

What About The Children?



Patrons: Sir Michael Morpurgo, Rebecca Abrams, Sir John Timpson, Dame Sarah Storey

RESEARCH SUMMARY

Unresolved trauma and reorganization in mothers: Attachment and neuroscience perspectives

Iyengar U, Rajhans P, Fonagy P, Strathearn L and Kim S. (2019)
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Motherhood is stressful, and early motherhood particularly so. All women undergo significant psychological and neurological changes during and immediately after pregnancy to prepare them to care for their babies. These changes are particularly stressful for women who have undergone, but not fully resolved, traumatic experiences in the past. It is widely understood that women with this type of background can find it hard to care for their infants, leading to insecure attachment in the infants and to insecurity and its associated problems cascading down the generations. The Dynamic Maturational Model of Attachment and Adaptation (DMM) provides a framework for a process through which individuals with unresolved trauma can work towards a position in which they can form attached relationships through increased understanding of the trauma in their past. Previous studies have shown that mothers with unresolved trauma who work through this process, known as attachment reorganisation, can bond securely with their infants. This suggests that the intergenerational chain can be broken, but further research is still needed.

In this paper Uditia Iyengar, a psychiatrist working at King's College, London, and her colleagues in the UK and USA, review what is known about the concept of attachment reorganisation and its potential for improving the outcomes for the children of mothers with unresolved trauma. This review brings both a neurological and a psychological perspective to the issue.

Iyengar and her colleagues introduce the review by explaining that, when a baby is born, the mother re-focuses her attention and emotional investment towards her infant. The development of this uniquely sensitive response is described in the theory of attachment, and it includes both neurobiological and hormonal changes. Although most mothers find these changes rewarding, they always pose challenges and particularly so for mothers with difficult childhood experiences, mental illness or other unresolved trauma. However, mothers who think through and resolve these past experiences can often develop consistent loving relationships with their infants.

Attachment theory states that, in early motherhood, women are uniquely preoccupied by, and attuned to, their infants' needs. This can be seen as an adaptive process through which mothers learn to identify with their infants while allowing them to develop a secure sense of self. John Bowlby, working in the 1960s and 70s, was the first to develop these ideas into a formal theory – attachment theory – and to suggest that the children of emotionally sensitive and responsive mothers will become securely attached, leading to many positive child development outcomes. Thus, the relationship between mother and child sets a pattern for that child's future relationships, their psychological and emotional health into adulthood, and their own parenting approach when that stage is reached.

Attachment theory can also be used to understand how people differ in their response to stress. On average, securely attached infants develop into individuals who are better able to deal with threats, danger and even just rapid change than insecurely attached ones. This suggests that attachment may even have evolved as a protective strategy to help individuals and thus the species survive in stressful environments.

The transition to motherhood can also be viewed from a neurological perspective. Imaging has shown that women's brain structure changes significantly during pregnancy and just after birth, particularly in brain areas that have been associated with social cognition and the theory of mind. Increases in the grey matter in some of these areas have been associated with a positive emotional response to a mother's own infant. Similarly, in first-time mothers with securely attached infants, the so-called 'reward pathway' of the brain is strongly stimulated when the mothers view their own infants' faces, whether they are happy or sad. Interestingly, in mothers with insecurely attached infants, the reward pathways are only stimulated when they see a happy face: in these mothers, brain areas associated with feelings of pain or disgust are stimulated by pictures of their infants' sad faces. This strongly

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suggests that attachment will determine how mothers respond to their infants when they are in distress, and that this, in turn, will affect the babies' emotional development. As secure attachment is more unusual in women who have experienced trauma, there are clear neurological as well as psychological processes through which trauma can be passed down the generations.

These neurological and psychological changes are both particularly difficult and particularly important in new mothers with unprocessed traumatic memories. These, which Selma Fraiberg of the University of Michigan memorably termed 'ghosts in the nursery', can hinder a mother's sensitive response to her child. In these cases, the memories are either dwelt on (hyperarousal) or blocked out (dissociation). Mothers who are preoccupied by past trauma will tend to be hyper-responsive to their infants' distress, while those who block it out will respond inadequately. However, not all people who suffer trauma respond in one of these ways. Some are able to integrate traumatic memories into their experience and learn from them; in these cases, the trauma is said to be resolved.

Both types of unresolved trauma have been linked to psychiatric disorders, including borderline personality disorder, and to substance misuse. This, in turn, is linked to difficulties with parenting; mothers – and fathers – who have psychiatric disorders or who abuse drugs or alcohol are more likely than others to abuse or neglect their children. Furthermore, the two types of unresolved trauma have different effects on brain function. Hyperarousal is associated with increased activity in brain regions associated with regulation of emotion and decreased activity in the amygdala, whereas this pattern is reversed in patients with dissociated trauma. The amygdala is a small region of the brain that is involved in the processing of emotions such as fear and anger. Several studies have shown that mothers suffering from unresolved trauma display unusual – mostly attenuated, but occasionally exaggerated – amygdala response when viewing pictures of their own distressed infants, either reacting in an unnaturally fearful or angry way or hardly reacting at all. Another study of substance-abusing mothers, almost all of whom had unresolved trauma, showed a blunted neurological response to pictures of their infants smiling. Taken together, these results show that unresolved trauma limits a mother's emotional response to her infant, potentially, at least, transmitting that trauma to the next generation.

Fraiberg was the first to suggest that mothers who can process their past trauma are less likely to transmit these 'ghosts in the nursery' to their children and more likely to develop secure and loving relationships with them. In particular, mothers who, despite their trauma, are able to reflect on and understand their infants' mental and emotional states – an ability that is termed 'mentalising' – will develop secure relationships with their young children. In contrast, the children of mothers who cannot reflect in this way generally become insecurely attached. This suggests that mentalising leads to reorganisation of attachment. This leads to a state that some psychologists have termed 'earned security' and that can break the transmission of adverse experiences down the generations. However, reorganisation is a fluid process, and individuals undergoing it may at times revert to traumatised patterns of thinking.

Iyengar and her colleagues commented on their experience in clinical practice, in which, out of a group of mothers with severe trauma, all those who they considered to be reorganising their attachment had infants who were securely attached. Crucially, these mothers had not necessarily reached the point of earned security: it was the fact that they were undergoing the process that was important.

To illustrate this, they described two case studies of mothers they named Jenny and Blair: Jenny was reorganising, but Blair was not. During interviews, Jenny attempted to work through why her abusive and alcoholic father had behaved in the way he did, whereas Blair struggled to reflect on her brother's death, instead talking in platitudes: '*what doesn't kill you makes you stronger*'. These responses suggest to the authors that, at least at present, Jenny is more likely than Blair to respond to her infant in the sensitive, attuned way that leads to secure attachment.

In conclusion, Iyengar and her colleagues summarise evidence from both attachment theory and psychological and neurological research to suggest that, during the critical early years, a mother who has experienced trauma can protect her infant from her own traumatic experiences through the process of attachment reorganisation. Infants of mothers who have worked through this process may be as likely to develop secure attachment as those whose mothers have no traumatic experiences to resolve. Further studies, particularly clinical ones, will be needed to fully understand the value of this approach in preventing the transmission of trauma between the generations.

Dr Clare Sansom