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Exploring parental mentalization in postnatal phase with a self-report questionnaire (PRFQ): Factor structure, gender differences and association with sociodemographic factors. The Finn Brain Birth Cohort Study

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ABSTRACT

The objective was to explore the preliminary functioning of a self-report questionnaire designed to assess parental reflective functioning (PRFQ, Luyten et al., 2009, unpublished manual) during early postnatal phase and with a large population-based sample. Parental reflective functioning (PRF) refers to parental capacity to focus on experience and feelings, within self, in the child and underlying observed reactions. Individual differences in PRF reportedly affect child attachment and socio-emotional development. Cost-effective tools to assess key areas of early parenting are needed for both research and clinical purposes. The factor structure of a 36-item version suitable for early postnatal phase was explored using population-based data from the Finn Brain Birth Cohort Study (425 mothers and 237 fathers). Exploratory and confirmatory factor analysis resulted in a 14-item version comprising four factors capturing relevant aspects of early PRF. The factor structure was further tested with separate participants from the cohort (1030 mothers and 422 fathers). Mothers tended to score higher than fathers in PRF. Among mothers, parity, age, and financial situation were associated with postnatal mentalization. Level of education was associated with postnatal mentalization in both genders. The 14-item PRFQ-Fi has potential to serve as a new screening tool for very early parenting.

1. Introduction

There is increasing evidence about the importance of peripartum phase from mental health promotion and illness prevention points of view (Räikkönen et al., 2012; Scott, 2012). The concept of parental mentalization, i.e. reflective functioning (PRF), is considered especially promising in giving explicit focus and route for clinical work with families, both pre-and postnatally (Schechter et al., 2006; Slade, 2005; Suchman et al., 2011). Positive changes in PRF level are expected to increase curiosity towards the baby's mind and development, positive attitude towards parenting and to diminish risk for misunderstandings in communication between family members (Camoirano, 2017; Kalland et al., 2015; Suchman et al., 2017).

In order to be able to more thoroughly explore its potential role in parent-child interaction and for child development, new assessment tools have to be developed that are feasible to use with large samples. For this purpose, a pool of 36 items of a preliminary self-report questionnaire (Parental Reflective Functioning Questionnaire, PRFQ) (Luyten et al., 2009) was tested in postnatal phase within a birth cohort drawn from a general population.

1.1. Mentalization and reflective functioning

1.1.1. Theoretical background

The concept of mentalization is theoretically based on object relations and attachment theory. It refers to a person's capacity to give emphasis and consider oneself and other people in terms of mental states; i.e. in terms of feelings, beliefs, intentions and desires, and effort to think of experience behind overt behavior. “Reflective functioning” (RF) is an operationalized term for mentalization, referring to measured

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degree and aspects of mentalization (Fonagy et al., 1998, 2002, 2012).

Parental mentalization and reflective functioning' (PRF) (Slade, 2005; Slade et al., 2005a), in specific, refers to a parent's effort to make sense of her/ his child as a separate individual person with own thoughts, feelings and mind. Sensitivity, on the other hand, refers to acknowledging the child's cues, interpreting and responding to them timely and accurately, often enough (Ainsworth et al., 1978). PRF makes it possible for the parent to think of different alternative mental states underlying the child's reactions and behavior, considered a prerequisite for parental sensitivity in parent-child interaction and child secure attachment (Fonagy and Target, 1997, 2006; Fonagy et al., 2012; Sharp and Fonagy, 2008). Parental mentalization has key potential to break the chain of "inherited" models of parenting (Ensink et al., 2016; Fonagy et al., 1991; Slade et al., 2005a; Suchman et al., 2012b), and is hence considered central to models of therapeutic action in a number of parent-infant interventions.

"Maternal mind-mindedness" (MMM) (Bernier and Dozier, 2003; Meins, 1999; Meins et al., 2011), parental insightfulness (Koren-Karie et al., 2002) and parental mental representations (Benoit et al., 1997) are other concepts introduced in connection with attachment transmission mechanism. In relation to mentalization, they are distinct but related and compatible parenting concepts. Parental mentalization is the mechanism most frequently evoked in explaining whether attachment pattern becomes transmitted from one generation to the next or not (Sharp and Fonagy, 2008).

1.1.2. Definition of parental reflective functioning

A mentalizing stance enables the parent to be curious about the child as a separate person from very early on, with developing personal features, temperament and needs. The smaller the child, the more challenging it is for the parent. It is considered a distinct and especially demanding process during early postnatal phase, and especially challenging during pregnancy: the parent has to imagine and fantasize about the child, parenting and future situations without having met the real baby yet.

