Harvesting the Potential of Perinatal Mental Health Knowledge:
New Data about Fathers

The Father’s Emotional Involvement with the Neonate:
The Impact of Childbirth Experience

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Emotional Involvement with Neonate (Klaus & Kennel, 1976) has been under research with the aim at improving perinatal care routines and reducing the incidence of parenting disorders (Knoester & Eggbeen, 2006).

Childbirth experience influences father’s emotional involvement with the neonate (Johnson, 2002; Waldenström, 1999).

Participation in childbirth offers an opportunity for both father and mother to share parenthood experience (Pestvenidze & Bohrer, 2007; Vehvilainen-Julkunen & Liukkonen, 1998).
Giving the father the opportunity to cut the umbilical cord of his child is a midwife’s routine procedure, aiming at promoting the father’s emotional involvement with the neonate.

However, little is known about this midwife’s practice and its influence in the father’s emotional involvement with the neonate.
1. To assess the father’s emotional involvement with the neonate

2. To explore the impact of the umbilical cord cutting experience on the father’s emotional involvement with the neonate
105 fathers randomly recruited at the Porto Medical Center (Centro Hospitalar do Porto – Unidade Maternidade Júlio Dinis) delivery room in Portugal between January and May 2008

The sample was selected by a random sampling process with the following exclusion criteria:

- Multiple pregnancy
- Pre-term pregnancy
- Instrumented deliveries or caesarean sections
- Neonates who were hospitalized in an intensive care unit after birth
### Sample

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>N</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>≤18</td>
<td>6</td>
<td>5.7</td>
</tr>
<tr>
<td>≥18</td>
<td>99</td>
<td>94.3</td>
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<table>
<thead>
<tr>
<th>Marital Status</th>
<th>N</th>
<th>%</th>
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<tbody>
<tr>
<td>Single</td>
<td>11</td>
<td>10.4</td>
</tr>
<tr>
<td>Married</td>
<td>69</td>
<td>65.7</td>
</tr>
<tr>
<td>Co-habitation</td>
<td>24</td>
<td>22.9</td>
</tr>
<tr>
<td>Divorced</td>
<td>1</td>
<td>1.0</td>
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<table>
<thead>
<tr>
<th>Education (years of school)</th>
<th>N</th>
<th>%</th>
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<tbody>
<tr>
<td>&lt;9 years</td>
<td>22</td>
<td>21.0</td>
</tr>
<tr>
<td>≥ 9 and ≤12 years</td>
<td>58</td>
<td>55.2</td>
</tr>
<tr>
<td>Graduate</td>
<td>21</td>
<td>20.0</td>
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<tr>
<td>Post-Graduate</td>
<td>4</td>
<td>3.8</td>
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<table>
<thead>
<tr>
<th>Occupational Status</th>
<th>N</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Employed</td>
<td>100</td>
<td>95.2</td>
</tr>
<tr>
<td>Unemployed</td>
<td>5</td>
<td>4.8</td>
</tr>
</tbody>
</table>
- Socio-demographic questionnaire

- **Bonding Scale** (Figueiredo et al., 2009)
  - Validated and extended Portuguese version of the “New mother-to-Infant Bonding Scale” (Taylor et al., 2005)
  - Self-report questionnaire composed by 12 items in a licker scale from 0 to 3, according to the emotion intensity towards the neonate (“very much”, “a lot”, “a little” or “not at all”)
  - Internal consistency (Cronbach alpha= 0.71) and of test-retest reliability (Spearman correlation= 0.49, p<0.01)
PROCEDURES

Before Childbirth
- Socio-Demographic Questionnaire
- Bonding Scale

First day after childbirth
- Bonding Scale

First month after childbirth
- Bonding Scale
After childbirth fathers (N=105) were divided depending on their umbilical cord cutting experience.

- **Group 1** (N=45): Fathers who were asked and agreed to cut the umbilical cord.
- **Group 2** (N=28): Fathers who were asked and did not agree to cut the umbilical cord.
- **Group 3** (N=32): Fathers who were not asked to cut the umbilical cord.
- No significant differences were found in the groups concerning Socio-demographic characteristics

- Significant differences were found regarding neonate characteristics

  As the neonate’s gender factor presented statistic significant results, this variable was controlled in the analysis
Aim 1 – To assess the father’s emotional involvement with the neonate

Emotional Involvement
Bonding Scores

Before Childbirth | First Day After Childbirth | First Month After Childbirth

Mean (Standard Deviation)

2.73 (0.17) | 2.77 (0.18) | 2.72 (0.28)
Aim 2 – To explore the impact of the umbilical cord cutting experience on the father’s emotional involvement with the neonate

![Graph showing emotional involvement bonding scores over time for different groups.](image-url)
The father’s emotional involvement with the neonate:
- increases from before childbirth to the first day after childbirth
- and decreases between the first day after childbirth and the first month after childbirth

However, in the group of fathers to whom was provided and who agreed to cut the umbilical cord it was observed an improvement of the emotional involvement with the neonate one month after childbirth


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Results point out that the umbilical cord cutting experience may benefit father’s emotional involvement with the neonate during his/her first month of life.

Results support the benefits of father’s empowerment and participation in childbirth.

Midwives have an intervening role as a facilitator of the father-neonate emotional involvement.

This study presents some limitations, concerning the social context in which it was carried out.

In the future, it would be interesting to developing it in different social context.
• Brandão, S. & Figueiredo, B. (2010). Father´s emotional involvement with the neonate: The impact of childbirth experience. *Journal of Advanced Nursing, under review*

• Figueiredo, B., Costa, R. (2009). Mother´s Stress, Mood and Emotional Involvement with the infant: 3 months before and 3 months after childbirth. *Archives of women´s mental health*, 12 (3), 143-153.


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