baby. They then used their findings to facilitate discussions with parents about their baby's behaviour and interaction using strengths-based approaches. Health visitors felt that the scale enabled them to promote positive parent-infant interactions, attachment and bonding, while also identifying babies and families in need of greater support. The use of terms such as 'Alarm Distress Baby Scale' or 'baby withdrawal' was perceived as being unhelpful, and health visitors therefore used their professional judgement and communication skills to integrate the scale into their assessment, using more accessible and 'softer' language with parents. Health visitors also referred to the fact that the way in which the tool was being used as part of their existing skillset, rather than being implemented as an independent screening instrument, made it acceptable not to explicitly refer to the m-ADBB scale with families during their routine assessment.

Interview extracts

"What I'd usually do to be honest is do the observations and access myself and then sort of try and use it as really like positive reinforcement. So saying, 'So I've just been watching baby and I've noticed that when she does this you've done that and she's really responding to you and you're responded to her' and I've sort of really used it in more positive reinforcement."
(P10.2 - Health visitor, m-ADBB trained, less than 2 years' experience)

"We have a repertoire of skills that we use and I guess when we start our process we do our consent with parents at that point and that will include the fact that we will use assessment scales and techniques and what have you, in motivational interviewing or whatever it is. There's an umbrella of things that we're trained in and we do to support you. So I feel that is how it is explained. We don't talk about relational withdrawal with parents because that's very unhelpful. We talk the way we always have about babies being born social, ready to connect and that if we noticed anything within that it would be a discussion around that rather than. Because I think that was one of our concerns right at the beginning was if you talk about the scale explicitly and talk about relation withdrawal explicitly that's going to do more harm than good. It's actually utilising the skills from that in a strengths-focused way and having the conversations with parents."
(P22.2 - Specialist Health Visitor, ADBB trained, with 5-10 years' experience, VIG trained)

While health visitors were asked to use the m-ADBB at the 6-8 week postnatal contact, they also identified the scale's usefulness in earlier, as well as later, visits. Some health visitors felt that the scale may be more effective at a later contact between 12 to 16 weeks, when the babies are more likely be alert and active. However, they acknowledged that there was no national mandated contact at that time point and, in the absence of this, the 6-8 week check was the most suitable to achieve universal reach of babies. A small number of health visitors suggested that the scale should also be used at the 8-12 month review, while most health visitors felt that it could potentially be used at every contact as part of their observation of the baby and assessment process.

Interview extracts

"I think it could be maybe one of those tools that you can use officially at six weeks, but you can use it at any time as well."
(P14.2 - Health Visitor, m-ADBB trained, with 5-10 years' experience*)*

"Well I do the six week checks anyway and we're doing it anyway, so it wasn't necessarily any impact from that perspective."
(P3.1 - Health Visitor, m-ABDD trained, with 5-10 years' experience)

"I don't think it takes any longer, I think it is easy to introduce and particularly when you're already doing the weight, the head circumference. We do outcome stars, so we're already doing that and again, you see that raises awareness for parents, I think it's all interlinked and it's just a little bit extra, so it doesn't take any extra time really."
(P5.2 - Modern Matron/Team Lead, m-ADBB trained, with more then 20 years' experience)

A number of difficulties in implementing the scale in a broad range of scenarios (including when face-to-face contact was not possible with some families) were identified. During the implementation of the m-ADBB, health visitors realised that carrying out observations using the scale was unpredictably affected by the baby's behavioural state (such as hunger, sleep or alertness). For example, when a baby was sleeping, health visitors were unable to carry out the required observation and engagement with the baby to assess their behaviour using the scale. Other implementation issues included different distractions within both the home setting (such as younger siblings or relatives) and clinical environment (such as clinic noise) which made the conduct of the observations challenging. These were seen as the main barriers to using the m-ADBB at the 6-8 week contact.

Interview extracts

"Just if the child's sleeping, fussy, then feeding, then milk drunk, they're then winding the baby. So in those instances, it has prevented because the baby just isn't, you know, you put them on the scales, they're screaming. There's no point where they are actually happy to interact."
(P3.2 - Health Visitor, m-ADBB trained, with 5-10 years' experience)

"The clinic settings and the home settings, I found they were very different. So I only actually did one of the 6-to-8 weeks in the clinic setting, and I found it very difficult, because the baby was very distracted with all the noise that was going on around in the clinic at the time, so I found that quite hard to assess."
(P13 - Health Visitor, m-ABDD trained, with 2-5 years' experience)

In cases where health visitors were not able to carry out the observation at the 6-8 week contact, they reported that the lack of time and capacity would prevent them from going back to do an additional assessment, unless they had identified any other concerns for that family.

