HUMAN DEVELOPMENT AND FAMILY STUDIES

DISSERTATION DEFENSE

FOR LAUREN PHILBROOK

TITLE: LONGITUDINAL ASSOCIATIONS BETWEEN PARENTING AND INFANT REGULATION

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ABSTRACT

One important but poorly understood component of parenting young children involves promoting the regulation of basic physiological systems. These include sleep and neuroendocrine functioning, both of which are foundational for healthy social and emotional development. These regulatory processes, however, are complexly determined. They are rooted in biology but are also in continuous transaction with the environment, and there is evidence that children’s physiological regulation both impacts and is impacted by quality of parenting. To date, few studies have been sufficiently designed to enable an exploration of these bidirectional effects. This dissertation aimed to elucidate how parenting and child regulation influence one another, looking specifically at child regulatory processes of sleep (Study I) and neuroendocrine functioning (Study II). In doing so, particular attention was given to quality of parenting during children’s bedtimes and during the night. Parenting in child sleep contexts has rarely been studied observationally, and these contexts may pose regulatory challenges for infants and be stressful for parents as well.

Data for both studies were drawn from a larger NIH-funded study of 167 families. Study I used multilevel modeling to explore how maternal emotional availability (EA) at bedtime and time spent
engaged in specific parenting practices were concurrently and longitudinally associated with infant nighttime distress and sleep across the first six months. At time points when mothers were more emotionally available at bedtime, infants were less distressed and slept more of the night. At time points when infants co-slept more with a parent they also tended to be less distressed, though on average more co-sleeping was linked to less infant sleep. Higher EA in combination with less close contact at bedtime was associated with more infant sleep across the night on average. Furthermore, less nursing at bedtime predicted a more rapid increase in infant sleep with age, as did the combination of higher maternal EA and fewer arousing activities at bedtime. There was also evidence of infant-driven effects, as higher infant nighttime distress predicted lower EA at the following time point.

Study II used multilevel modeling to examine how parenting at bedtime and nighttime was concurrently and longitudinally associated with infant nighttime cortisol levels and patterning across the first year. Infants had higher cortisol levels at time points when they were more distressed and when their mothers were less emotionally available or awakened them more often during the night. However, on average infants whose mothers responded more often to their nighttime distress had lower cortisol levels. Higher maternal EA was also associated with change in infant cortisol across the night, whereas lower EA predicted a pattern of less overnight change, which was maintained across time. Additionally, higher infant morning cortisol predicted lower maternal EA at the following time point above and beyond the effect of infant nighttime distress.

This dissertation contributes to a larger body of literature addressing bidirectional relationships between parent and child. The results support a bidirectional model of relations between parenting and infant regulation, in that parenting was predictive of developmental change in infant sleep patterning and neuroendocrine functioning, infants were sensitive to variation in maternal care, and mothers were sensitive to variation in their infant's regulation. The findings also point to the utility of observing parent-child dynamics in child sleep contexts, which may be particularly helpful in elucidating the complex linkages between parenting and early childhood physiological regulation.