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Maternal depression and infant temperament characteristics☆

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Abstract

One hundred-thirty-nine women participated in this longitudinal study from the third trimester of pregnancy through 8-months postpartum. Women completed depression scales at several time points and rated their infant's characteristics and childcare stress at 2- and 6-months postpartum. Mothers' reports of infant temperament were significantly different for depressed and non-depressed mothers, with depressed mothers reporting more difficult infants at both measurement points. These differences remained after controlling for histories of maternal abuse or prenatal anxiety, which occurred more often in the depressed mothers. There were no significant differences in childcare stress or perceived support between the groups. Infant temperament and childcare stress did not change over time. Recommendations for practice include consistent ongoing evaluations of the "goodness of fit" within the dyad and exploring interventions for depressed mothers that provide guidance about interactions with their infants and the appropriateness of the infant behaviors.

Keywords: Maternal; Infant; Temperament; Depression; Stress; Parenting

Postpartum depression has the potential for long lasting effects for both the mother and the infant. No one schema for describing the etiology and presentation for postpartum depression has been identified. What is known is that many different risk factors have been found to be at least moderately correlated with the presentation of postpartum depression (Beck, 2006). Included in these are a history of depression (preconception or prenatal), high stress level, high anxiety, and little or no social support. Although no single factor can be attributed to predicating postpartum depression, the combination of factors does seem very important in understanding both the short- and long-term outcomes as well as what strategies might be best for intervention.

Caring for a newborn can be a joyous event that comes with new responsibilities and burdens often related to juggling the needs of the child with the personal needs of the mother and family. Most mothers assimilate these new responsibilities with the other tasks of daily living. As the assimilation occurs, synchronicity in the mother–infant relationship develops (Coplan, O'Neil, & Arbeau, 2005; Pauli-Pott, Mertesacker, Bade, Bauer, & Beckmann, 2000; Pauli-Pott, Mertesacker, & Beckmann, 2000; Rothbart & Bates, 1998). Synchronicity in this relationship supports optimal growth and development for the child (Jacobson & Melvin, 1995; Rothbart & Bates, 1998). However, for the mother with postpartum depression, care of a newborn might be overwhelming, leading to increased stress, anxiety, and increasing feelings of isolation.

☆ This research was conducted in accordance with APA ethical standards in the treatment of the study sample.

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Studies over several decades suggest several characteristics associated with maternal mood may have a relationship to the perception of infant characteristics. Field et al.'s (1985) early work with a matched sample of 12 women with pregnancy problems and 12 without problems found that the depressed mothers felt they had less positive infant interactions than those who were not depressed. Several investigations since that time revealed maternal characteristics, including prenatal stress, anxiety, personality structure, and depression, appear to define maternal perception of infant mood and behavior (Table 1). Pauli-Pott and associates (2000) reported in a study of 101 mothers and their 4-month-old infants that there was no relationship between maternal depression and independent observer ratings of infant emotionality. These findings suggest that maternal mood states alter the mother's perception of her infant's characteristics.

The presence of maternal depression does affect the synchronicity in the mother's, father's, and infant's relationships (Edhborg, Seimyr, Lundh, & Widstrom, 2000; Edhborg, Matthiesen, Lundh, & Widstrom, 2005). Moreover, the reciprocal interaction between maternal perception and infant behavior also has an effect on the relationship (Pauli-Pott, Mertesacker, Bade, et al., 2000; Pauli-Pott, Mertesacker, & Beckmann, 2000; Sugawara, Kitamura, Toda, & Shima, 1999). Recent investigations report that negative emotional reactions from depressed mothers elicit infant reactions of fear and withdrawal as recorded by independent observation (Pauli-Pott, Mertesacker, Bade, Haverkock, & Beckmann, 2003). These negative feelings alter the maternal perception of childrearing stress, further confound the developing dyadic relationship, and provide more reason for the mother to dislike the temperament of the infant (Möhler, Parzer, Brunner, Wiebel, & Resch, 2006). An infant who is active and demanding can seem more difficult for the mother who is also struggling with postpartum depression, potentially escalating the depressive symptoms and the occurrence of more negative outcomes. These depressive feelings in the mother can lead to long-term emotional and cognitive impairment for the infant (Beck, 2001, 1995).

Infant temperament has been defined as the infant's behavioral style. It is how they behave in relationship to the environment and caregiving they receive (Thomas & Chess, 1977). How the child's temperament is exhibited and perceived affects the developing relationship between the infant and mother. When there is synchrony within this dyad there is said to be "Goodness of Fit." When synchrony is lacking, the infant is perceived as difficult and/or demanding by the mother (Coplan et al., 2005) and the asynchrony of the relationship predisposes the infant to long-term negative outcomes. As the primary caretaker, maternal perceptions of infant temperament are important. Maternal perceptions and beliefs about the attributes of the infant affect how they care for their infant and the symbiotic relationship that will support the child's cognitive development (Jacobson & Melvin, 1995). Thus, infant temperament has been measured by asking mothers about their perception of their infant's characteristics and behaviors. How do they perceive the infant? Is the infant is calm or demanding? How easily is the infant consoled or is he/she inconsolable? Understanding the mother's perceptions about her infant's behaviors provides insight into the appropriateness of her expectations. Yet an overriding question is whether the mother's perceptions of her infant and her childrearing stress are stable over time. Thus, the purpose of this study was to: (a) determine whether there were differences in infant temperament ratings or child care stress of self-selected women who were depressed during the third trimester of pregnancy or during months 2 and 6 postpartum with non-depressed women and (b) explore changes in mother's perceptions of infant temperament and child care stress over time. The data reported here are from a longitudinal study of childbearing health of abused and nonabused women (authors' names removed for blind review).

1. Method

1.1. Participants

English-speaking women ($N = 139$) in their third trimester of pregnancy were recruited from care provider's offices in the Pacific Northwest. Inclusion criteria included being at least 18 years of age, having the ability to read and write in English, and a willingness to participate through mail or telephone surveys during the postpartum period in a study about postpartum depression. It was necessary to include a choice to participants for the preferred method of postpartum data collection because a number of women had abuse experiences; the woman's ability to choose the data collection method that maintained her privacy also helped to maintain her safety. There were no exclusion criteria. The study was approved by the institutional review boards for the university and the hospital. A certificate of confidentiality was issued by the National Institutes of Health. All women signed the consent form prior to the initial data collection.