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## Father/baby Bonding: Impact of Vulnerability to Stress

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### Abstract

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The transition to parenthood is considered normal; however, it includes the need for parental adjustment. Sometimes this transition can be disturbing and induce high levels of stress. Our research question was How is bonding between the father and baby influenced by vulnerability to stress? We aimed To identify the establishment of bonding between father and baby and to analyze how their emotional involvement can be influenced by vulnerability to stress. Research Methods: This is a quantitative, descriptive-correlational and explanatory study, with a non-probabilistic convenience sample (N= 349 fathers), with a mean age of 31.84 years (SD= 6.067). Data is collected by a questionnaire applied up to 48 hours after birth, including socio-demographic, parent involvement and obstetric characterization, the Bonding Scale and the Vulnerability to Stress Scale – 23 QVS. Younger participants, who became fathers for the first time, were involved in the pregnancy and spoke with the baby during the gestational period demonstrated higher levels of positive bonding. It is not clear that those who monitored labor and picked up the child after birth showed high levels of bonding. Functional inhibition and dependency is the only factor which predicts vulnerability to stress. Bonding is a complex process which may be influenced by context and degree of involvement during pregnancy and childbirth. Vulnerability to paternal stress is multi-determined and may be accentuated in this period of transition to parenthood. Encouragement by health professionals in the father's emotional involvement with the baby and in early detection of vulnerability to stress is pertinent.

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### 1. Introduction

The birth of a child implies changes and has an impact on personal and family life. Just as for the mother, the father is influenced by pregnancy and the birth of the child and his involvement in the whole process seems to have important implications in the early relations of the father-mother-baby



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triad (Figueiredo, B., Costa, R., Pacheco, A., & Pais, A., 2007; Gomes & Leal, 2007; Piccinini, C., A., Silva, M. R., Gonçalves, T. R., & Lopes, R. S., 2004; Samorinha; Figueirinha & Cruz, 2009). Nowadays, there is a greater participation of parents in planning pregnancy, going together to prenatal consultations, attending parenting preparation classes, participation in childbirth and newborn baby care (Leal, 2005; Sutter; Bucher-Maluschke, 2008).

The father's involvement (bonding) during pregnancy and birth has been described as beneficial to the man, the woman and the baby. Despite the tendency for men to engage in activities related to pregnancy, they often experience ambivalent feelings during pregnancy. According to Ferreira, Laia & Néné, 2010, the father's level of involvement depends on factors such as personality, whether the pregnancy was planned, wanted and accepted, expectations of gender roles and previous experience with hospital services.

Just as the mother, the father needs the forty week period of gestation to adjust to his new identity. This path, described by Brazelton & Cramer (2007) as psychological tasks, begins with adapting to the news of the pregnancy, followed by recognition of the baby, the perception that it will separate from its mother, and acceptance of the baby as an individual, thereby promoting parental identity. For these authors, parents who manage to carry out these tasks and face the adjacent psychological problems, can better cope with their new roles.

However, there are considerable differences in how parents overcome these phases. According to a study by Piccinini et al. (2004), many parents are deeply involved with pregnancy, seek to participate in all matters and demonstrate great emotional availability for this experience. On the other hand, some parents are unable to engage with the child at any time during pregnancy, mentioning the following for this: financial difficulties, work overload, increased responsibilities to the family and the possible consequences in the marital relationship.

The male's path to parenting differs from the female's because only women can feel the child growing inside, go through labour, delivery and breastfeeding. This can lead to feelings of jealousy, anxiety, exclusion and loneliness in men. In fact, the period of pregnancy proves to be more stressful for parents than the child's actual birth and may be the cause for the need for psychological reorganisation inherent to this phase (Genesoni & Tallandini, 2009). For these reasons, some authors suggest that the formation of the bond between parent and child may be slower, consolidating gradually after birth (Piccinini et al., 2004).

Despite the lack of studies that address the father's involvement with the baby several authors consider that, as with the mother, bonding is an event driven by several factors, both for the father and the baby, with the type of engagement between father and baby being fundamental (Brandão, 2009). Hence, paternal behaviour will depend on the interaction of family and environmental variables, including the parents' individual characteristics (beliefs, skills or personal history), the baby's characteristics (gender, temperament, birth order), the characteristics of the microsystem (context and family dynamics), the characteristics of the ecosystem (the family's most immediate social context),

the characteristics of the macrosystem (the society's social, economic, cultural and legal conditions) and the temporal dimension in which the reciprocal interactions occur (Felizardo, C., Amaro, S., Evangelista, S., Matos, S., & Duarte, T., 2010; Oliveira, Pedrosa & Canavarro, 2005). Thus, in addition to the importance of the father's presence at the baby's birth, the immediate physical contact, such as touching, holding, dressing the baby, has a greater influence on the development of the father-child relationship (Pereira, 2009).

