Barriers and facilitators to paternal involvement in the NICU

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“Look at me! Daddy took my picture!”

Acknowledgements

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Introduction

- Much attention paid to mother-infant relationships in the NICU but not father-infant relationships (Deeney et al., 2009).

- Now understand crucial role of father in cognitive, emotional and social development of infants. (Coleman et al., 2004; Goodman, 2005; Novack, 1990; Yogman et al., 1995).

Literature review

- The most stressful aspect of hospitalization, for mothers and fathers, is disruption to parental role & their relationship with the infant (Dudek-Shriber 2004, Joseph et al. 2007, Hughes & McCollum 1994).

- Fathers visit their infants less frequently, for shorter periods of time than mothers (Franck & Spencer, 2003; Latva et al., 2007; Wigert et al., 2010).

- Fathers of former-NICU infants prefer to do household chores rather than direct infant care and are more likely to perform chores compared to fathers of non-hospitalized infants, (Boukydis et al. 1987; Lee et al. 2009).
Need for current study

- It is unclear as to why, despite wishing to be involved in the infant’s care, fathers of NICU infants may be less involved than fathers of their non-hospitalized counterparts.

- Little known regarding barriers and facilitators to the involvement of fathers with their infants in the NICU.

Research question

What do fathers perceive to be the barriers or facilitators to their preferred involvement with their infant in the NICU?
Methodology

- Design: Qualitative descriptive
- Setting: Two level III NICU's in Montreal
- Sample: Purposive sampling
- Father inclusion criteria:
  - The biological fathers of infants in the NICU
  - At least 18 years of age
  - English or French speaking
  - Living with the mothers of the infants
  - Residing no more than one hour away from the NICU
  - Having an infant in the NICU for the first time
- Infants were:
  - In the NICU for at least one week
  - Singletons or twins

Data collection & analysis

- Demographic questionnaire for fathers.
- Infant medical data from chart review.
- Interviews audio recorded, transcribed verbatim.
- Thorough reading, followed by line-by-line coding (NVivo software).
- Statements relating to barriers and facilitators identified, compared between transcripts.
- Interviews and analysis concurrent.
- Categories refined.
Rigour

- Credibility:
  ◦ participants guided the interview process,
  ◦ representative quotes included in report.
  ◦ research team discussed the analyses until consensus was achieved.

- Confirmability:
  ◦ Audit trail of decision making during the analytic process.

- Transferability:
  ◦ Thorough description of study's methodology, setting, participants.

Sample

Father demographic characteristics (n = 18)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37.7 years (5.2)a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior college or less</td>
<td>10</td>
<td>55.5</td>
</tr>
<tr>
<td>University</td>
<td>8</td>
<td>44.5</td>
</tr>
<tr>
<td>Country of birth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>12</td>
<td>66.7</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>33.3</td>
</tr>
<tr>
<td>Language spoken</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>5</td>
<td>27.8</td>
</tr>
<tr>
<td>French</td>
<td>9</td>
<td>50.0</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>22.2</td>
</tr>
<tr>
<td>Currently employed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>18</td>
<td>100</td>
</tr>
<tr>
<td>Paternity leave at time of interview</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>8</td>
<td>45.5</td>
</tr>
<tr>
<td>No</td>
<td>10</td>
<td>55.6</td>
</tr>
<tr>
<td>First time father</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>11</td>
<td>61.1</td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>38.9</td>
</tr>
</tbody>
</table>

Note. All values presented as n (%) except where otherwise indicated. a = mean (standard deviation).
Sample (cont.)

