

Mother–Fetus Bonding

Subjects: Psychology

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Establishing an affective tie with a child during perinatality is considered one of the most important maternal tasks, and has a predictive role on children's socio-emotional, behavioral, and cognitive development in early childhood and on the parents' mental health during perinatality. The mother–fetus tie has often been labeled as “maternal–fetal attachment”, the emotional bond that the pregnant mother establishes with the unborn child. Even though the construct of the maternal–fetal relationship and related tools in this area of research usually refer to “attachment”, various scholars have considered the terms “bond” or “relationship” more appropriate than “attachment”.

Keywords: maternal–fetal attachment ; maternal postnatal attachment ; perinatality ; parent-to-infant bonding

1. Introduction

During the perinatal period, the establishment of an affective tie with the fetus and subsequently with the newborn baby is one of the most important maternal tasks and has a predictive role on children's socio-emotional, behavioral, and cognitive development in early childhood and on the parents' mental health during perinatality ^{[1][2][3][4][5][6][7][8]}.

Initially, the theoretical literature which stressed that the relationship between mother and child begins during pregnancy, was mainly of psychodynamic orientation ^{[9][10]}. Maternal care behaviors are considered to be grounded in the sensitivity and empathic capacity of the mother who immediately, after the birth, is able to identify and meet the needs of the newborn baby, as suggested by Winnicott ^[11]. The expecting mother develops an intensive awareness about the physical and psychological needs of her infant throughout the pregnancy, when women frequently enter into an intensely heightened phase of emotional preparedness for parenting ^[12]. The maternal–fetal tie during pregnancy guides the mother's thoughts, feelings, and behavior toward her child after the baby is born ^{[13][14]}. Although the relationship between the mother and child is a process that begins at least during pregnancy, to date research has mainly focused on postpartum mother–infant interactions ^{[15][16]}. Recent reviews that have explored the associations between pre- and postnatal bonding have highlighted that the complex pathways likely to exist in these associations are still unclear ^{[2][15][17]}. Considering other factors, such as parental mentalization, could provide a deeper understanding of the variables that influence the establishment of the maternal affective tie with the fetus and subsequently with the newborn ^{[17][18][19]}.

2. Research on Mother–Fetus Bonding

The mother–fetus tie has often been labeled as “maternal–fetal attachment”, the emotional bond that the pregnant mother establishes with the unborn child. Even though the construct of the maternal–fetal relationship and related tools in this area of research usually refer to “attachment”, various scholars have considered the terms “bond” or “relationship” more appropriate than “attachment”, the latter being a misleading term concerning care-seeking rather than caregiving ^{[3][20]}. Walsh ^[20] defines prenatal attachment as a multi-faceted construct guided by the caregiving system, the complementary parental side of the attachment system, the main function of which is to provide protection, comfort, and care for a child ^[21]. Mother–fetus bonding (MFB) is referred here when addressing the general issues of maternal prenatal attachment and its specific measures in empirical research.

MFB is grounded on caregiving-based concepts, such as the concept advanced by Condon ^[22]. Suggesting a model which links the maternal subjective experience with her behavior, for Condon, the maternal bond to the fetus and to the child is driven by the mother's disposition to know, interact with, to avoid separation or loss, to protect and meet the needs of her child. Such dispositions may (or may not) be translated into overt behaviors such as information seeking, proximity, protection, pleasing, and gratifying. To measure the construct, Condon developed instruments for both the prenatal and postnatal periods ^{[22][23]}. Consistent with this perspective, the items of the Maternal Antenatal Attachment Scale (MAAS) focus on conscious thoughts, feelings, behaviors, and attitudes towards the fetus ^{[3][24]}. Specifically, the tool assesses the quality of maternal affective experiences towards the unborn child (such as feelings of closeness and tenderness versus feelings of detachment and distance or irritation) and the intensity of preoccupation with the fetus (the strength of feelings

toward the unborn child and the amount of time thinking or dreaming about and talking to the fetus). In regard to the postpartum period, the Maternal Postnatal Attachment Scale (MPAS) questionnaire was also designed with the aim of exclusively addressing the parental side of the relationship with the child and assessing the mother's emotional response to her infant along a number of dimensions focused predominantly on affective responses, rather than on beliefs or attitudes [22].

There is a fairly sizable body of literature examining MFB, but the prevalence of research with cross-sectional designs limits the findings on the predictive aspects of MFB, and there are even fewer studies on its consequences [15][25]. Specifically, in studies employing Condon's MAAS, the data show that the subscale quality was consistently related to maternal mental health (associations with anxiety and depressive symptoms that were explored further), whereas the intensity subscale was not [15]. At a theoretical level, these findings support the need to consider the MFB as a complex and multidimensional construct, and at an empirical level, the importance of taking into account subscale scores and not interpreting global MFB scores in isolation when conducting research [24][26][27].

Recent reviews have explored the associations between pre- and postnatal bonding [2][15][17]. Overall, prospective studies show that MFB is a precursor of postnatal bonding in the early postpartum period. Studies assessing MFB in the prepartum period with MAAS show a positive correlation with MPAS in the postpartum period [28][29][30][31][32][33][34]. Despite these findings, when it comes to the support for patterns of continuity across the antenatal and postnatal periods, research data in some studies indicate only low or moderate associations between pre- and postpartum periods. Considering that the assessed construct is multidimensional and thus can be influenced by other perinatal variables, there are still critical gaps in knowledge about the associations between pre- and postnatal bonding, and studies that take into account intervening variables are necessary, such as the parental mentalization capacities [15][17][30]. From a psychodynamic perspective, empirical studies show that maternal caregiving behaviors are closely related to the maternal mentalization (operationalized as reflective functioning), namely the caregiver's capacity to reflect upon her own internal mental experiences as well as those of the child [35]. It has been postulated that parental reflective functioning (PRF) allows mothers to create both a physical and psychological experience of comfort and safety for her child [36][37][38]. As Alvarez-Monjarás et al. [19] recently showed, it is the development of a mother's capacity for reflecting upon the child's mental states that allows the parent to display more appropriate and sensitive responses to the child's behavioral cues. Therefore, higher maternal PRF is related to more positive maternal caregiving behaviors [18][19][38]. However, the link between caregiving experiences and maternal PRF has not been thoroughly studied. The Parental Reflective Functioning Questionnaire (PRFQ; Ref. [36]) is a brief multidimensional self-reporting instrument designed to assess PRF capacities. Among the findings of studies that have assessed PRF using the PRFQ, the parent's capacity to mentalize is a strong predictor of the quality of the parent-child relationship, is related to parents' ability to provide sensitive care, results in a sense of confidence about parenting, and leads to a parent's perception of their own ability to cope with parenting [36][39][40].

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