As a result of this complexity, the birth of a child requires reorganization and personal and family adaptation. The transition to parenthood is sometimes seen to induce high levels of stress (Moura-Ramos & Canavarro, 2007). Parental stress is understood as an adverse psychological reaction to the new demands experienced with negative feelings about the self and the child. (Baiao, 2009). The child's characteristics, parental figures and social and family contexts contribute to parental stress. This is experienced by each individual in a specific way, determining positive or negative family functioning (Oliveira, Pedrosa & Canavarro, 2005). Insecure bonds in children, authoritarianism, neglect, parental abuse, poor marital quality and depression (Gomez & Leal, 2009) are associated with dysfunctional parenting (Baiao, 2009).

To prevent vulnerability to stress in the transition to parenthood, the father's participation in different activities during the pregnancy cycle and puerperal period is recommended. In light of the above, we want to know how bonding between father and baby is influenced by vulnerability to stress.

## **2. Research Methods**

This is a quantitative, cross-sectional, descriptive and correlational study performed on a non-probabilistic convenience sample of 349 fathers aged between 19 and 55 years (mean=31.84 years, SD=6.067).

The data collection instrument was a questionnaire to characterize sociodemographic and obstetric data and the participants' involvement in pregnancy and childbirth. It also included the Bonding Scale (Figueiredo, B., Marques, A., Costa, R., Pacheco, A., & Pais, A., 2005) and the Vulnerability to Stress Scale – 23 QVS (Vaz Serra, 2000). The data were treated using SPSS 21.0 (Statistical Package for Social Sciences).

## **3. General characteristics of the sample**

Participants are aged between 19 and 55 with a mean age of 31.84 years. The vast majority (96.6%) are Caucasian, have attended up to the 9th year of schooling (37.4%) and secondary school (37.1%). The majority are married (66.9%) and their relationships have had a duration from 4 to 7 years, followed by the group with a relationship of over 8 years (35.0%).

#### **4. Findings**

Most participants (63.2 %) were about to become fathers for the first time. Of the remainder, 39.2% had one child, 51.5% had two children and 9.2% had three or more children. 76.8% had planned the pregnancy and 96.6% wanted it. 82.9% of participants reported complications during the pregnancy. For 46.5% labour lasted less than 6 hours on average resulting in 46.1% eutocic and 53.9% dystocia deliveries. 80.8% of respondents were present at prenatal consultations and participated in the first foetal ultrasound; 96.0% felt foetal movements and 83.4% spoke to the baby during pregnancy. A low turnout for parenting preparation classes (22.6%) was observed. 78.2% were present during labour and 61.3% during delivery. 73.1% report having been informed during the course of labour and 91.7% had their questions answered. 59.6% felt they actively participated in labour. Only 5.1% cut the umbilical cord at birth; however, 59.6% stated that they would have liked to have done it. As for newborn care, 86.9% held the baby and 17.8% dressed the child.

In the sample, 75.1% of participants did not show vulnerability to stress, while 24.9% did. The most vulnerable have secondary education (43.7%) are married or in civil unions (79.3%) and have been in a marital relationship between 4 and 7 years (37.9%). In the regression analysis between the factors, vulnerability to stress and bonding subscales, it appears that inhibition and functional dependence is the only vulnerability to stress factor which predicts total bonding, with a very low negative correlation ( $r=-0.130$  and  $p=0.015$ ).

#### **5. Discussion**

In this study, despite failing to establish causal relationships between vulnerability to stress and bonding, it appears that there are correlations that say that the lower the vulnerability to stress, the greater involvement emotional between father and baby. In the study of the relationships between vulnerability of to stress with the other variables, it is also recognized that parents who are involved in activities related to the pregnancy, labour and delivery have lower rates of vulnerability to stress.

In this context, it is worth noting that the kind of paternal involvement is based on multiple factors (characteristics of the parental figures, the child and family and social contexts), there is no variable with a predominant influence over the others (Brandão, 2009). However, Oliveira, Pedrosa & Canavarro (2005) point out that this type of stress is experienced in a specific way for each family before the birth of every baby.

75.1% of participants are observed to have scores below 43 in vulnerability to stress, meaning they are not vulnerable. In spite of presenting a smaller number of parents who are vulnerable to stress, it is considered that this should be highlighted, since greater parental stress levels have been associated with insecure bonding in children, authoritarianism, neglect, parental abuse, poor marital quality and depression (Gomez & Leal, 2009). The need to develop interventions by health professionals must be emphasized in order to help parents to acquire skills to deal with the stress inherent to the transition to parenthood.

With regard to positive bonding, there is a negative and significant correlation with the factors, deprivation of affection and rejection, from the vulnerability to stress scale. That is, the greater the deprivation of affection and rejection, the lower the positive bonding is and vice versa.

In the analysis of negative bonding, although no factor predicts it, what was observed was that there was a significant positive correlation for the factor, inhibition and functional dependence, from the vulnerability to stress scale. This means that the greater the inhibition and functional dependence, the higher the rates of negative bonding and vice versa.

No independent variable predicts not clear bonding; however, there was a significant positive correlation between the inhibition and functional dependence factor from the vulnerability to stress scale and not clear bonding. That is, the greater the inhibition and functional dependence, the higher the levels of not clear bonding and vice versa.