Infant characteristics (n = 21)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gestational age at birth</td>
<td>28 4/7 weeks (3.1)a</td>
<td></td>
</tr>
<tr>
<td>Birth weight</td>
<td>1187 grams (491.8)a</td>
<td></td>
</tr>
<tr>
<td>Singleton vs. twin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singleton</td>
<td>14</td>
<td>66.7</td>
</tr>
<tr>
<td>Twin</td>
<td>6</td>
<td>28.6</td>
</tr>
<tr>
<td>Surviving twin</td>
<td>1</td>
<td>4.8</td>
</tr>
<tr>
<td>Reason for admission</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prematurity</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td>Mode of birth</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SVD</td>
<td>4</td>
<td>19.0</td>
</tr>
<tr>
<td>C/S</td>
<td>16</td>
<td>76.2</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
<td>4.7</td>
</tr>
<tr>
<td>Gestational age at time of interview</td>
<td>256.8 days (18.2)a</td>
<td></td>
</tr>
<tr>
<td>Weight at time of interview</td>
<td>2103 grams (461.6)a</td>
<td></td>
</tr>
</tbody>
</table>

Note. All values presented as n (%) except where otherwise indicated; a = mean (standard deviation). SVD = spontaneous vaginal delivery; C/S = caesarean section.

Findings

I. Infant factors influencing involvement
   Size and health status
   Infant development and feedback provided to fathers
   Twin status

II. Interpersonal factors influencing involvement
   Rewards of, and attitudes and beliefs concerning fatherhood
   Family management and finding balance
   Previous experiences

III. Environmental factors influencing involvement
   The physical environment of the NICU
   The social environment of the NICU
Infant factors influencing involvement

- **Size and health status**
  - “When I didn’t want to change him, it was because he weighed between two pounds and three and a half pounds”.

- **Infant development and feedback provided to fathers**
  - “I just wanted to stay there. She has no control over her smiles, but she had both eyes on me and she was making little smiles”.

- **Twins**
  - More opportunities to become involved due to increased child care needs

Interpersonal factors influencing involvement

**Rewards of, and attitudes and beliefs concerning fatherhood**

- **Rewards**
  - “Holding [his baby] is just out of this world”
  - “I don’t give him his bath because he cries all the time. I don’t like this”

- **Attitudes/beliefs (i.e.: role of father in infant care)**
  - “When the child is born the mother is very important to the child... The time that I have should be in providing things in the background, making sure everything is there, you know. The infrastructure.”
Interpersonal factors influencing involvement (cont.)

Family management and finding balance

- **Multiple roles**
  - Work, support/facilitator for mother, care of sibling at home, house work.

- **Paternity leave**
  - “My company gave me two weeks off… so my first week, my involvement was Monday to Friday”

- **Family support**
  - “Yes, I have my in-laws… They’re always there, whether it’s from the moral side or the practical side”

- **Mother’s influence**
  - Timing of paternity leave
  - Support of paternal role
  - Anxiety relating to paternal care

Interpersonal factors influencing involvement (cont.)

**Previous experiences**

- **Child care**
  - “I had one baby. I have lot of experience like that” but “we didn’t have a son like these (premature) babies”

- **Hospital**
  - “For the realism of my role… I was trained by an intensive care nurse”

- **Experience of others**
  - “You’re reading parents living it… They’re living more what we’re living”
Environmental factors influencing involvement

The physical environment of the NICU

- Restrictions due to infant being attached to equipment (e.g.: monitors) and being in an isolette.

- “I can’t bring her to the park, or bring her out for fresh air...You’re in a controlled environment”.

- Twins: Located in different portions of NICU vs. together.

Environmental factors influencing involvement (cont.)

The social environment of the NICU

- Visiting
  - “One of the easy things, I can come here whenever I want. 24 hours”.

- Other fathers and staff
  - Seeing other fathers, staff holding infants led fathers to do the same.
Environmental factors influencing involvement (cont.)

Interaction between the father and health care professionals

- **Mixed messages**
  - "Some said 'you should touch him'. Some said 'you shouldn't touch him'."

- **Information, encouragement, role modeling, coaching**
  - "The nurses were even passing by and if there was any improvement needed, then they would suggest".

Discussion

Infant factors

- Rewards similar to those described by fathers of term infants (Goodman, 2005).

