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An ecological analysis of infant neglect by adolescent mothers

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ABSTRACT

To inform efforts to prevent child neglect, we investigated a wide range of risk factors that have been largely unexamined in relation to infant neglect, the most commonly occurring form of child maltreatment. Using an ecological model of child neglect, we assessed the influence of characteristics at the level of the child, the mother, the family, and broader childrearing contexts on adolescent mothers' likelihood of being a perpetrator in a substantiated case of neglect against their firstborn infants ($n = 383$, $M = 12$ months). Several factors were associated with infant neglect by young mothers: median block income, low infant birth weight, maternal smoking, maternal childhood history of neglect and of positive care, intimate partner violence (IPV) perpetrated by either the mother or her partner, and maternal use of mental health services. In multivariate models, income, a maternal childhood history of positive care, IPV by either a mother or her partner, and mental health service usage made significant contributions to the odds that a mother neglected her infant. Our findings suggest that these factors have particular salience to policymakers' and practitioners' efforts to identify high risk families and to intervene during the earliest months of life to prevent child neglect.

The statistics on child maltreatment in the United States are sobering: an estimated 681,000 children were abused or neglected in 2011 (U.S. Department of Health and Human Services [USDHHS], 2012), and child maltreatment costs the country more than $103.8 billion annually (Wang & Holton, 2007). Approximately 78% of these children experienced neglect, either alone or in combination with other forms of maltreatment (USDHHS, 2012). Children under five years of age are neglected more often than children in any other age group, and infants under one year are in greatest danger of being maltreated (20.6 per 1,000 in 2010). These young victims disproportionately suffer neglect compared to other forms of maltreatment, as well as its most severe consequences (DeBellis, 2005; Hildyard & Wolfe, 2002; USDHHS, 2012). Documented effects of neglect on young children include serious disturbances in cognitive, social, emotional, physical, and brain development that often surpass deficits observed in their physically abused peers (DeBellis, 2005; Manly, Kim, Rogosch, & Cicchetti, 2001).

The considerable human, financial, and societal toll of infant neglect suggests the need for scientific evidence on its etiology, as little is known about how to stop neglect from occurring in the first place. Despite the fact that neglect comprises the largest number of victims, and that very young children are affected most often, the empirical literature on child maltreatment historically has focused on the abuse of older children (Erickson & Egeland, 2011). While child neglect has gained notoriety as a public health concern in recent years (American Humane Association, 2010; National Alliance of Children's Trust and Prevention Funds, 2011), most studies emphasize the consequences of neglect rather than its causes, even though understanding causality is most salient to prevention (DePanfilis & Dubowitz, 2005). This gap presents an important

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opportunity for researchers to generate a sufficient evidence base for policymakers and practitioners to develop effective preventive interventions.

One reason for the paucity of prevention research on infant neglect is its complex etiology and presentation (Dubowitz et al., 2005). Neglect is multiply determined (DePanfilis & Dubowitz, 2005), can take many forms (e.g., failure to provide for a child's physical, emotional, educational, medical, or supervisory needs), and is difficult to detect, posing considerable challenges to researchers (DePanfilis, 2006). Given the multi-causal nature of neglect, an ecological model has been "the dominant theoretical framework for understanding the casual pathways to maltreatment" (Daro, Barringer, & English, 2009, p. 3). An ecological approach to understanding neglect implicates interactions among risk and protective factors at multiple levels, including the individual child, parent, family, and the broader environmental context (Belsky, 1993; Bronfenbrenner & Morris, 2006; Cicchetti & Valentino, 2006). This approach stands in stark contrast to traditional conceptions of neglect as emerging from parental deficits alone. Studies conducted from this vantage point risk failure to explore the full range of causes and may result in blaming parents for exposure to stressors over which they have little control (e.g., poverty, childhood histories of abuse and neglect). An ecological model, on the other hand, facilitates the identification of individual, interpersonal, and environmental barriers to healthy parenting that can be modified through preventive intervention (Daro et al., 2009).

