

## **Individual differences in infants' stress reactivity**

### **ABSTRACT:**

Individual differences in infant stress reactivity may have a lasting effect on development. The goal of this project was to explore individual differences in infants' reactivity to a repeated standard stressor, the Face to Face Still Face (FFSF) in which periods of face-to-face play are alternated with periods in which the mother maintains a "poker" face and does not engage the infant. The play and FFSF were repeated until either the infant became distressed (crying for 30 seconds) or the infant completed three SF-Play repetitions. Two baseline salivary samples were followed by three post-distressed samples to allow tracking of response and recovery. This design resulted in two stress categories, infants who exhibited distress and did not complete the paradigm and infants who did complete the paradigm. There were no differences in salivary cortisol or sAA between the two groups. However, a positive relationship was found between baseline cortisol levels and the peak post-stress levels suggesting that the Law of Initial Values may not need to be considered when analysing salivary cortisol changes in infants. The findings also highlight the importance of considering baseline values in stress reactivity. A statistical trend showed that infants who dropped out had greater baseline cortisol and sAA levels. In conclusion, the findings question the use of salivary cortisol and salivary alpha-amylase as measures of social stress in early infancy. The results also suggest that we have yet to identify appropriate measures of individual differences in infants' stress reactivity. The finding of a relation between cortisol baseline levels and reactivity suggests that there are indeed individual differences in cortisol functioning.

### **Keywords**

Infant, Individual differences, Emotional development, Stress psychophysiology

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