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Original Research – Qualitative

Bonding in neonatal intensive care units: Experiences of extremely preterm infants' mothers

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ABSTRACT

Background: The birth of an extremely preterm infant can disrupt normal mother–infant physical contact and the care provided by the mother. This situation has an impact on the process of bonding between the mother and the child.
Aim: The objective of this study was to describe and understand the experiences of mothers who have extremely preterm infants admitted in Neonatal Intensive Care Units with regard to their bonding process.
Methods: An interpretive, qualitative research methodology using Gadamer's philosophical hermeneutics was carried out. A focus group and eleven in-depth, semi-structured interviews were conducted. Data were collected between June and September of 2016.
Findings: Sixteen women with a mean age of 34.4 years participated in the study. Two themes emerged from the data analysis: (1) premature labour and technological environment, a distorted motherhood, with the subthemes 'feeling of emptiness and emotional crisis' and 'the complexity of the environment and care generate an emotional swing'; (2) learning to be the mother of an extremely preterm infant, with the subthemes "the difficulty of relating to a stranger" and 'forming the bond in spite of difficulties'.
Conclusions: The bonding with extremely preterm infants is interrupted after giving birth. The maternal emotional state and the environment of the neonatal intensive care unit limit its development. Nursing care can facilitate mother–infant bonding by encouraging communication, participation in care, massaging or breastfeeding.

Statement of significance

Problem

Studies on mother–infant bonding have focused on the premature infant in general, however, the bonding process in extremely preterm infants has not been clearly explored.

What is already known

The quality of postnatal bonding is influenced by a variety of factors, mother–child interaction being one of these. The premature birth and the consequent hospitalization of the child interfere with the normal bonding process.

What this paper adds

This paper shows the obstacles that mothers find to be connected to their extremely preterm infant as well as the elements that help them develop their bonding.

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1. Introduction

A preterm birth, which refers to births before 37 weeks of gestation, is the most prevalent health problem among infants in industrialised countries.[1] The worldwide incidence of neonates born prematurely is estimated to be around 11.1%.[2] Extremely preterm infants (<28 weeks of gestation — WG) are the group with the highest risk of motor, cognitive and behavioural problems.[3] Physiological immaturity and low weight of neonates born prematurely require admission to Neonatal Intensive Care Units (NICU) for vital signs and nutrition control.[4] A preterm birth is a situation for which parents are not prepared,[5] experiencing emotional shock, fear, anxiety, depression and post-traumatic stress.[6,7] Although neonate admission in NICU reduces mortality, parental separation alters parental interaction and roles.[8,9] Prematurity increases the risk of psychopathology in the child,[10] as parents may suffer denial, impotence, uncertainty, guilt and bonding deficiencies.[11,12]

Attachment is the emotional bond that the child develops with their parents (or caregivers). According to the Theory of Attachment,[13] the framework of our research, the safety, anxiety or fear of a child is determined by the accessibility and responsiveness of their parent (or caretaker), with whom they establish the bond. Mother–child bonding begins between the second and third trimester of pregnancy, extends to the postpartum and neonatal period and contributes to the physical, psychological and emotional development of neonates born prematurely.[14,15] In addition to the pathophysiological problems, the premature birth affects the role of motherhood,[16,17] and together with the mother–child interaction deficiency in the NICU, generates stress, loneliness, fear of loss and risk of insecure attachment.[18,19] Several studies have highlighted the importance of emotional support, paternal involvement, and physical contact with neonate born prematurely in the NICU.[15,20] Hermeneutics is the methodology of interpretation concerned with problems that arise when dealing with meaningful human actions; as a methodological discipline, it offers a toolbox for efficiently treating problems of the interpretation of human actions. The bonding process in NICU has been studied in neonatal nurses,[15,21–25] however greater understanding is needed from the point of view of mothers who have extremely preterm infants.[8] The aim of this study is to explore, describe and understand the experiences of mothers who have extremely preterm infants admitted to the NICU with regards to the bonding process.

2. Method

A qualitative approach based on Gadamer's hermeneutic phenomenology was employed in the processes of data interpretation and analysis.[26]

2.1. Participants and setting

Through convenience sampling, mothers of extremely preterm infants admitted to NICU from a specialized hospital with 15 modules (12 for neonates and 3 individual modules for children up to 14 years of age) were selected. It is a traditional NICU (Level III) model, with all newborns in a common ward, without restricted visiting hours, where maternal participation is limited to breastfeeding and skin-to-skin contact. Inclusion criteria were: female gender, over 18 years old and to be the mother of an extremely preterm infant (<28 WG and <1000 g) hospitalized in NICU for at least 30 days. The exclusion criteria were: refusal to participate in the study, being the mother of an infant with congenital pathology, sepsis, neural tube defects or death. A total of 18 women agreed to participate, although two abandoned the data collection, one due to physical problems, the other, for declining to discuss the issue. A total of 16 women participated in the study, 5 formed a focus group (FG) and 11 participated in in-depth interviews (DI) (Table 1). The mean age of participants was 34.4 (SD = 4.6). 75% of the women had a single gestation, the rest being multiple; 68.7% of births were by caesarean section and the rest were vaginal (Table 1). The mean gestational age was 25.9 weeks (SD = 0.9), the mean birth weight was 793.1 g (SD = 152.5) and the mean stay in the NICU was 51.5 days (SD = 12).

2.2. Data collection

The data collection was carried out between June and September 2016, in a hospital in the southeast of Spain equipped with a NICU. The focus group, with a duration of 87 min, was carried out in the local university's premises; the in-depth

Table 1
Socio-demographic data of the participants (N = 16).

Partici-pant	Age	Marital status	Level of education	Parity	GW	Type of birth	Multiple birth	Birth weight	Days NICU
FGW1	35	Married	Higher	2	25	Vaginal	No	800	62
FGW2	37	Married	Higher	1	26	Caesarean	No	800	58
FGW3	38	Married	Higher	1	27	Vaginal	No	840	65
FGW4	36	Married	Higher	1	27	Vaginal	Yes	940	54
								970	50
FGW5	27	Living with partner	Medium	3	26	Caesarean	No	830	32
DIW1	35	Married	Medium	4	27 + 2	Caesarean	No	970	37
DIW2	28	Married	Basic	1	27	Vaginal	No	875	33
DIW3	31	Married	Higher	1	26 + 4	Caesarean	No	950	35
DIW4	30	Married	Higher	1	25	Caesarean	Yes	575	66
								520	63
DIW5	32	Separated	Medium	2	24 + 5	Caesarean	Yes	560	52
								525	55
DIW6	36	Married	Higher	1	26	Caesarean	Yes	940	52
								820	60
DIW7	32	Separated	Medium	1	25 + 3	Caesarean	No	840	63
DIW8	33	Married	Basic	2	25	Vaginal	No	607	58
DIW9	41	Separated	Higher	3	26	Caesarean	No	740	34
DIW10	34	Separated	Medium	3	27 + 1	Caesarean	No	900	38
DIW11	45	Married	Higher	1	26	Caesarean	No	810	62

FGW = focus group women. DIW = in-depth interview woman. GW = gestational weeks.

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