Interview extracts

"Well there's some I just – I haven't gone back [to see] because I just haven't got the capacity. And that's the other thing, I mean to mention that actually so we need to review it in one to two weeks. But actually if my diary is full, I work part time, to review that child in one to two weeks, sometimes it's not possible. So it's been two and a half weeks and that's what you're dealing with when you're looking at health visitor capacity at the moment."
(P11.2 - Health Visitor, m-ADBB, more than 20 years' experience)

"I think, at the moment, capacity would mean that we couldn't offer it in the way that I think it would work. For example, there's that clinic example and if we see someone in the clinic, it requires a follow-up visit to do an assessment. That might be for the m-ADBB, then you might need a ADBB scale and then an intervention. It's not that we don't want to do them. It's just that we don't have the capacity to do it like that."
(P18.2 - Specialist Health Visitor, ADBB, with 2-5 years' experience, VIG trained)

Organisation and Management Support

Health visitors perceived themselves to have been very well supported by their managers, their colleagues in their teams, and across the service, all of whom were felt to have collectively contributed to the work involved in implementing this new practice. The health visitors who had undertaken the m-ADBB training felt reassured by the support structures that were available to them from other professionals, including health visitors trained in the full ADBB and other perinatal mental health professionals. This included offers of joint visits to babies if there were difficulties in undertaking an observation or the circumstances around it. Having good support from managers meant that the health visitors were able to undertake the training to develop their skills further and felt empowered to use the scale in practice. The service managers were supportive of upskilling the workforce and enabling health visitors to incorporate the scale in practice. This level of organisational and managerial support to use the scale in practice appeared to have been a key enabler to the implementation process.

Interview extracts

"We've got lots of opportunity where we can go and talk to other people about what we're seeing if we need to."
(P2.2 - Health Visitor, m-ADBB trained, more than 20 years' experience, VIG trained)

"Well because obviously they're [managers] on board, so you know that they're allowing you that time to do what you need to do. And I think they're excited as well to find out the results as well, so I feel empowered by the."
(P3.2 - Health Visitor, m-ADBB trained, 5-10 years' experience)

"I guess from the perspective of our managers they've been supportive in that they've enabled us to do the training, they've just let us get on with it. And I guess if we needed them they'd be there."
(P22.2 - Specialist Health Visitor, ADBB trained, 5-10 years' experience, VIG trained)

"Health visitors, school nurses, are trained to a specialist level and they already have a good level of training but they don't always have that finite level of training within particular aspects of development, infant relationships and when you get into school nursing levels and things like adolescent brain development. We've recognised within our service that we do need to invest a lot more training in those areas."
(P23 - Service manager)

Existing systems and pathways for children and families

Most participants felt that their existing organisational care pathways (including referrals) were adequate to meet the needs of families if they identified any concerns about a baby's behaviour or potential social withdrawal. In one NHS site, a number of health visitors (both within and outside of this study) were trained in Video Interaction Guidance (VIG) and had systems in place for families to be referred to them if needed. This was seen as a positive intervention within the health visiting pathway, which the ADBB/m-ADBB complemented. Some health visitors, however, were concerned that if the use of the scale increased the number of referrals made to partner agencies, it could have an impact on the wider healthcare system (which is already under-resourced), resulting in babies/families not being seen in a timely manner.

Interview extracts

"My experience is that we already have pathways in place to support parents and we do that directly within our service and connect them to the wider services that are out there if they need a bit more specialist stuff."
(P4.2 - Modern Matron/Team Lead, m-ADBB trained, with over 20 years' experience)

"And so, for example, we know with CAMHS they now, in our area, won't take any children under the age of four, there's no family therapy, we used to have art therapy here at the children's centre and now there isn't any of that. So, it's more about the resources, I think the pathways are not too bad."
(P5.2 - Modern Matron/ Team Lead, m-ADBB trained, with over 20 years' experience)

"Yes there is the services, whether it fully meets the needs of our families currently I think the landscape is not always that positive is it? You know, services, wait times where we would like to see families getting support, but actually they're on books and under services but not being seen. So actually I think that's a much wider level."
(P22.2 - Specialist Health Visitor, ADBB trained, with 5-10 years' experience, VIG trained)

A small number of m-ADBB-trained health visitors sought support from the full ADBB-trained health visitors, but this was mainly to discuss individual cases of concern and to seek reassurance, especially in the early days of implementation. As the health visitors became more confident in using the m-ADBB in practice, less support was required from the full ADBB-trained health visitors. Only one out of the five ADBB-trained health visitors received a referral for a full assessment (as stated in the quantitative data). This however had not taken place at the time of the interview (it was scheduled to take place 2 weeks later).

Interestingly, none of the other health visitors trained in the m-ADBB had felt that a further assessment by a full ADBB-trained health visitor was needed. Where concerns were identified using the m-ADBB, the health visitors felt sufficiently enabled to make decisions about the following course of action, which may have included additional support from the health visiting service, as well as referrals to external services.

Interview extracts

"They were supportive. I think, as I say, once we'd kind of got our heads around it I think the support was less necessary."
(P10.2- Health Visitor, m-ADBB trained, with less than 2 years' experience)

