

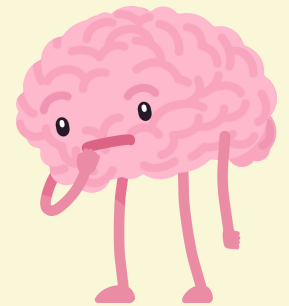
The stress system response to maltreatment

When we're stressed, our body releases cortisol, known as the 'stress hormone,' which helps us respond quickly to danger, like in a 'fight or flight' situation. Some stress is normal for children and young people, and it helps them learn to handle physical, emotional, and social challenges. However, being under intense stress for a long time can harm the brain's function. (Woolgar 2013)



When cortisol levels reach a critical threshold, a feedback loop known as the HPA axis is activated. This mechanism reduces the activity of the stress system to protect the body (Woolgar, 2013). In children who have experienced maltreatment, this system can be either chronically elevated or chronically suppressed. Elevated cortisol levels are associated with increased anxiety and fearfulness, preparing the child for potential threats. In contrast, a suppressed system helps the child function as best as possible.

Three interconnected areas of the brain are particularly sensitive to chronic stress: the amygdala, the hippocampus, and the prefrontal cortex. The amygdala is responsible for emotional processing. At birth, infants have little to no ability to regulate their emotions, so primary carers play an important role in helping them learn to self-soothe by providing reassurance. However, if the amygdala becomes overstimulated due to repeated stress, it can become overactive during challenging situations. This can lead the child to perceive threats everywhere and respond with heightened emotions to minor incidents. (Brown and Ward, 2013)



The hippocampus and prefrontal cortex continue to develop throughout childhood and are essential for higher cognitive functions, including planning, reasoning, self-regulation, mood control, and impulse control. Chronic stress can damage the prefrontal cortex, hindering the development of these critical skills, which can have lasting effects on future learning, behaviour, and overall health (Brown and Ward, 2013).

These changes are a way for children to adapt to inadequate caregiving environments. However, when a child moves to a safer environment, these adaptations may become unhelpful, leading them to misinterpret nurturing behaviour as anxious or threatening. Nevertheless, research indicates that transitioning to a safer environment can help stabilise this emotional dysregulation (Woolgar, 2013).



References

- Brown R and Ward H (2013) Decision-making within a Child's Timeframe. [Decision-making within a child s timeframe.pdf](#)
- [The practical implications of the emerging findings in the neurobiology of maltreatment for looked after and adopted children: recognising the diversity of outcomes - Matt Woolgar, 2013](#)