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Clinging to closeness: The parental view on developing a close bond with their infants in a NICU

Heli Mäkelä, RM, MNSc, Midwife[a,c,*], Anna Axelin, RN, PhD, Associate Professor[a], Nancy Feeley, RN, PhD, Associate Professor, Senior Researcher[b], Hannakaisa Niela-Vilén, RM, PhD, Postdoctoral researcher[a]

[a] Faculty of Medicine, Department of Nursing Science, University of Turku, FI-20014 Turku, Finland
[b] Ingram School of Nursing, McGill University & Jewish General Hospital Centre for Nursing Research & Lady Davis Institute, Jewish General Hospital, Montreal, Canada
[c] Satakunta Hospital District, 28500 Pori, Finland

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ABSTRACT

Objective: To identify and understand how parents develop a close bond to their infants in the neonatal intensive care unit (NICU).
Design: A qualitative descriptive study; closeness and separation stories recorded in a smartphone application by the parents were analyzed using thematic analysis.
Setting and participants: Twenty-three parents of nineteen infants who were taken care of in a level III NICU in Finland.
Findings: Bonding moments and a disrupted dyadic parent-infant relationship continuously alternated as in a rollercoaster ride during the hospital stay. Transitions from closeness to separation and vice versa were the most emotional stages on the journey. Parents had a natural desire to be close and create a bond with their infants; however, they accepted the separation as part of NICU care.
Key conclusions: The findings indicate that closeness with their infant was the power that parents stored and that led them through unavoidable separation to normal parenthood.
Implications for practice: Bonding and attachment will occur naturally if parents are close to their infants and permitted privacy and time with their infants. NICU staff should create a peaceful and calming environment that enables and supports this bonding process.

Introduction

Parental bonding with an infant develops slowly through interactions during the pregnancy, birth and early hours, days and months of an infant's life (Lothian, 1999). It is supposed to develop naturally in the process of being together (Klaus et al., 1972), interacting and getting to know each other (Lothian, 1999). Being physically close to the mother is the most natural environment for a newborn infant immediately after birth. Early physical contact promotes infants' physiological stability, reduces crying and promotes breastfeeding (Moore et al., 2016). Close contact between a mother and her infant is crucial for this early bond to develop into a secure parent-infant relationship (Mercer, 2004) which is important for infant cognitive, motor and social development during hospitalization and beyond (Flacking et al., 2012). Closeness also shortens the length of hospital stay, relieves parental stress and enhances the parent-infant relationship in the NICU (Flacking et al., 2012; Anderzén-Carlsson et al., 2014).

The natural bonding process is threatened when an infant is born preterm or sick and needs intensive care (Davis et al., 2003). Despite systematic changes in the NICU care culture towards a family-centred care approach in which parents are involved in an infant's care (Mikkelsen and Frederiksen, 2011), intensive care still creates challenges to parent-infant closeness (Flacking et al., 2012; Feeley et al., 2016). Parents, both mothers and fathers, find hospitalization difficult and they experience stress, uncertainty, yearning and fear (Wigert et al., 2006; Lindberg and Öhrling, 2008; Obeidat et al., 2009). The level of distress is higher among mothers than fathers but both parents experience sadness and anxiety (Geetanji et al., 2012) Mothers are particularly susceptible to feelings of guilt about their infants' prematurity (Heidari et al., 2013). Separation from an infant is the most difficult aspect for both parents during their infant's NICU stay (Wigert et al., 2006; Lindberg and Öhrling, 2008; Obeidat et al., 2009; Sikorova and Kucova, 2012; Aliabadi et al., 2014) but mothers carry these unpleasant memories with

* Corresponding author.
E-mail addresses: heli.makela@satshp.fi (H. Mäkelä), anmaax@utu.fi (A. Axelin), nancy.feeley@mcgill.ca (N. Feeley), hmniel@utu.fi (H. Niela-Vilén).

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them long after discharge (Wigert et al., 2006). Although the emphasis on early bonding is on the mother-infant dyad, a father's involvement in providing closeness to the infant, for example via skin-to-skin contact, also has positive impact on a father's parental role attainment (Shorey et al., 2016) and enables a father to feel like a real parent (Sisson et al., 2015). Most importantly, separation has long-term health consequences such as developmental problems for infants, parental depression and insecurity in parenting (Flacking et al., 2012).

