0–2s: improving infant emotional development

Summary report

Shift

Product design for social change
0–2s: improving infant emotional development

Shift is investigating how parents can be supported to develop a secure attachment with their children to promote healthy emotional development in the critical early days, from conception to age two. This document is a summary of the research undertaken so far.

Over the past two years Shift has conducted research into infant mental health in order to better understand the causes and risk factors for poor emotional development of infants and what contexts, behaviours and actions have been shown to protect against poor emotional development at this young age.

This included reviews of the academic and policy literature, speaking to numerous experts in the field, from academic experts in infant and parental mental health, to frontline workers such as health visitors. We also conducted a number of depth interviews with disadvantaged parents in a deprived area of Birmingham.

From our research we have developed an evidence based Theory of Change, illustrated in the model in this report. It explains the relationship between numerous interacting factors, and provides a framework for understanding where interventions may be targeted to produce the desired outcome of improving a baby’s emotional development in their first thousand days.
Model of Shift’s Theory of Change

- Baby’s Emotional Development
- Parental Sensitivity
- Attachment Style
- Emotional Wellbeing
- Social Support
- Parenting Knowledge
- Economic and Environmental Context
- Self-Efficacy

Baby or child
(e.g. their temperament or health)
**Description of the model**

**Baby's Emotional Development**
At the very centre of the model is the Baby's Emotional Development. The main aim of our product is to facilitate the optimal emotional development of babies during their first thousand days. The emotional development of babies during this critical period has been shown to have a strong relationship with later emotional, social, economic and health outcomes.

**Quality of Attachment**
The ring around Baby's Emotional Development in the model is Quality of Attachment. Attachment is one specific aspect of the relationship between a child and a parent, with its purpose being to make a child safe, secure and protected. An infant's attachment has been classified into four main types: Secure, Insecure-Avoidant, Insecure-Ambivalent and Disorganised. It is widely accepted that the type of attachment the child has to their primary caregiver is a key predictor of emotional and social development of the child and later adult mental health difficulties, with secure attachment being associated with the most positive outcomes.

**Parental Sensitivity**
The third ring in the model, directly contributes to the type of attachment between infant and parent. Parental Sensitivity refers to a parent's ability to be in tune with their infant's cues and signals and respond correctly and consistently. The more sensitive the parenting, the greater likelihood of secure attachment of the child.

**Parental Self-efficacy**
Self-efficacy is the last full ring in the model. Self-efficacy refers to a person's belief in their ability to succeed in specific situations or accomplish a task. Within the domain of infant emotional development, the term Parental Self-Efficacy (PSE) has emerged, referring to a parent's beliefs in their ability to influence the child and their environment to foster the child's development and success.

Both self-efficacy and parental self-efficacy have an impact on a parent's ability to parent sensitively. Self-efficacy can help a parent deal with challenges that arise in daily life, child related or not e.g. dealing more effectively with a tantrum or a poor housing situation (see environment section below). Dealing with situations more effectively reduces the emotional bandwidth taken up by these challenges leaving more bandwidth available for sensitive responses to their child. There is also substantial evidence to show that parental self-efficacy is associated with parental responsiveness/sensitivity and warmth - the more the parent feels they are able to effectively parent, the more likely it is for them to parent sensitively, interacting responsively with their child.

The segments in the model that border the PSE ring are all factors that contribute to PSE, or, when combined with PSE, contribute to sensitive parental behaviours.

**Economic and Environmental Context**
The segment on the leftmost side of the model is Economic and Environmental Context or hardship. Poverty, and its knock on effects, has been shown to play an important and independent role in worsening child mental health. One way in which poverty impacts a child's emotional development is through poverty-related stressors, such as financial instability, poor housing, and family instability. These stressors take up cognitive bandwidth of parents, which, in turn, can reduce their ability to parent sensitively.

As discussed, parental self-efficacy has a strong link to parental self-efficacy and recent research has suggested that poverty interacts in a bidirectional way with self-efficacy: lower self-efficacy increases the likelihood of experiencing poverty, whilst living in poverty also reduces feelings of self-efficacy. Boosting self-efficacy is particularly valuable, therefore, among disadvantaged families and could help them to cope with the additional stressors of poverty more effectively, also freeing up more time and cognitive bandwidth for interacting with their child.

Finally, poverty also interacts with a parent's emotional state, as it is associated with increased risk of mental health problems, and post-natal depression, which in turn will reduce a parent's ability to parent sensitively.

**Emotional Wellbeing**
The next segment that interacts with PSE is Emotional Wellbeing. This includes the short term mood of the parent, and more broadly their mental health. The more emotionally stable a parent feels, the more attention, love and support they are able to give to their child (who demands a lot of this). At the clinical end of the scale, postnatal depression has been identified as a key risk factor for infant social and emotional difficulties. There is a strong interaction between a parent’s emotional state and how competent they feel as a parent (PSE). For example, very low mood will often come with and/ or lead to and/ or be prompted by a lack of self-belief which in turn would impact the interaction with the child and their attachment.

**Social Support**
The third segment is Social Support. Social support for parents (both broad social networks and specific strong relationships) has been linked to better mental health of mothers, more nurturing behaviour of mothers and better emotional development of children.

Like emotional development, there is a close relationship between social connections and PSE. Knowing there is social support if needed can increase a parent’s feeling/ belief in their ability to do things, and in some cases the social support facilitates specific action e.g. by providing childcare, again increasing PSE.
Parenting Knowledge
The final segment is Parenting Knowledge. This refers to an understanding of developmental norms and milestones, processes of child development, and familiarity with caregiving skills. Having high levels of parental knowledge equips parents with information on appropriate parental behaviour and also prevents them expecting more of their child than they are capable of at a particular age. However, knowledge alone doesn’t result in sensitive parenting, instead knowledge interacts with self-efficacy to influence parenting sensitivity. When parents have high self-efficacy, the greater the knowledge the more sensitive the parenting, while with parents with low self-efficacy the amount of parenting knowledge they have makes no difference to how sensitively they parent. Additionally, if a parent has high self-efficacy but very poor knowledge it can actually result in particularly poor parenting - with the parents in this group being called “naively confident”.

The Baby or Child
The bottom half of the semicircle represents the child who also influences the parent-child dyad, albeit to a lesser degree than the parent. Variables such as inherent temperament of the child, and their physical health, including whether they were born pre-term, have been shown to influence the parent - child relationship. As these aspects of the child are relatively fixed, our product/service will aim to influence how the parent responds to their child, rather than aiming to change the child-based elements themselves.

Opportunities for Design and Innovation
For those interested in improving infant mental health, the outer segments provide an interesting space for design and innovation. By providing parents with products and services that support one or more of the outer segments (Parental Knowledge, Emotional Wellbeing, Social Connections and Economic and Environmental Context) it will, in turn, contribute to increasing their parental self-efficacy, and thus their parental sensitivity. Valuable support could span anything from information provision (providing content e.g. when should my baby start on solids, and/or strategies e.g. what should I do if my baby won’t breastfeed?) to a product that leads to a sense of connectedness to others. Anything that supports these outer segments will ultimately ripple into the centre to support a positive parent-child attachment and infant emotional development.
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