

## Does non-clinical maternal depression have a lasting effect on mother-infant interactions?

The special emotional bond that forms between a mother and her infant appears very early in life. Integral to this relationship is the infant's ability to be able to detect contingencies between his or her own behavior and that of the mother's behavior during social interactions. These exchanges between mother and infant enable the infant to learn about what he or she should expect from his or her mother and, more broadly, how to engage with the surrounding social world. During a typical interaction, the mother may smile or laugh while looking at her infant, which may prompt the infant to respond with a similar facial gesture and, in turn, the mother may react by smiling or speaking positively to her infant. After several similar interactions, infants eventually learn that their mothers respond to their behaviors in a consistent manner.

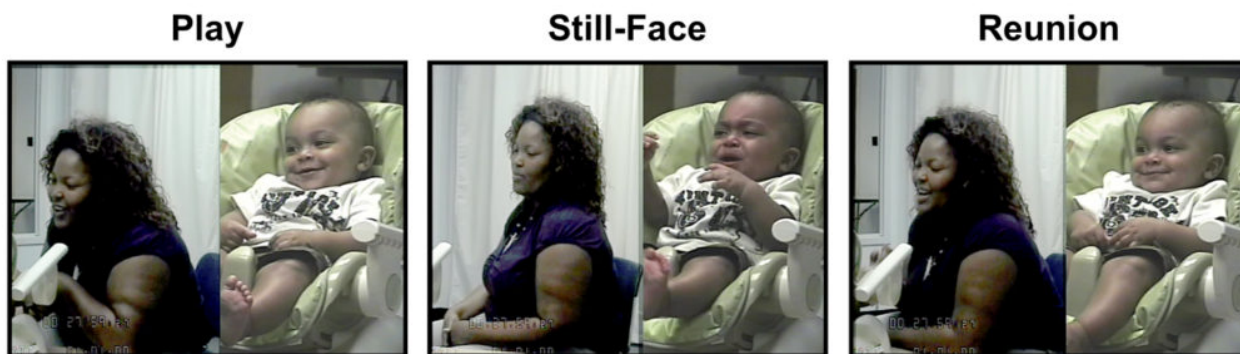


Fig. 1. Still-Face Paradigm (SFP) consists of three, 2-minute phases: Play: mother plays with her infant as usual; Still-Face: mother maintains neutral facial expression while looking at her infant; Reunion: mother resumes playing with her infant.

When this typical pattern of behavior is interrupted in the laboratory by having the mother look at her infant with a neutral expression or 'still face', the infant's behavior changes to try and re-engage the mother, and when this is unsuccessful, the infant becomes upset until the mother interacts with them once more. When clinically depressed mothers behave similarly, their infants display a blunted emotional response, not showing the magnitude of negative emotionality as infants of non-depressed mothers. This pattern of behavior is presumed to be the result of infants becoming accustomed to their mothers' decreased responsiveness and flattened affect, which are behaviors that are mirrored in the laboratory 'still face' task. Compared to the percentage of mothers who are diagnosed as clinically depressed, a larger proportion of mothers may display elevated but non-clinical levels of depression, which may also influence their interactions with their infants as well as their infants' behaviors.

The current study used a well-known infant task known as the Still-Face-Paradigm (SFP) to assess the longitudinal effects of elevated but non-clinical levels of maternal depression on mothers' and infants' behaviors in 63 mother-infant dyads when the infants were 5 and 9 months of age. Self-reported maternal depression was assessed at 5 months. During the SFP, mothers and infants interacted for three, 2-minute phases: Play, Still-Face, Reunion (Fig. 1). During the Play and Reunion phases, mothers were instructed to interact and play with their infants as they normally would. During the Still Face phase, mothers were signaled to stop and assume a neutral expression while looking at their infants without talking or touching. Various infant and maternal behaviors were coded and analyzed.

The results of the study showed that like mothers with clinical depression, infants of mothers with elevated but non-clinical levels of depression displayed decreased levels of negative engagement during the Still-Face phase of the SFP at 5 months of age (Fig. 2-left). By the time infants reached 9 months of age, infants of mothers with elevated levels of depression no longer displayed blunted negative engagement (Fig. 2-right), suggesting there was no long-lasting influence of maternal depression on infants' behaviors. Surprisingly, elevated levels of depression did not influence maternal behaviors at either 5 or 9 months of age.

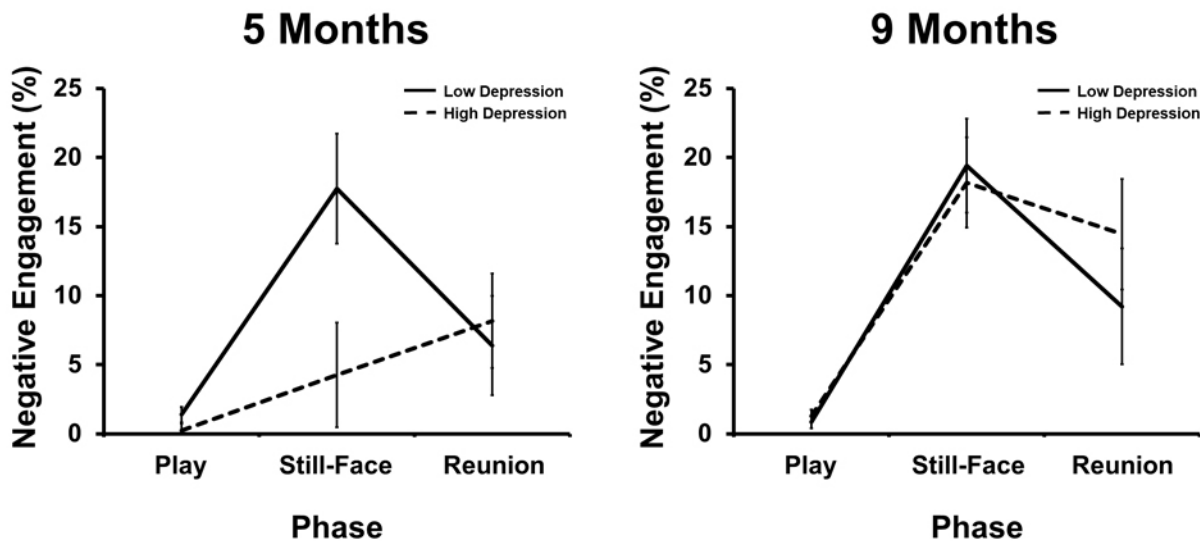


Fig. 2. Effects of non-clinical maternal depression on infants' behavior during the still-face paradigm. (A) Infants of mothers with high levels of depression (high maternal depression, dashed line) displayed less negative engagement behaviors during the still-face phase compared to infants of mothers with low levels of depression (low maternal depression, solid line) at 5 months, but not at (B) 9 months.

These findings suggest that even non-clinical levels of maternal depression can have important implications for mother-infant relationships, even if the negative effects are not long term. Thus, clinicians may want to consider discussing potential intervention programs such as Parent Child Interaction Therapy with mothers who have elevated levels of depression, even if they do not meet the clinical cutoff. Ultimately, this may improve the mother-infant bond, which has been shown to affect infants' social and emotional development across the lifespan.

***Vanessa Vieites, Bethany C. Reeb-Sutherland***  
*Department of Psychology, Florida International University, USA*

## **Publication**

[Individual differences in non-clinical maternal depression impact infant affect and behavior during the still-face paradigm across the first year.](#)

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