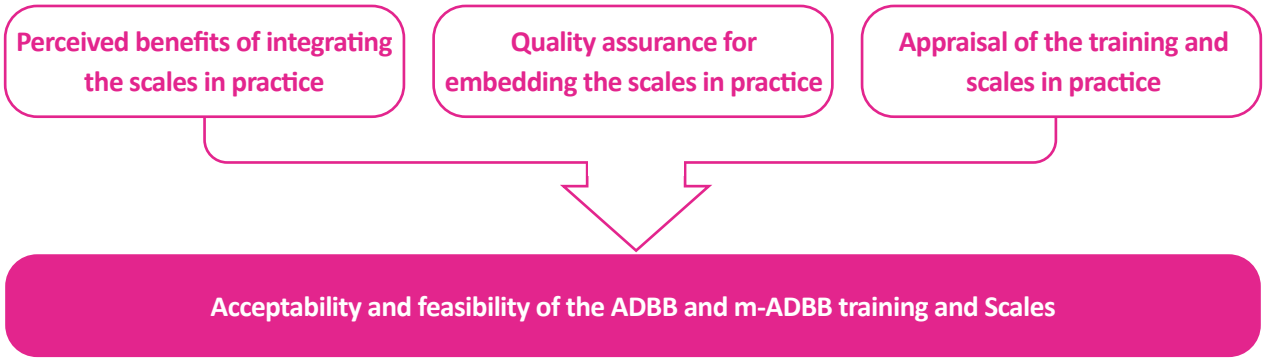
"It was just a little bit concerning on one of the scoring, I wasn't quite sure. But she gave me the support and the extra eyes on the situation and then everything was fine after that."
(P13.2- Health Visitor, m-ADBB trained, with 2-5 years' experience)

"I've had a couple of calls but I haven't actually been out to see a family to complete the scale formally."
(P18.2 – Specialist Health Visitor, ADBB trained, with 2-5 years' experience, VIG trained)

Reflexive Monitoring: Reflecting and appraising the ADBB and m-ADBB training and scales in routine practice

In this last section, we explore how health visitors reflected on the training and scales' use in practice to create a better understanding of the ways in which the ADBB and m-ADBB observational skillset impacted on health visiting practice.

Figure 8: Key themes for health visitors' appraisal of the ADBB and m-ADBB training and scale use in routine practice



Perceived benefits of integrating the scales in practice

Both training programmes (for ADBB and m-ADBB) were perceived by the health visitors as being useful in increasing their knowledge and skills for early identification of behaviour concerns in babies. Health visitors recognised that previously they would notice the 'extremes' of a baby's development or significantly poor interactions with parents, whereas now with the training they recognised more subtle behaviour concerns.

The perceived benefits reported by the health visitors and managers for both scales were similar, and included:

- Greater health visitor knowledge of baby behaviour.
- Enhanced health visitor observation and assessment skills.
- Ability to be more 'baby focused'.
- Early identification of concerns (around 6-8 weeks).
- Ability to provide early support and intervention.
- Opportunity to raise awareness and educate parents about baby behaviour and promote positive parent-infant relationship.
- Standardised scale for public health profiling and understanding of community needs.

Interview extracts

"I personally think we will pick things up earlier. A lot earlier. Because, potentially, we might not be picking up anything until the 10-month check. So if we're picking things up at an 8-week check, that could make a huge impact, early interventions, targeting families earlier, providing support earlier, minimising the impact. So it could potentially have a huge impact."
(P8.2 - Health Visitor, m-ADBB trained, with less than 2 years' experience, NBO trained)

"So early identification when there might be a difficulty and the earlier we can identify the earlier we can try and intervene and offer support for that family. (…) I think with the ADBB again we're opening up that range of behaviours that we're observing. So we're able to kind of observe a broader range of behaviours that are used to kind of communicate."
(P21.2 - Specialist Health Visitor, ADBB trained, with 5-10 years' experience)

"The benefits of utilising a standardised scale across our system mean that we can start to look at profiling and understanding our communities' needs from a Public Health perspective."
(P23.2 - Service manager)

"To make us more child-focused and that's what we're saying that we are, isn't it? We're child-focused and if this assists in that process, then that's a win for me."
(P24.2 - Service manager)

As part of the integration of the m-ADBB in the routine 6-8 week contact, health visitors described how rather than informing parents that they were 'using' the Alarm Distress Baby Scale, it was simply used seamlessly as part of their existing skillset. Some health visitors suggested that the name of the scale had the potential to cause unnecessary worry for parents and felt that this way of integrating the tool in terms of discussions around their observation of baby behaviour was acceptable to parents.

Interview extracts

"For the families I've been involved with, I think it's very acceptable and, again, it allows them to create a better understanding, if they didn't already have it, about what baby behaviours are and what that communication is that that baby is offering that parent at that time and their relationship."
(P4.2 - Modern matron/ Team Lead, m-ADBB trained, with more than 20 years' experience)

"I think health visitors in general are keen to have kind of tangible tools and resources that they can use to kind of formulate and explain in a bit more depth around how babies are presenting (…), which kind of adds weight maybe to their assessment or when kind of referring onwards."
(P21.2 - Specialist Health Visitor, ADBB trained)

Health visitors reported that, based on their clinical experiences of using the m-ADBB and sharing these experiences with their colleagues, their colleagues were also interested in finding out more and being trained.

Interview extracts

"I think the staff that haven't been trained in it are gutted that they didn't get signed up to it and do it and they're asking 'when are we going to be trained in that'?"
(P3.2 - Health Visitor, m-ADBB trained, with 5-10 years' experience)

"So I think it'd be an interest from the wider health visiting team in terms of they've asked what's it about, they've wanted to know more, they've wanted to know if they can use it, will they be able to use it, will it be coming out into practice? That type of thing. So there has been kind of wider interest in the tool as well and also wider interest from our partner agencies."
(P21.2 - Specialist Health Visitor, ADBB trained, with 5-10 years' experience)

The health visitors trained in the m-ADBB advocated its acceptability to other health visitors - once they knew it was easy to use, enhanced their baby observation skills and practice, and was unlikely to have an impact on their workload. Service managers involved in this study were highly supportive of the use of the m-ADBB, and viewed baby observational practice as an essential part of health visiting.

