



THE ASSOCIATIONS BETWEEN MATERNAL AND PATERNAL STRESS DURING PREGNANCY AND NEWBORN OUTCOMES

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High prenatal maternal stress is associated with newborn neurodevelopmental outcomes (Lin et al, 2017; Ostlund et al, 2019). Little is known about whether prenatal paternal stress is associated with prenatal maternal stress or newborn neurodevelopmental outcomes. Filling this gap is important for understanding relations associated with newborn neurodevelopment in order to improve parental prenatal care and influence public policy. Data were gathered from a longitudinal study of pregnant women and their partners ($N = 90$). Participants were interviewed about relationships, finances and social supports by trained experimenters to ascertain chronic and acute stress. Trained professionals examined newborns using the NICU Network Neurobehavior Scale (Lester & Tronick, 2004). Newborn attention was measured as the ability to maintain attention and visual tracking. Newborn arousal was measured as level of irritability, fussiness and motor activity. When maternal episodic stress was high so was paternal episodic stress ($r = .37, p > .001$). Similarly, high maternal chronic stress was associated with high paternal chronic stress ($r = .39, p > .001$). Newborn arousal was lower ($r = -.198, p > .014$) and newborn attention was also lower ($r = -.180, p > .025$) when maternal acute stress was high. No significant relations were found between paternal stress and newborn attention and arousal. The relations between maternal and paternal stress suggest mothers and their partners experience stress similarly. The association between prenatal maternal stress and newborn outcomes suggest acute maternal stress is correlated with fetal neurodevelopment. The implication of these findings is that the level of maternal stress may be an indicator of the level of stress her partner also experiences. These results provide a glimpse into how maternal and paternal dyads interact which could inform future intervention and support programs for parents. Findings also suggest newborn neurodevelopment would benefit from support programs aimed to ease maternal stress during prenatal care.

References

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