- Biological mechanism for paternal behaviour (Feldman, Gordon, & Zagoory-Sharon, 2010).
  - Eye-contact highly salient to fathers of NICU infants
    - (Lee et al., 2009; Lundqvist, Westas, & Hallstrom, 2007; Sullivan, 1999).

- Infant feedback sought by fathers may not be received (Feldman et al., 2010; Goodman, 2005; Strathearn et al., 2008).

- Role of nurse in teaching subtle infant cues.
Discussion (cont.)

Interpersonal factors

- Fathers’ beliefs and demands of family situation influence level of involvement (Jia & Schoppe-Sullivan, 2011).
  - Current study: fathering role, impact of fathers on child development.

- Previous studies describe multiple, competing demands (Lundqvist & Jakobsson, 2003) as barriers to visitation (Wigert, Berg, & Hellstrom, 2010).

- Paternity leave: diminishing the need to return to work and providing time with the infant (Lindberg et al., 2008; Lundqvist et al., 2007).

- Social context: Includes extended family, mother of infant.
  - Mother as supporter vs. “gate-keeper” (Goodman, 2005).

Discussion (cont.)

Environmental factors- Nurses

- Fathers limited in initiative taken, ability to assume active role due to inconsistencies of nurses, nurses as “gate-keepers”. (Corlett, & Twycross, 2006; Wigert et al., 2008).
  - Infant could be viewed by staff as “belonging” to the NICU (Wigert et al., 2008).
  - Nurses’ welcoming attitude, invitations to parents to participate in care influences visitation (Wigert et al., 2010).

- Benefits of support of nurses described by Thomas, Feeley, & Grier (2009) in study of paternal self-efficacy.

- Foster nurse-parent relationship in NICU (Reis et al., 2010).
### Implications for Practice

<table>
<thead>
<tr>
<th>Issues</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fathers must balance conflicting demands</td>
<td>Explore demands on time</td>
</tr>
<tr>
<td></td>
<td>Assess fathers’ abilities to cope with competing demands</td>
</tr>
<tr>
<td></td>
<td>Promote involvement/ offer resources according to individual fathers’ needs</td>
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<tr>
<td></td>
<td>Maximize involvement in limited time father has</td>
</tr>
<tr>
<td>Discouragement/conflicting information from staff</td>
<td>Notify fathers once their infant’s condition permits physical contact.</td>
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<tr>
<td></td>
<td>Create uniform policies regarding parental involvement to promote consistency</td>
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</table>

### Implications for Practice (cont.)

<table>
<thead>
<tr>
<th>Issues</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother may act as barrier or facilitator</td>
<td>Explore mother’s influence</td>
</tr>
<tr>
<td></td>
<td>Help mother to support father’s role</td>
</tr>
<tr>
<td>NICU environment</td>
<td>Single bedded rooms where fathers may have private space with baby.</td>
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<tr>
<td></td>
<td>Play rooms for siblings.</td>
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<tr>
<td></td>
<td>Keeping twins in same part of NICU.</td>
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</tbody>
</table>
A father’s suggestion

- Make step down unit more homelike.

- Help fathers differentiate, psychologically, between acute phase of illness and “getting ready to go home”.

- Reminder that baby will soon be going home may promote involvement.
  - Prompt father to take more initiative, as baby is more stable.
  - Utilize nurses as coaches, rather than relying on them as primary caregivers.

- Illustration of fathers’ multifaceted needs relating to barriers and facilitators

Limitations

- Gender of interviewer
  - Female exploring male experience

- Few fathers of twins
  - Increased child care requirements

- Site specific considerations
  - However, participants and their infants varied across many variables.
Future Research

- Explore relationship between level of infant responsiveness and involvement level.
  - Impact of knowledge of infant cues?
- Study maternal influence on paternal involvement.

Conclusion

- Fathers’ involvement influenced positively and negatively by many factors relating to infant, interpersonal and environmental factors.
- Greater understanding of barriers and facilitators of individual fathers may lead to interventions that will promote involvement.
Questions?

References


References (cont.)