Interview extracts

"I think once they [health visitors] realise that it's quite quick and easy to do and actually, we're doing it already, I think they'd be accepting of it and I think they'd definitely see the benefits of it as well."
(P1.2 - Health Visitor, m-ADBB trained, with 5-10 years' experience, VIG trained)

"We were all really excited about the ADBB and I think the [health visitors] have seen the impact of it already. They [health visitors] would love to see it rolled out across the whole of health visiting and not just us…. I think they've got no choice. I think it's got to be. I feel that everywhere that's got a health visiting service in the country should be doing this."
(P24 - Service manager)

Overall, both training programmes and scales (ADBB and m-ADBB) were seen as positive additions to health visiting, and all health visitors and managers in this study welcomed the inclusion of these scales in routine practice, based on the model used in this study. They noted that this study had not only generated interest from colleagues within the service but also from external partner agencies.

Quality assurance for embedding the scales in practice

Interview extracts

"Because there's not many of us that have started doing it, people are interested in it you know, the ones that when we have talked about in team meetings and things, I think people are quite excited about learning and finding out more about it."
(P9.2 - Health Visitor, m-ADBB trained, with less than 2 years' experience)

"So I think those that haven't are quite interested and wondering what it all is."
(P19.2 - Health Visitor, ADBB trained, with over 20 years' experience)

"So I think it'd be an interest from the wider health visiting team in terms of they've asked what's it about, they've wanted to know more, they've wanted to know if they can use it, will they be able to use it, will it be coming out into practice? That type of thing. So there has been kind of wider interest in the tool as well and also wider interest from our partner agencies."
(P21.2 - Specialist Health Visitor, ADBB trained, with 5-10 years)

Having support following the training in a variety of formats (i.e. supervision, drop-in sessions, workshops, informal support from colleagues, workbooks) was perceived to have facilitated the successful embedding of the ADBB/m-ADBB in practice. Alongside this, some health visitors suggested other ways that this could be improved, by for example creating a post-training 'crib sheet' and developing communities of support with colleagues trained in the scale.

Health visitors also identified the need for several support mechanisms to enable them to maintain their knowledge, skills and competencies in using the ADBB/m-ADBB. This included ongoing training (regular refresher/update sessions), access to supervision (ADBB-trained colleagues/peers), availability of suitable learning resources (handbook/videos) and the opportunity to practise their skills using the scales in practice. In addition to this, seamless systems and processes for recording the baby observations that were carried out using the ADBB/m-ADBB were identified as being necessary.

Interview extracts

"I think you've got to ensure that there is confidence in using the tools. It's that false positive, isn't it? I think, therefore, it's about having access to appropriate, well-trained supervision."
(P4.2 - Modern Matron/ Team Lead, m-ADBB trained, with over 20 years' experience)

"I think in terms of using it during visits, just refresher training and just sort of reminders of what we're looking for and just refresher training. Probably not yearly. Probably maybe two-yearly, three-yearly, something like that."
(P-10.2 - Health Visitor, m-ADBB trained, with less than 2 years' experience)

"Quite manageable, but it would be better if it was already built into our like documentation templates, like we use System One, but whichever one you're using it would be better if it was already built into that."
(P10.2 - Health Visitor, m-ADBB trained, with less than 2 years' experience)

Appraisal of the training and scales in practice

In appraising the training, health visitors reported that both trainings (for ADBB and m-ADBB) had enhanced their skills in interpreting baby behaviour and communication, which they felt had enabled more meaningful conversations with parents about the emotional wellbeing of their babies.

Interview extracts

"You are focusing in on that baby and it means that if we truly, truly use it and we've got the confidence to unpick that. You know, if you do sort of see any withdrawal it's kind of then having that curiosity and being able to ask the questions and work with it early on with the parent."
(P2.1 - Health Visitor, m-ABDD trained, with less than 20 years' experience, VIG trained)

"I think it will really support kind of outcomes for children, positive outcomes for children. Because we all know that early intervention is key. And if we're recognising that this is happening it might probe us to dig deeper. So what's going on for the family, what's going on for the parents, what's going on for the baby. I only see it to be a real positive thing really."
(P18.1 - Specialist Health Visitor, ABDD trained, with 2-5 years' experience, VIG trained)

Both training (for ADBB and m-ADBB) were perceived as being effective in enhancing the health visitors' knowledge and skills in baby observations despite the many differences reported between the two training programmes. The full ADBB training was reported to be more in-depth and required a much greater time commitment (20 hours of synchronous learning plus 45 hours of self-directed learning), compared to the m-ADBB training (3-hour webinar), which was seen as more manageable. Some m-ADBB-trained health visitors however felt that their training needed to be slightly longer than the three hours.

For the full ADBB training, health visitors noted greater difficulty in completing self-directed learning outside of the synchronous learning. The ongoing process to integrate the scale was initially reported to be challenging by these health visitors, although there did eventually come a 'turning point' when the training 'made sense'. This turning point, of feeling comfortable with the scale, was usually felt after five to seven weeks of the training for all ADBB-trained health visitors. Some health visitors felt this was when they discussed cases with the trainer directly and were able to clarify specific baby behaviours observed.