A parent with good PRF gives value to thinking of the child's experience despite acknowledging the impossibility to know it for certain. She/he is also able to see how mental states affect each other within and between people, how they can be difficult to catch, can be disguised and change over time (Slade, 2005, 2008; Slade et al., 2011). It is expected that a parent with "good enough" PRF is better able to reflect on feelings before acting on or responding to them in conflictual situations; i.e. has better capacity to regulate emotions in interaction. PRF is hence considered important for healthy communication between family members (Kalland et al., 2015; Slade, 2005).

1.1.3. Assessment

Many dimensions are included in the concept of parental mentalization: the ability to understand the nature of mental states, developmental and intergenerational aspects of mental states, mental states underlying behavior, mental states affecting each other between individuals and within one mind, implicit and explicit mentalization (Slade et al., 2010b). It is therefore understandable that the development of a self-report measure is challenging (Fonagy et al., 2016; Luyten et al., 2012). Thus far, the vast majority of studies on parental RF have been based on interview methods. The narrative analyses from semi-structured interviews are considered to offer the best opportunity to capture parental level of RF in depth, and several interview methods have been used for this purpose (Parent Development Interview, PDI revised, by Slade et al. (2010a); The Pregnancy Interview revised, PI, by Slade et al. (2011); Adult Attachment Interview, AAI, by George et al. (1985), and Working Model of Child Interview, WMCI, by Zeanah et al. (1996)). The interviews are, however, time-consuming and need extensive training to gain sufficient reliability in scoring, which makes them impractical to be used with large samples. Self-report measures potentially overcome the restrictions connected with interview methods including the small sample sizes, and primary reliance on verbal capacity.

Self-report questionnaire to assess adult general RF capacity has been developed previously by Fonagy et al. (2016). In studies exploring its functioning adult RF level has been found to be associated in theoretically expected ways with adult empathy, mindfulness, perspective-taking and indices of maladaptive personality functioning (Fonagy et al., 2016).

Attempts to develop a self-report questionnaire for assessing *parental RF* in specific have also been made during the last years. The Parental Reflective Functioning Questionnaire (PRFQ) was designed to assess parental reflective functioning in parents up to the child's age of five (Luyten et al., 2009, unpublished manuscript). In their validation study by Luyten et al. (2017) the initial factor analysis was carried out within a sample of 299 mothers who had children aged between 2 months and 3 years. Mean age of the children was 19 months, and only few were small infants. Using a different scoring key than in the current study (see Section 4), an 18-item PRFQ with three factors was gained.

A pregnancy specific version of the PRFQ has also been recently developed and tested in international collaboration (Pajulo et al., 2015) (see discussion for rationale for a separate prenatal version).

1.1.4. Empirical findings

Recently Camoirano (2017) reviewed 47 empirical studies, which had used AAI, PDI, PI or WMCI interviews as a basis for exploring parental mentalization with the Reflective Functioining Scale (RFS) (Fonagy et al., 1998). The studies reviewed give support to the notion that higher parental mentalization is connected with better quality of parenting, child secure attachment and higher child's own mentalization. They also support the notion that weaker parental mentalization is connected with child anxiety disorders, weaker child emotion regulation capacity and externalizing behavior problems. In the first studies that used the 18-item PRFQ version by Luyten et al. (2017) promising results were gained: parental RF was found to be a mediating factor between maternal depression and child's own mentalization level, and connected with parent-child relationship quality and mother's ability to tolerate infant distress.

Although early childhood relationship experiences are considered essential arena for mentalization development, preliminary findings show that the capacity can be improved by directly targeting mentalization, even among high risk parents (Pajulo et al., 2012; Schechter et al., 2006; Slade et al., 2005b; Suchman et al., 2012a, 2017).

1.1.5. The current study

The aim was to explore 1) the factor structure of PRFQ questionnaire in a large sample of parents at the same postnatal phase (children 6 months of age), 2) differences between genders in the level of postnatal mentalization, and 3) associations between parental postnatal mentalization and sociodemographic background factors. The final aim was to develop a questionnaire that would function sufficiently well with both mothers and fathers, would enable assessment of parental reflective functioning already in early postpartum phase and exploration of its association with other parenting and child-related factors and outcomes. This was the first time that the psychometric properties of the PRFQ measure were assessed within a large population based sample and using the originally designed scoring key (Luyten et al., 2009, unpublished manual).

2. Methods

2.1. Sample and procedure

The study populations for the current study were drawn from the FinnBrain Birth Cohort Pilot Study and the Finn Brain Birth Cohort Study (www.finnbrain.fi) (Karlsson et al., 2017, in press). The recruitment for the Pilot Study and the main Cohort were performed between