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The impact of parents' mental health on parent–baby interaction: A prospective study☆

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ABSTRACT

The aims of the current study were to examine the effect of fathers' and mothers' pre and postnatal mental health on mother–infant and father–infant interactions. Mental health was broadly defined to include anxiety, depression and PTSD. A community sample of 44 mothers and 40 fathers from 45 families completed questionnaire measures of mental health in late pregnancy and three months postpartum. Mother–infant and father–infant interactions were observed and videoed three months postpartum and analysed using the CARE-index. Results showed that prenatal mental health, in particular anxiety, was associated with parent–infant interactions to a greater extent than postnatal mental health. Fathers' prenatal symptoms were associated with higher paternal unresponsiveness and infant passivity whilst fathers' postnatal symptoms were associated with higher levels of infant difficulty in the father–baby interaction. The results also indicated that mothers and fathers interaction with their babies were similar, both on average and within the couples, with 34% being inept or at risk. These findings highlight the need for early detection and prevention of both mental health and parent–infant relationship problems in fathers as well as mothers. However, further prospective and longitudinal studies are needed to understand the influences of parental mental health on the parent–infant interactions further. Also it should be noted that the mental health scores were low in this sample, which may reflect the sample characteristics. Future studies therefore would benefit from focusing on more vulnerable groups of parents.

1. Introduction

The quality of the early dyadic interaction between the primary caregiver and baby is important for the child's socio-emotional, cognitive, language and brain development (Hay & Pawlby, 2003; Murray, FioriCowley, Hooper, & Cooper, 1996; Trevarthen & Aitken, 2001), for the formation of secure attachment (Crittenden, 1995; Steadman et al., 2007; Tomlinson, Cooper, & Murray, 2005) and the child's future mental health (Skovgaard et al., 2008). A failure to establish a satisfactory early parent–baby relationship may also put the baby at risk of child abuse and neglect (Scannapieco & Connell-Carrick, 2005). It is therefore important to understand early risk factors for an unsatisfactory parent–infant relationship. One such risk factor is poor parental mental health. The current study aims to extend previous research by using direct observations to

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explore both mothers and fathers interactions with their baby in relation to their mental health. Mental health was broadly defined to include anxiety, depression and PTSD measures.

1.1. Parent–infant interactions

Although the family systems perspective acknowledges the importance of fathers' impact on their baby and the family as a whole (e.g., Bell et al., 2007; Cowan & Cowan, 2002; Erel & Burman, 1995; Fivaz-Depeursinge, Favez, Lavanchy, De Noni, & Frascarolo, 2005), there is still far less research on fathers than mothers, with inconclusive findings. There are indications that fathers may experience more difficulties with their emotional relationship and interactions with their baby than mothers (Edhborg, Matthiesen, Lundh, & Widstrom, 2005). Whilst some studies show an interdependence of negative intrusive interactive patterns across the mother–infant and father–infant dyads (Barnett, Deng, Mills-Koonce, Willoughby, & Cox, 2008) as well as maternal and paternal positive, supportive parenting patterns resembling each other (Martin, Ryan, & Brooks-Gunn, 2007), other researchers have not found any significant associations between observed mother–infant and father–infant interactions (Goodman, 2008).

1.2. Parental mental health and parent–infant interactions

One of the major parental risk factors for a negative parent–baby relationship, with increased risks for child maltreatment, is parental mental illness (Brockington, 2004; Hindley, Ramchandani, & Jones, 2006; Pawlby, Hay, Sharp, Waters, & Pariante, 2011; Scannapieco & Connell-Carrick, 2005). Specifically maternal depression has been linked to poor quality of mother–baby interaction (for a review, see Field, 2010). For example, Beck (1995) found a moderate to large effect of postpartum depression on maternal–infant interaction. Similarly Kemppinen, Kumpulainen, Moilanen, and Ebeling (2006) found that 75% of mothers who were identified as being "at risk" in lack of sensitivity towards their infant 6–8 weeks postpartum, also reported depressive symptoms. Evidence shows that depressed mothers are less sensitive towards their babies (Murray et al., 1996; Steadman et al., 2007), being more intrusive or withdrawn (Black et al., 2007; Field, Hernandez-Reif, & Diego, 2006; Herrera, Reissland, & Shephard, 2004) and less accurate in interpreting their baby's emotions (Broth, Goodman, Hall, & Raynor, 2004). Similarly paternal depression has been associated with a less optimal father–infant relationship (Field, Hossain, & Malphurs, 1999; Field, 2010; for a review, see Wilson & Durbin, 2010) with examples of less involvement with their child (Roggman, Boyce, Cook, & Cook, 2002). Also, maternal depression has been shown to indirectly influence the father–infant interaction negatively (Bradley & Slade, 2011; Goodman, 2008). Comparable effects of maternal and paternal depression on parenting behaviours have been found (e.g., Cummings, Keller, & Davies, 2005; Leinonen, Solantaus, & Punamaki, 2003). However, few observational studies have looked at father–infant interactions in relation to paternal and maternal pre and postnatal mental health, as previous studies have mainly relied on maternal postpartum self-report or interview measures and concern older children.

Interestingly, different types of parental psychopathology and/or adversity may give rise to different dyadic interactional patterns. For example, Cassidy, Zoccolillo, and Hughes (1996) found that severity of depression amongst adolescent mothers correlated with maternal control and infant difficulty, whilst mothers with severe antisocial histories showed unresponsiveness and their infants had higher levels of passivity. There is also evidence of negative effects of anxiety on the parent–baby relationship and child outcomes (Feldman et al., 2009; Glasheen, Richardson, & Fabio, 2010, for a review). Finally, studies also suggest that PTSD following childbirth may be linked to problems in the parent–baby relationship (Ballard, Stanley, & Brockington, 1995; Nicholls & Ayers, 2007; Parfitt & Ayers, 2009). However, we are aware of only three observational studies of mother–baby interaction that include PTSD measures, two in the context of premature birth and very low birth weight infants (Feeley et al., 2011; Forcada-Guex, Borghini, Pierrehumbert, Ansermet, & Muller-Nix, 2011) and the third focusing on mothers with a history of childhood maltreatment (Muzik et al., 2013).

The timing of the onset and duration of parental mental health problems may also have differential effects on the parent–baby interaction. Flykt, Kanninen, Sinkkonen, and Punamaki (2010) found, for example, that prenatal depressive symptoms had a stronger impact on unresponsiveness in the mother–baby interaction than postnatal symptoms. The infant also plays an active part in the dyadic interaction with the parent. Crittenden (1985, 1992) drew attention to the fact that although a parent may initiate poor interactive patterns or maltreatment, the baby behaves and uses coping strategies in ways that maintains those negative patterns. Therefore, it is crucial that the parent–infant interaction is as much about the behaviour of the infant as that of the parent.

1.3. The present study

Research to date has focused on the effects of maternal postnatal depression on mother–baby interactions. The present study addresses several gaps in the existing literature by also including prenatal measures of mental health, postnatal PTSD measures and fathers' mental health measures in the context of both mother–infant and father–infant interactions. A preliminary aim of the current study was to explore mean-level differences between mother–infant and father–infant interactions, as well as to assess the degree of similarity of mother and fathers within families. The main aim was to examine contributions of both mothers' and fathers' pre and postnatal mental health to mother–infant and father–infant interaction.