Interview extracts

"I had a kind of, lightbulb moment when the psychologist who taught us…she said something about how is the baby letting you know that they're in the room? How are they talking to you? And that was kind of, my lightbulb moment, I've always, as a health visitor, I thought I was doing a really good job looking at mum and baby's interaction, but I'd actually been looking at mum's interaction."
(P20.1 - Health Visitor, ABDD trained, with less than 20 years' experience, VIG trained)

"At the beginning, I was thinking, 'I don't like this. I'm not sure about this. The numbers don't make sense. This doesn't make sense,' but actually, it really does as you travel through the journey of the training…the trainer, kept saying to us, 'Just trust in the process. Have a little faith.' I'd come away from the training huffing and puffing and thinking, 'This doesn't make sense. It doesn't add up,' but it really does if you just go along with the process."
(P22.1 - Specialist Health Visitor, ADBB trained, with 5-10 years' experience, VIG trained)

When reflecting on the two training programme requirements, one ADBB-trained health visitor questioned whether it was necessary to have the full ADBB training, especially as it required greater time commitment. Based on the feedback received from their m-ADBB-trained colleagues, many felt that the m-ADBB may be sufficient for use by health visitors to identify initial behavioural concerns in babies.

Interview extracts

"I don't know that the ADBB training is necessary, and my colleagues who did the m-ADBB training, seemed to get so much from that. And I don't think we got much more from doing the ADBB, so I kind of wonder whether actually, if we'd just done the m-ADBB training, would've been just as good."
(P- 20.2 - Health Visitor, ADBB trained, with more than 20 years' experience)

While the training sessions and materials for both the ADBB and m-ADBB were perceived to be well-structured, concerns were raised about the effectiveness of the video content within the training, which may have been due to the quality of the video recordings and the fact that they were not conducted in English settings. Some health visitors felt the training was sometimes difficult to understand due to translation issues.

A number of suggestions for improving both training programmes (ADBB and m-ADBB) were made by the health visitors, which included:

- pre-course on baby development to better engage with the scale training.
- better quality videos, preferably in English.
- videos with examples of different scenarios to demonstrate a range of social withdrawal levels in babies.
- more scenarios within English health visitor practice and settings (e.g. home, clinics).

Although recognised as logistically difficult for this study, many health visitors felt they would have preferred to have received face-to-face training rather than online/virtual learning. This was especially the case for health visitors wanting to practise their new knowledge and skills in a simulated environment.

Interview extracts

"So I think probably longer. So it was about three hours, the training. I think face-to-face training would've been better, as well, rather than on Zoom. And better, sort of, videos showing examples. And possibly being able to sort of observe a baby, sort of, in the flesh, if you like, so that you can just sort of trial what's going on, rather than you actually to go out, and it's your first baby that you're actually observing."
(P6.1 - Health Visitor, m-ABDD trained, with 10-15 years' experience)

"I think the use of videos, I think I said this before, were not very clear so it was quite hard to score if we couldn't see it very clearly it was hard to score."
(P17.2 - Health Visitor, m-ADBB trained, with 2-5 years' experience)

3.4 Challenges and limitations

This was a small and time-limited study conducted with two NHS sites and findings may not be generalisable to other areas, particularly where staffing levels and service offers vary. The main limitations of the study are:

- Each NHS site differed in its commissioned health visiting service specification, which was purposely intended to elicit different perspectives using a mixed methods study of this type to explore a new way of working for health visitors in England. Whilst there is commissioning guidance on how best to organise health visiting services from the national government, the exact specification for the services is locally determined. This leads to variation in local pathways and delivery models, which makes comparison more challenging.
- Only health visitors and two managers were included, and wider stakeholder perspectives were not explored.
- The absence of opportunity to test the feasibility of the full ADBB.
- It is not known whether the babies identified for more support in this study would have been identified by health visitors anyway, without the use of the scale or having received the training, and whether the use of the scales may result in more referrals.
- The feasibility of scoring the scale (including how the scores align with cut-offs for targeted and specialist support in the UK context), rather than simply using it to enhance existing observations to identify potential concerns about early relationships, was not assessed.
- The study did not explore whether other members of the skill-mix team could use the tool in the same way.
- The extent to which the perceived benefits of the ADBB/m-ADBB by health visitors, and its reported ease of implementation into existing practice, relied solely on the standalone ADBB/m-ADBB training, or were predicated on health visitors' pre-existing knowledge, skills and experience, is unclear.

Chapter 4. Discussion

In this study, we explored the following research questions:

1. How acceptable and feasible were the ADBB and m-ADBB training programmes?

2. How acceptable and feasible were the use of the ADBB and m-ADBB as part of routine care within the health visiting provision in England?

3. What were the facilitators and barriers affecting the implementation of the ADBB and m-ADBB in health visiting practice?

We used Normalisation Process Theory to help us better understand the journey that the health visitors took in applying their training and implementing the ADBB and m-ADBB in practice. In combining both sets of interviews, conducted at two different timepoints after the training, we were able to demonstrate insight to a 'whole implementation process'. This insight meant some themes resonated across more than one NPT construct. Where this was the case, the findings were reported within the construct that was most central to the identified theme.

