



# Is prenatal stress bad for babies? It depends on maternal perception

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## Abstract

Maternal experiences of distress during pregnancy have been found to affect fetal development, showing an impact on both child developmental and behavioural outcomes later in life<sup>2</sup>. The aim of this study was to explore whether (1) psychological and physiological indicators of maternal prenatal stress during pregnancy predict infant state-regulation and (2) if these factors can have positive effects on infant development. Data from a prospective cohort<sup>3</sup> was gathered from mothers during pregnancy and their children at 3 months of age. Using an ecological momentary assessment technique, we collected diurnal salivary cortisol, salivary alpha-amylase (sAA) and self-reported mood information over 3 consecutive days during pregnancy. Mother's reported on their infant's temperament (Infant Behaviour Questionnaire-Revised<sup>1</sup>), amount of crying (Crying Patterns Questionnaire<sup>5</sup>) and sleep (Brief Infant Sleep Questionnaire<sup>4</sup>). Mother-infant pairs were divided into groups based on level of maternal psychological distress (Profile of Mood States). Separate bivariate and partial correlations between maternal indicators of physiological stress (cortisol and sAA) and infant outcomes were calculated for mother-infant pairs in the highest and lowest quartiles of psychological distress. Mothers with the highest levels of psychological and physiological distress had infants with poorest temperament, crying and sleep outcomes. In contrast, mothers with the lowest levels of psychological distress, but who had high levels of cortisol and sAA had the best infant outcomes. Therefore, the effects of prenatal cortisol and autonomic function (as indicated by sAA) on infant development are different for mothers high and low in psychological distress.

## References

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