Parent-infant closeness and bonding in the NICU occurs through a three-way interaction – infant, parent and nurse (Fenwick et al., 2008). During the NICU stay, parents need help, support and encouragement from staff to form a relationship with their infants (Flacking et al., 2016). It is important to consider the father as an equal parent (Sisson et al., 2015) however, fathers may sometimes need encouragement from the staff to continue their involvement (Feeley et al., 2012; Baylis et al., 2014). Changes in NICU design from open bays to single family rooms have increased maternal satisfaction and involvement in the care of infants (Lester et al., 2014). Usually, staff strives to support closeness and minimize situations that cause separation in many ways (Feeley et al., 2016); however, parents have reported differences in staff's views on how they encourage closeness with infants (Blomqvist et al., 2013). Most of the factors such as treatments or procedures causing separation are not controlled by the parents (Feeley et al., 2016). It is important to identify situations and nursing approaches that help parents feel close and help them to develop a relationship with their infants. With this knowledge, it will be possible to further enhance closeness and avoid separation to better support parent-infant bonding in the NICU environment. The aim of this study was to understand how parents develop a close bond to their infants in the NICU environment.

Methods

A qualitative descriptive study design was used to understand parents' perspectives on closeness and separation between them and their preterm or sick infants. Parents recorded stories about their experiences with the Handy Application to Promote Preterm infant happY-life (HAPPY) smartphone application (Niela-Vilen et al., 2017) from December 2014 to May 2015.

Setting and participants

The study unit was a level III NICU (American Academy of Pediatrics, 2012) with 18 beds and 600 yearly admissions in Finland. The unit has ten single family rooms and three open bays with a total of seven beds. The unit is open to parents 24/7 and parents are encouraged to participate in medical rounds. The Close Collaboration with Parents Training Program, which fosters the implementation of family-centered care, was provided to NICU staff including midwives, registered nurses, physicians, and physiotherapists from 2009 to June 2012 (Axelin et al., 2014).

A convenience sample of mothers and fathers of NICU infants was recruited. We included parents who (1) were able to read Finnish, and (2) provided informed consent. Parents were excluded if (1) they were not caring for the infant after hospital discharge (e.g., foster placement) or (2) the infant's condition was critical according to the medical staff (unstable and may result in death), or (3) the infant had a major congenital anomaly. Mothers' perspectives are more prominent in the findings since we faced difficulties recruiting fathers. Fathers were more difficult to recruit, because they were not present as often as mothers in the NICU. Altogether 49 parents were approached for the study participation and 26 parents (22 mothers and 4 fathers) refused to participate. The most common reasons for refusals were a wish to focus only on the infant, not to anything additional such as research and unfamiliarity with the data collection method. The sample size was determined by data saturation. Thus, data collection continued until there were no new subthemes of closeness and separation factors emerging from the parents' stories.

Data collection

Parents were recruited by the female researcher, who provided parents with verbal and written information about the study. The researcher was not associated with the hospital where the data were collected. Parents were asked to use the HAPPY application to record their experiences for one day during the time they spent in the NICU. The smartphone with the HAPPY application was given to parents when they first arrived to the NICU on the day they had chosen for data collection. The researcher provided verbal and written instructions of how to use the HAPPY application. Parents were asked to record experiences about events they considered to be closeness or separation between them and their infants. Parents opened the application and chose whether the event was closeness or separation by clicking the buttons labelled "closeness" or "separation". After choosing the event, parents dictated their story and described where they were, what had happened and what thoughts they had about the event. If parents were unable to record their thoughts at that exact moment, then they could quickly insert a bookmark. At the appropriate time, they could return to the bookmarks and record their stories afterwards.

After 24 h, the smartphone was returned to the researcher. When the smartphone was returned, parents were asked to complete a questionnaire including questions about their background characteristics (e.g., age, previous children and daily presence in the NICU) and infant characteristics (e.g., gestational age, birth weight and care requirements). Recorded stories were downloaded to the study computer and the recordings were deleted from the phone before it was given to a next participant.

Data analysis

The recorded stories were analyzed using inductive thematic analysis (Braun and Clarke 2006). The analysis began by transcribing audio recordings verbatim by the first author who at the same time was familiarizing herself with the data. During this process, the initial ideas about the overarching themes were noted. The transcripts were labelled with an ID number and then downloaded to QSR NVivo 10 software for analysis. The transcripts were coded by the first author with NVivo and as the process continued the codes were reviewed and potential themes were identified (e.g., calming closeness and unavoidable separation). To ensure the trustworthiness of the analysis, the other members of the research team (AA and HNV) familiarized themselves with the data and the codes. Based on the discussions within the research team, the potential themes and subthemes were reviewed and revised; in addition a thematic map was created. After a critical review of the thematic map, the final themes and subthemes were determined precisely, defined and named.

Ethical considerations

The study protocol had a favourable statement by the Ethical Committee of the Hospital District of Southwest Finland (131/1802/2014) and was approved by the hospital administration. After verbal and written information was provided and any questions answered, written informed consent was obtained from each participant.

Findings

Participant demographics and recordings

Altogether 23 parents (mothers $n = 18$, fathers $n = 5$) of 19 infants participated in the study. Study participants made 141 recordings with the HAPPY application. The average number of entries per parent was