The findings demonstrate that both training programmes for the ADBB and m-ADBB were highly commended by all health visitors who undertook the respective trainings, but there may be more preference for the m-ADBB. This was due to the shorter training time commitment required for the m-ADBB, which was considered to be more manageable by health visitors to fit in with their existing workload. Both training programmes provided health visitors with a new theoretical perspective, additional knowledge and skills, and a new vocabulary to explain their observations of a baby's behaviour and their interactions with parents. Prior to the training, health visitors have always been required to carry out assessments on how babies are thriving, through their reported and observed development. However, we found that participating health visitors perceived that the ADBB and m-ADBB training provided them with more precision and detail in their assessments, explanations and recommendations to parents (and other professionals and colleagues). As was highlighted, there were some suggestions for improving the training for use in the UK context which need to be considered.

The scale was viewed as a very effective aid to increase health visitors' confidence in their observation of babies – but it is important to stress that the training on the scale's use was used alongside their pre-existing knowledge base and experience when implementing the scale in practice, such as child safeguarding or wider family health issues. Health visitors recognised that they would have previously identified when a baby was significantly distressed, or where there were significant poor parent-infant interactions, but found that the scale gave them more understanding about the types of behaviours that might indicate concern.

For example, with the new enhanced skills gained from the training (through either 5 or 8 itemised scales, on the m-ADBB or full ADBB, respectively), health visitors were able to pick up on some subtle cues and behaviours that they may ordinarily have considered typical baby behaviour, such as: alertness, interactions, expressions, eye contact, vocalisations and limb movements.

The training also enabled health visitors to see things from the baby's perspective, whereas before, their practice mainly centred on the parent's perspective or how parents related to their babies (as opposed to the other way around). Once learnt, this new knowledge formed part of the health visitor's skillset and observing babies through this new 'lens' became part of their practice, even when not formally using the scale.

Managers included in this study were supportive of the integration of the scale into practice. We identified from the interviews that good organisational and managerial support led to health visitors being enabled and engaged to undertake the training, and felt empowered to use the scale in practice, which are seen as key enablers to the scale's successful implementation.

During the four-month study period, quantitative data was collected for 248 routine 6-8 week postnatal contacts by a health visitor. Within this sample of 248 contacts the m-ADBB was used on 225 occasions (91%) and in 21 cases, health visitors were unable to use the scale due to the baby either sleeping, feeding or being unsettled during the visit. This is consistent with the qualitative findings where health visitors identified the baby's behavioural state (such as hunger, sleep or alertness) as the main barrier to using the scale.

Of the 225 babies assessed using the m-ADBB, concerns relating to baby behaviour were identified in 23 (10%) babies. These concerns were not for social withdrawal per se but related to concerns about the baby's behaviour and interactions with their parents and the health visitor, which could be an indicator for social withdrawal in babies. In these instances, health visitors were able to offer the families further support through interventions within the health visiting service (to include follow-up visits, emotional wellbeing visits, video interaction guidance (VIG)) and referrals to other local targeted and specialist support services (such as specialist perinatal mental health services, orthoptics, dietetics or third sector mental health support). The pathway developed for this study encouraged health visitors trained in the m-ADBB to seek consultation and further guidance from the health visitors trained in the full ADBB if they identified any concerns using the m-ADBB. Where necessary, they could arrange further assessment or a joint visit but, interestingly, support from the ADBB-trained health visitors was only sought on four occasions for advice and reassurance, and only once for a full ADBB assessment (which had not taken place at the point of data collection). When concerns were identified, the m-ADBB-trained health visitors felt able to provide the families with the required support and intervention based on their assessment using the m-ADBB, without the need for a full ADBB assessment.

While health visitors reported it to be feasible to incorporate the m-ADBB into routine 6-8 week checks, the potential usefulness of the scale in routine contacts at other timepoints was also highlighted. Some suggested its use during all assessments of babies. As the full ADBB was not used at the routine 6-8 week contacts or following referrals from m-ADBB-trained health visitors after a 6-8 week baby assessment, we are unable to comment on its feasibility in routine health visitor practice.

In the early stages of implementation, health visitors had anticipated a potential increase in their workload, as a result of the integration of the ADBB/m-ADBB in 6-8 week postnatal contacts. This is not surprising given the decline of health visitor numbers within the clinical workforce, which is estimated to be around 5,000 health visitors in England, an estimated workforce shortage of 40%[21]. The use of the m-ADBB during routine contacts, however, did not require any additional time or effort because health visitors already carry out observations of babies and weigh them during these visits. Instead, incorporating the m-ADBB scale into routine practice enhanced the health visitor's assessment of the baby.

While the integration of the scale into routine health visitor assessments did not negatively impact on the health visiting workload, it was highlighted that it may increase the number of potential referrals for social withdrawal in babies to other services. Although this increase in referrals may have an increased workload impact on already-stretched, wider healthcare services, this could be viewed as an unanticipated positive effect due to the early identification of concerns relating to social withdrawal in babies, preventing further, more complex issues in later years. The impact on referrals in the wider healthcare system should be tested as part of further evaluations.

The benefits of using the scale seemed to go beyond the immediate enhancement of the knowledge of health visitors and of early identification of social withdrawal in babies. Managers viewed the scale as potentially providing a measure for public health profiling to better understand local community needs, although its use for this purpose was not tested in the current study because health visitors did not formally score or document the scores of their assessments using the scale in the baby's clinical record. Instead, they used the scoring to inform their overall assessment of the baby and clinical decision-making. They used the findings of their assessment to promote more baby-focused communication with parents, raising awareness and educating parents about baby behaviour and positive parent-infant relationship.