In the regression analyses with bonding in its entirety, it appears that there are negative and significant correlations between the factor, inhibition and functional dependence, the totality of the vulnerability to stress factors and total bonding. This means that, as inhibition and functional dependency and total vulnerability to stress increase, total bonding decreases and vice versa.

These results are partly in line with the study by Gomez & Leal (2009), which showed that parental stress correlates negatively with paternal involvement. Some studies show that the transition to parenthood is an event that is fraught with stress. However, this transition has only been studied based on individual accounts and unrepresentative samples (Brandão, 2009). Still, just as for women, this emotional process can influence men and generate different levels of stress, with implications for demonstrating affective ties and bonding between father and baby (Soares, 2008). Thus, the adjustment to parenthood can have a psychological impact on men, influencing bonding.

As regards the relationship between age and establishing emotional involvement between father and baby, it appears that younger fathers ( $\leq 31$  years) have greater emotional involvement. These results are consistent with those reported by Ferreira, Laia & Néné (2010), who found greater involvement by younger fathers. It is worth noting that the participants had very low levels of negative bonding, which corroborates the study by Figueiredo et al. (2005), showing no negative bonding in the father within 48 hours of birth.

Participants who have 9 years of schooling demonstrate more total involvement with the baby, unlike fathers who have higher education. These results are corroborated by Soares (2008), showing that higher levels of education are associated with more maladjusted and negative involvement. The authors consider the possibility of this fact to be associated with the ambivalence experienced between parental involvement and professional involvement.

It appears that there are significant statistical differences in positive bonding and not clear bonding, with higher values in men becoming fathers for the first time. It seems that the fact of being a father for the first time involves positive engagement with the baby. In fact, the transition to parenthood, especially for the first child, induces individual, marital, family and professional reorganization (Moura-Ramos & Canavarro, 2007).

In the search for a relationship between planned and wanted pregnancy and bonding, no statistically significant differences were found. However, parents who planned their pregnancy have a greater

emotional involvement with the baby. These data support the view held by Ferreira, Laia & Néné, (2010), who stress the importance of pregnancy planning for couples, so that it may occur in a healthy manner, influencing the involvement of the father during gestation. In the study on the relationship between the father's presence in first ultrasound with bonding, it turns out that those who were present for the examination are more emotionally involved with the baby, with a statistical significance between positive bonding and the presence of the father for this test. This was observed in the study by Samorinha, Figueiredo & Cruz (2009), where they observed a positive impact between prenatal bonding and feelings of closeness and connection among the triad, because viewing the ultrasound provided a more realistic representation of the foetus and they were able to become aware of its health. Fathers have been conquering a new space with their pregnant partners and accepting their participation in pregnancy related issues. Therefore, it can be stated that the findings corroborate the literature review above, which states that observing foetal growth by ultrasound, foetal cardiac auscultation, feeling foetal movements in the womb, talking to the baby are important moments in developing of prenatal bonding (Pereira, 2009).

Only 22.6% of participants went to parenting preparation classes. In these classes, they are given information on adjusting to parenthood, the role of the father, the operation of the delivery room and the health team. Lack of knowledge can cause anxiety as the delivery approaches. The results can be justified by lack of flexibility in their work schedule which does not allow them to attend classes (Felizardo et al., 2010). Statistical significance was not found in studying the relationship between this variable and bonding; however, greater positive bonding has been observed in fathers who participated in the classes.

Participants who accompanied the mother during labour and delivery have higher levels of positive bonding. Parents who were present during labour were also found to show more feelings not directly related to bonding, with statistical significance. This is in line with the Tomeleri, K. R., Pieri, F. M., Violin, M. R., Serafim, D., & Marcon, S. S. (2007), who state that during this time men are invaded by conflicting feelings, such as excitement, fear, exclusion, powerlessness and gratification. The interaction between the health team and the father is also important, because it facilitates the strengthening of bonding between the triad. When health professionals provide emotional support and security, they provide information and clarify the couple's doubts, can stimulate the formation of the bond and reduce the father's stress, inherent to this period (Pereira, 2009).

With regard to the importance attached by fathers to cutting the umbilical cord for emotional involvement, 47.8% report that it is important, while 52.2% report it is not relevant. In this sense, cutting the umbilical cord may represent the opportunity for fathers to be included in providing care at delivery, increasing their confidence and involvement with the child. However, despite finding greater involvement of fathers who stress the importance of cutting the umbilical cord, statistically significant differences were not observed.

## **6. Conclusions**

The father's emotional involvement with the baby appears to represent a significant influence on establishing and developing family relationships. Currently there is a greater willingness on the part of fathers with regards to emotional involvement, which is intensified with early contact and integration in caring for the child. However, bonding does not manifest itself immediately after birth, but is rather a gradual process which intensifies over time. It is recognized that parental involvement is determined by factors such as the characteristics of the father, the baby and the family, as well as environmental contexts. Moreover, vulnerability to stress is found to be multifactorial and may heighten during this period of transition to parenthood. We must emphasize the importance of prenatal consultations in promoting the transition to parenthood.

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