



**EXAMINING THE COMBINED EFFECTS OF SOCIAL SUPPORT AND MATERNAL
PRENATAL MOOD ON NEWBORN NEUROBEHAVIOR**

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ABSTRACT

A large body of research shows that exposure to maternal prenatal anxiety may be linked to adverse birth outcomes and impaired psychophysiological functioning in infancy (Barker, Jaffee, Uher, & Maughan, 2011). The majority of research has been focused on birth outcomes leaving a gap in the literature of the effects on newborn neurobehavior. It is important to understand what influences neurodevelopmental outcomes because short term (e.g. birth outcomes) and long-term effects (e.g. maladaptive behavior) on the infant could be prevented through the development of reliable measures to detect such influences. There is also supportive evidence that social interactions are protective against the health consequences of life stress (Ozbay, Johnson, Dimoulas, Morgan, Charney, & Southwick, 2007) particularly during pregnancy (Barker et al., 2011). Such findings warrant further exploration of the interaction between prenatal anxiety and social support effects combined in order to identify pathways to reduce the effects of maternal adversity and ensure better developmental outcomes for the offspring.

We examined whether the effect of prenatal maternal mood operationalized as pregnancy specific anxiety on newborn neurobehavior would be moderated by social support during pregnancy. Participants included 100 mothers and 96 infants from diverse ethnic backgrounds. Mothers were recruited during the last trimester of their pregnancy and measured for pregnancy

specific anxiety (PSA), and social support (SS). Infants were assessed within the first 48 hours of life by certified examiners with the NICU Network Neurobehavioral Scale (NNS).

We hypothesized that pregnancy specific anxiety would be positively correlated to physical and neurological signs of stress on the infant. We found there was a significant association between pregnancy specific anxiety and hypotonicity; as maternal pregnancy specific anxiety increased, infant's muscle tone or tension decreased. We also predicted that as social support increased, the negative effects of pregnancy specific anxiety on newborn outcomes would decrease in intensity. There was a significant negative correlation between pregnancy specific anxiety and social support scores. We did not find, however, any significant results that suggest that social support would act as a buffer of the effects of pregnancy specific anxiety on newborn neurobehavior. Our findings indicate that pregnancy specific anxiety has some influence on newborn developmental outcomes although further exploration is required. Consistent with previous studies, social support has an effect on the levels of anxiety perceived by the mother during pregnancy.

Key Words: Social support, pregnancy specific anxiety, newborn neurobehavior