All 24 (100%) participants (22 health visitors and two managers) would recommend the use of the m-ADBB in routine health visiting practice. This recommendation, however, is based on the way the m-ADBB was used in this study, to enhance health visitor knowledge and skills, and not as a quantitative measure or formal population screening tool. The use of the ADBB/m-ADBB by health visitors has generated quite a lot of interest from colleagues within the service as well as external partner agencies, and interest in extending its use further.

The qualitative data in the study complement the quantitative data. As well as gaining a more in-depth understanding of the implementation process of the scales, through the interviews we were able to further explore the reasons for referrals made and support sought by the m-ADBB health visitors from the full ADBB-trained health visitors. This is seen as a strength of the study.

Chapter 5. Conclusion and recommendations

5.1 Conclusion

This initial study of the ADBB and m-ADBB used in routine 6-8 week checks was received positively by health visitors. The new national 'Healthy Child Programme: Schedule of Interventions Guide', replacing the 2009 Healthy Child Programme, states that where concerns about early relationships and infant mental health and wellbeing are identified, an assessment should be completed to understand the family needs and strengths[11]. There is, however, no information provided within the Schedule of Interventions with regard to the methods that the health visitor might use to identify early relationship and mental health concerns, or recommended validated tools to support their assessment. Therefore, this study provides useful information about the usability of these scales in the context of health visiting in England. It shows that, once trained, health visitors can easily integrate the knowledge from both training programmes (ADBB and m-ADBB) and the use of the m-ADBB into routine practice.

5.2 Recommendations

1. Further research should be carried out to include:
    - Implementation of the m-ADBB across wider health visiting teams in the UK, incorporating formal scoring.
    - Comparison of the rate of concerns identified in babies at 6-8 weeks by health visitors trained in m-ADBB/ADBB with those who are not.
    - Follow-up of the outcomes for babies when concerns are identified at 6-8 weeks using the m-ADBB/ADBB.
    - Exploration of how the percentage of babies for whom there are concerns at 6-8 weeks compare to other studies of the use of the scale at the same timepoint.
    - Testing sensitivity and specificity of the ADBB/m-ADBB in the UK population context.
    - Exploration of the use of the m-ADBB/ADBB at other routine health visitor contacts (for example, with older babies).
    - Exploration of the acceptability of the scale to wider stakeholders including parents/families and commissioners. This should incorporate the acceptability of the scale name (ADBB) and whether a standardised strengths-based descriptor is needed alongside the formal name to make it more user-friendly.
    - Exploration of the differences in measures of baby social withdrawal in families with other known concerns such as mental health problems.
    - Exploration of how the ADBB/m-ADBB and training fits with the Department of Health and Social Care (DHSC) 'prompts for keeping parent-infant relationships in mind', developed from the Leeds Early Attachment Observation (EAO) assessment tool[22].
2. Further discussion with health visitors involved in the Copenhagen Infant Mental Health Project would be helpful in understanding benefits of using the m-ADBB as a first line screening tool compared to the ADBB.
3. Consideration of a UK-based training programme with amendments to the training to align with the UK context, incorporating the training improvement recommendations from this study.
4. Once developed, the UK-based training and its impact in more sites across the UK as a second phase of research and evaluation should be considered.
5. Support systems for health visitors should be considered if the ADBB/m-ADBB scales are adopted within health visiting practice in England, and for those already trained in the use of the ADBB/m-ADBB as part of this study. This should include ongoing Continuing Professional Development, supervision, learning resources and practice opportunities.
6. Consistent and accurate data recording systems need to be set up if the ADBB/m-ADBB are adopted within health visiting practice (i.e. request SNOMED CT codes).

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Appendix - 1: Alarm Distress Baby Scale (ADBB)

Each item is rated on a scale from 0 to 4.

GUEDENEY (2012) ©

(First validation : Guedeney A, Fermanian J. A validity and reliability study of assessment and screening for sustained withdrawal reaction in infancy the alarm distress baby scale (ADBB). Infant Ment Health J. 2001; 22:559–75. doi:10.1002/imhj.1018)

Practitioners using this scale should have completed training in ADBB from an approved training provider. See adbb-scale.com for further information.

0 = No unusual behaviour, or doubt
1 = Slightly unusual behaviour, but sure about it
2 = Clear unusual behaviour
3 = Very obvious unusual behaviour
4 = Massive unusual behaviour at all times

This scale is best rated by the observer on the basis of her/his observations, immediately following the clinical interview. Initially, spontaneous behaviour is assessed, then following stimulation (smile, voice, gesture, touch, etc.), with emphasis on the evolution along time. The rating is what seems more significant during the whole examination procedure.
In case of doubt, use the lowest rating.