In addition to a need for further research on factors that either contribute to or reduce the chances that a child experiences neglect, a major challenge to effective prevention is that the period of infancy has gone largely unexplored in the empirical literature (Brodowski et al., 2008). Recent advances in multi-level research on risk and protective factors are encouraging (Schumacher, Smith Slep, & Heyman, 2001; Sedlak et al., 2010; Slack et al., 2011), but there are still few studies particular to the period of infancy, when neglectful parenting behaviors typically first develop (USDHHS, 2012).

Another impediment to research on infant neglect is its low incidence in study samples. Neglect is greatly underreported to child protective services (CPS; Tyler, Allison, & Winsler, 2006), and even elevated rates of maltreatment among infants (21.2 per 1,000; USDHHS, 2012) yield limited statistical power for studies in which neglect is the outcome variable of interest. One solution has been to collapse heterogeneous forms of maltreatment (e.g., physical abuse, sexual abuse, neglect) into the single category of "child maltreatment," but this is highly problematic given likely disparate antecedents and consequences (Manly et al., 2001). A more effective strategy is to conduct prospective research to examine the occurrence of neglect in high risk samples (Lounds, Borkowski, & Whitman, 2006). This approach has the added potential of revealing causal mechanisms among families in most need of support.

Some research suggests that children of adolescent mothers are at especially high risk for experiencing neglect compared to children of older mothers (Brown, Cohen, Johnson, & Salzinger, 1998; Lounds et al., 2006), and teen parents with infants have become a popular target for child abuse and neglect intervention programs. Rigorous evaluation of child maltreatment prevention programs has generated some of the most sophisticated evidence to date related to the prevention of child maltreatment (DuMont et al., 2010; Olds et al., 1997), yet little evidence on how to avert neglectful parenting. To our knowledge, only three studies examine the prevention of neglect in infancy (Connell-Carrick & Scannapieco, 2006; Easterbrooks et al., 2012; Green et al., 2013). The aim of the present study is to expand knowledge on the determinants of infant neglect in a high-incidence sample, adolescent mothers. The study is guided by an ecological model, which postulates that dynamic, interactive relationships among attributes of children, parents, families, and environmental contexts shape the likelihood of infant neglect (Belsky, 1993; Bronfenbrenner & Morris, 2006).

Correlates of neglect in early childhood

Ecological studies of child maltreatment often group risk and protective factors into *individual characteristics* (e.g., child, parent), *family characteristics* (e.g., parent-child interactions, intimate relationships), and *characteristics of the broader environment* (e.g., neighborhood poverty, social support). This categorization does not imply that each domain has an equal causal role, nor an order of importance, but rather assumes that there are multiple spheres of influence on parental functioning (Belsky, 1993).

Child characteristics. A small group of studies suggest that early problems in children's health and development increase the likelihood of child neglect (Sedlak et al., 2010; Sidebotham & Heron, 2006; Strathearn, Gray, O'Callaghan, & Wood, 2001). For instance, higher rates of neglect have been found among infants with special needs, postnatal complications, and health problems, such as low weight at birth, exposure to tobacco, or poor condition at birth as indicated by a low Apgar score (Fullar, 2008; Strathearn et al., 2001; Vanderhoeven & Tolosa, 2010). These complications also may lead to challenges following birth. For example, low birth weight infants may be more difficult to care for, requiring special caregiving behaviors and accommodations, which may exacerbate parenting stress and lead to neglect (Washington, 2009). Infant regulatory difficulties also may be problematic when combined with other stressors that prevent mothers from engaging in attuned, responsive caregiving. Landi et al. (2011), for example, found that substance (primarily tobacco) using mothers were less responsive to infant cues than were mothers who did not use substances. It may be that infant regulatory challenges are only associated with neglect when paired with maternal deficits (e.g., responsiveness to infant cues).

Child age is a robust predictor of neglect as well; the younger the child the higher is his or her risk of being neglected (USDHHS, 2012). Moreover, recent increases in the incidence of neglect have been disproportionately high for the youngest children (ages 0–2) (Sedlak et al., 2010). It is less clear whether or not sex of child is related to infant neglect. In 2010, child victimization was 49% for boys and 51% for girls across all maltreatment types. Boys appear to be at a slight disadvantage