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## Maternal psychological distress after preterm birth: Disruptive or adaptive?



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#### ABSTRACT

*Background:* Maternal postpartum distress is often construed as a marker of vulnerability to poor parenting. Less is known, however, about the impact of postpartum distress on parenting an infant born prematurely. The present study investigated whether high distress levels, which are particularly prevalent in mothers of preterm born infants, necessarily affect a mother's quality of parenting.

Method: Latent Class Analysis was used to group mothers (N = 197) of term, moderately, and very preterm born infants, based on their levels of distress (depression, anxiety, and PTSD symptoms) at one month postpartum, and their quality of parenting at one and six months postpartum. Parenting quality was assessed on the basis of maternal interactive behaviors (sensitivity, intrusiveness, and withdrawal) using observations, and maternal attachment representations (balanced, disengaged, or distorted) using interviews.

Results: A 5-Class model yielded the best fit to the data. The first Class (47%) of mothers was characterized by low distress levels and high-quality parenting, the second Class (20%) by low distress levels and low-quality parenting, the third Class (22%) by high distress levels and medium-quality parenting, the fourth Class (9%) by high distress levels and high-quality parenting, and finally the fifth Class (2%) by extremely high levels of distress and low-quality parenting.

Conclusions: While heightened distress levels seem inherent to preterm birth, there appears to be substantial heterogeneity in mothers' emotional responsivity. This study indicates that relatively high levels of distress after preterm birth do not necessarily place these mothers at increased risk with regard to poor parenting. Conversely, low distress levels do not necessarily indicate good-quality parenting. The results of the present study prompt a reconsideration of the association between postpartum distress and parenting quality, and challenge the notion that high levels of maternal distress always result in low-quality parenting practices.

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#### 1. Introduction

Within the field of developmental psychology, the effects of maternal postpartum psychological distress on child development have received much attention. Moreover, the prevention, diagnosis, and treatment of distress in mothers is given much emphasis in pre-, peri- and postnatal healthcare. Prior studies reported that postpartum distress is quite common among new mothers, with prevalence estimates around 13–19% for postpartum depression (O'Hara & McCabe, 2013), around 8–10% for postpartum anxiety (Woolhouse, Brown, Krastev, Perlen, & Gunn, 2009), and between 3.1% (community samples) and 15.7% (risk samples) for post-traumatic stress responses (PTSD; Grekin & O'Hara, 2014), with considerable comorbidity between the different types of distress (Austin et al., 2010). These prevalence rates have raised concern among healthcare providers, because negative postpartum emotions are known to affect not only maternal wellbeing, but also infant developmental outcomes. More specifically, maternal distress after childbirth can have a long-term adverse impact on the infants' quality of attachment to their mothers, as well as on their behavioral, cognitive, and socio-emotional functioning (Glasheen, Richardson, & Fabio, 2010; Goodman et al., 2011).

#### 1.1. Distress and parenting

The association between maternal postpartum distress and compromised infant development has been largely attributed to disturbances in the emotional and behavioral exchanges between the mother and her infant (Giallo, Cooklin, Wade, D'Esposito, & Nicholson, 2014). Maternal distress can interfere with the mother's ability to form positive expectations and representations of her infant and to interact sensitively with her infant. For example, depressed or anxious mothers have been found to develop non-optimal (i.e., non-balanced) attachment representations and, in particular, distorted representations of the infant; that is, representations characterized by insensitivity or unrealistic expectations of the infant and by incoherent, confused, preoccupied, contradictory, or even bizarre descriptions of the infant (see Vreeswijk, Maas, & Van Bakel, 2012, for a review). Furthermore, maternal distress is a key factor affecting mothers' parenting practices. Depressed or anxious mothers have been observed to engage not only in withdrawn, passive, or disengaged interactional behaviors, but also in intrusive, controlling, or hostile parent-infant interactions (Goodman & Brand, 2009).

#### 1.2. Distress and parenting after preterm childbirth

Whereas postpartum psychological distress is quite common in mothers of infants born at term gestation, mothers of infants born preterm experience even more often high levels of distress (Bener, 2013). Postpartum depression rates of up to 40% (Vigod, Villegas, Dennis, & Ross, 2010), and anxiety and PTSD prevalence rates of up to 23% (Feeley et al., 2011; Lefkowitz, Baxt, & Evans, 2010) have been reported among mothers of preterm infants. These substantial percentages are not surprising, as mothers are confronted with various serious stressors after preterm birth. The infant's physical condition, early separation from the infant, uncertainty about the infant's outcome, and anticipated loss of the infant, are only some of the stressors that may result in feelings of stress, depression, anxiety, and even to symptoms of traumatization in mothers (Goldberg & DiVitto, 2002). Given the complications and challenges that accompany parenting an infant born preterm, one might conclude that heightened levels of distress are inherent to the situation these mothers find themselves in. It remains debatable, however, as to whether or not heightened maternal stress levels after preterm birth are necessarily associated with less adequate parenting.

This specific question has previously been addressed in a small number of studies yielding inconclusive findings. On one hand, some studies indicated that mothers of preterm infants who experience high levels of distress are at serious risk with regard to adverse parenting. These studies revealed higher incidences of non-optimal and unbalanced attachment representations and a lower quality of maternal interactive behaviors among mothers with high distress levels after preterm birth (Forcada-Guex, Borghini, Pierrehumbert, Ansermet, & Muller-Nix, 2011; Muller-Nix et al., 2004). Other studies, however, suggested that in cases of preterm birth some degree of distress in mothers is inevitable, and perhaps even beneficial for parenting an infant born preterm. Borghini et al. (2006), for instance, demonstrated that particularly mothers of high-risk preterm infants who were emotionally distressed, anxious, and worried about their child's health and future development in the postpartum period developed a strong bond with their infant. The authors linked maternal emotional arousal after preterm birth to higher maternal involvement (e.g., providing comfort care). In line with this, Levy-Shiff, Sharir, and Mogilner, (1989) and Holditch-Davis, Schwartz, Black, and Scher (2007) showed that mothers of preterms who were highly distressed and concerned due to the hospital environment and their infant's health condition showed more caregiving behaviors during the infant's hospitalization and after discharge of the infant. Mothers who experience emotional arousal because of their infant's fragile condition, may adopt a compensatory parenting style in which they attune and adjust their behavior to the needs and capacities of their immature infant. Inhibition and suppression of maternal emotions, in contrast, could lead to detachment and difficulties in establishing a close mother-infant relationship.

#### 1.3. The present study

In this explorative study, we investigated whether heightened levels of maternal distress after preterm birth place mother-infant dyads at risk for poor parenting. We hypothesized that distinct subgroups of mothers could be identified on the basis of maternal levels of distress and parenting quality. Latent Class analysis (LCA) was used to examine the relation between maternal distress (PTSD, depression, and anxiety symptoms), at one month postpartum, and maternal quality of parenting (interactive behaviors and attachment representations) at one and six months postpartum, among mothers of term, moderately preterm, and very preterm

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