1 Facial expression

Observer assesses any reduction of facial expressiveness, through changes in facial expression, rather than intensity of expression:

0: ☐ **1:** ☐ **2:** ☐ **3:** ☐ **4:** ☐

2 Eye contact

Observer assesses the reduction of eye contact : usually the child locks eyes with the observer and maintains eye contact; observer assesses if eye contact is difficult to get and to sustain:

0: ☐ **1:** ☐ **2:** ☐ **3:** ☐ **4:** ☐

3 General level of activity

Observer assesses any failure of motion of the head, torso and limbs without taking into account hands and fingers activity:

0: ☐ **1:** ☐ **2:** ☐ **3:** ☐ **4:** ☐

4 Self-stimulating gestures

Observer assesses the frequency with which the child is engrossed with his/her own body activity: fingers, hand, hair, thumb sucking, repetitive rubbing etc., in a sort of mechanical, non pleasurable way that seems odd and detached from the rest of the activity and does look like sef comfort. One clear odd gesture is enough to score for a 1:

0: ☐ **1:** ☐ **2:** ☐ **3:** ☐ **4:** ☐

5 Vocalisations

Decrease in vocalisations, whether they express pleasure (chirping, laughing, babbling, lallations, highpitched cries of pleasure), or displeasure, anxiety, or pain (screaming, whining, and crying):

0: ☐ **1:** ☐ **2:** ☐ **3:** ☐ **4:** ☐

6 Vividness of response to stimulation

Decrease in the vividness of response to stimulation during the examination (smile, voice, touch). Note: it is not the magnitude of the response that is evaluated here, but the delay of the response; the absence of a response does not allow to rate :

0: ☐ **1:** ☐ **2:** ☐ **3:** ☐ **4:** ☐

7 Relationship

A decrease in the child's ability to relate to the observer, examiner, or anyone else in the room except the child's usual caregiver. Relationship is assessed by behavior, eye contact, response to stimuli:

0: ☐ **1:** ☐ **2:** ☐ **3:** ☐ **4:** ☐

8 Attractiveness

The effort of attention required to maintain contact with the child, and the sense of enjoyment or concern that contact with the child brings, and the subjective sense of duration of the examination :

0: ☐ **1:** ☐ **2:** ☐ **3:** ☐ **4:** ☐

Name: **Age:** **Examiner:** **Total:**

Appendix - 2: Modified Alarm Distress Baby Scale (m-ADBB)

MATTHEY, ČRNČEC, & GUEDENEY (2005) ©
(Derived from the Full ADBB Scale: Guedeney & Fermanian, 2001) Reference as: Matthey S, Črnčec R, Hales A, et al. A description of the modified alarm distress baby scale (M-ADBB): an instrument to assess for infant social withdrawal. Infant Ment Health J. 2013; 34:602–9. doi:10.1002/imhj.21407

Practitioners using this scale should have completed training in m-ADBB from an approved training provider. See adbb-scale.com for further information.

Date: _____ **Infant's age:** _____ **Infant's name:** _____

Examiner: _____

Each item is rated according to the following categories:

0 = Satisfying

1 = Possible problem

2 = Definite problem

This scale is best completed by the observer based on what he or she observes during the examination or test. The clinician should seek to engage the child, through smiles, talking and touching.

1. FACIAL EXPRESSION

Observer assesses any reduction of facial expressiveness, through changes in facial expression, rather than intensity of expression:

☐	**Satisfying:**	Clear positive or negative facial expressiveness, with frequent changes in expression.
☐	**Possible problem:**	Limited facial expressiveness, few changes in expression.
☐	**Definite problem:**	Absence of facial expressivity ; the face appears frozen, during most of the observation.

2. EYE CONTACT

The observer assesses the quality and frequency of the child's eye contact with him or her.

☐	**Satisfying:**	At least one episode of moderate eye contact with several episodes of brief contact in expression.
☐	**Possible problem:**	Only two episodes of brief contact, or up to one moderately prolonged one.
☐	**Definite problem:**	A single brief contact, or vague, elusive, or absent contact.

3. VOCALISATIONS

The observer assesses the frequency of spontaneous pleasure vocalisations, but also the absence of displeasure or protest vocalisations, during the observation.

☐ **Satisfying:**	At least a few short vocalisations (not crying), or one or two longer vocalisations, without crying.
☐ **Possible problem:**	Only very rare vocalisations, without crying, or in their absence, cries in response to stimulation, or repeated whining.
☐ **Definite problem:**	Occasional whining in response to stimulation, or no vocalisations at all, most of the observation.

4. GENERAL LEVEL OF ACTIVITY

The frequency of head, torso and limb movements is assessed without taking into account the frequency of finger and hand movements, both spontaneously and in response to stimuli.

☐ **Satisfying:**	At least moderate spontaneous activity, with some movement of the head, trunk and limbs.
☐ **Possible problem:**	Very low level of spontaneous activity, very little movement of the head and limbs, but response to stimulation.
☐ **Definite problem:**	No spontaneous activity, or very low response to stimulation.

5. RELATIONSHIP

The child's ability to engage in and sustain the relationship with the observer is assessed. The relationship is assessed by attitude towards the other, eye contact, response to stimuli and interaction.

☐ **Satisfying:**	At least a moderate relationship is evident, whether positive or negative, and sustained.
☐ **Possible problem:**	The relationship seems tenuous or even questionable, or only clear when the child screams or objects.
☐ **Definite problem:**	No visible relationship, positive or negative.

TOTAL

Satisfying:

Possible problem:

Definite problem:

Institute of Health Visiting
A Registered Charity Number 1149745
c/o Royal Society for Public Health, John Snow House, 59 Mansell Street, London E1 8AN
Telephone: +44 (0) 207 265 7352 | Email: events@ihv.org.uk
www.ihv.org.uk