PRETERM INFANT: MATERNAL EXPERIENCE DURING BREASTFEEDING IN NEONATAL INTENSIVE CARE UNIT AND AFTER DISCHARGE

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Descriptors: Infant, Premature; Infant Care; Breast Feeding; Home Nursing.

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Since the time when, culturally, breastfeeding was the most routine task of a mother, the nutrition of a premature child always raised doubts and fears, representing a challenge for those who care for these babies\(^1\).

In health, the literature shows that breastfeeding is considered the best source of nutrition for preterm infants\(^2\)-\(^4\). Bearing in mind that the breast milk produced by the mothers of preterm infants is what best suits their nutritional needs during their stay at the Neonatal Intensive Care Unit (NICU) and after discharge. It is essential that they receive the protective factors present in the milk from their own mothers. However, if this strategy is not possible, we should create opportunities for preterm infants to receive these factors through mothers’ milk banks, from milk compatible with their gestational age or, as a last resource, that the baby is fed a special formula for preterm infants\(^1,4\)-\(^5\).

Some authors\(^6\)-\(^8\) have shown that, unlikely the high percentage or readmissions (especially in cases of Very Low Birth Weight – VLBW), mobilizing and supporting health professionals to encourage breastfeeding contributes to increase the exclusive breastfeeding rates, reducing the morbidity and need for medical treatment for low birth weight preterm infants. However, even though breastfeeding is the richest food for babies\(^9\)-\(^10\) and that breast milk is the most appropriate food for them, many studies show low indicators related to this practice among us\(^1,9\).

Even after the establishment of affectional bonds and promotion of breastfeeding within the NICU, many preterm infants who leave the hospital breastfeeding are weaned in inopportune time, revealing the lack of intervention models to support breastfeeding and promote natural breastfeeding in premature infants, despite the undoubted benefits of the mother’s own milk for these children\(^8\).

Therefore, this study aimed to identify the maternal perceptions and experiences in the nutritional care of their children during hospitalization in a Neonatal Intensive Care Unit (NICU) and after discharge, verifying the main difficulties faced and strategies used to overcome them.

**METHOD**

This was a qualitative interpretive research carried out with babies in their own home after hospital discharge, covering the entire social and emotional context of the binomial mother-preterm infant. The attempt to cover the whole problem investigated in its multiple dimensions led to intentionally choose\(^11\) the subjects who took part in the observation and direct communication group.

From June to October 2009, home interviews were conducted with eleven mothers who gave birth to extremely premature babies (gestational age <37 weeks and birth weight <1,500g), who were admitted to the NICU of the Maternidade-Escola Assis Chateaubriand (MEAC) in Fortaleza, Ceará, Brazil.

The number of mothers interviewed was determined by theoretical saturation. It is worth mentioning that the point of theoretical or meaning saturation is when the observer/interviewer realizes that there won’t be new surprises or insights with the inclusion of new participants, resulting in redundant information\(^12\).

Therefore, we proposed to reflect on the ontological aspects, i.e. the human nature that is subjective, sensitive, affective, evaluative and opinionated\(^11\), trying to identify the experiences and signification processes of this context, believing that its nature does not admit a numeric answer, with proportions, absolute values or frequency distribution.
A semi-structured interview was used, in the search for a detailed understanding of the beliefs, attitudes, values and motivations of mothers in caring for their children. The statements were recorded, transcribed and thoroughly read, and there were also field notes about the family and household characteristics, as well as the personal impressions of the researcher. Mothers were encouraged to argue and question during interviews, whenever they felt impelled to it.

The findings of this research were analyzed in a comprehensive and interpretative way, under the theoretical framework built based on Heideggerian Hermeneutics, which is characterized by an interpretive approach that uses the people’s experiences to a better understanding of the social, cultural, political and history context in which these experiences occur, resulting in the description of shared practices and common meanings. It is worth mentioning that the interpretation and understanding of the human experience are of special importance, because the hermeneutics investigation often focuses on the meaning, on how individuals socially and historically conditioned interpret the world in a given context.

Following the recommendations of Resolution No. 196/96 of the National Health Council, which regulates research involving human subjects, before starting the data collection, this research project was submitted to and approved by the Ethics Committee of the MEAC, under protocol No. 020/09.

We assured the confidentiality of the mothers’ identities and provided information on the willingness to participate in the study, and that there would be no prejudice to the assistance received in the maternity-school, whether they refused or gave up from participating in the study. The women were identified with the letter M, then the corresponding number to the sequence of the interview (e.g. M1, M2, ...M11).

RESULTS AND DISCUSSION

Among the eleven women interviewed, the ages ranged from 20 to 38 years; the majority (7) was in their first pregnancy; one woman was functionally illiterate, one did not complete higher education and one was graduated, while the other (6) had incomplete high school or complete basic education. Two of the interviewed mothers were housewives, while the others were employed in commerce or in the textile industry. Only one of the mothers reported the attempt of aborting a premature baby, while the others reported satisfaction with the surprise pregnancy.

All interviewees lived in the neighborhoods on the outskirts of the great Fortaleza and performed prenatal care at the time they gave birth; four of these women were being treated in private clinics with delivery not covered by health insurance, whereas eight women were being treated at local health centers, near their homes.

Because of two cases of mothers with twins, thirteen infants comprised the study; their birth weight varied a lot, ranging from 720g to 1,490g, with eight of them over 1,300g at birth, while the others did not reach up to 1,000g. Only one child was discharged with less than a month of hospitalization (28 days); the one with the longest period experienced 110 days of hospitalization, while other infants spent between 32-96 days hospitalized. Six infants received the care provided on the Kangaroo Mother ward.

From the characterization of the binomial mother-extremely premature infant, we present the maternal experience in the VLBW infant feeding process during hospitalization and at home, according to four categories of analysis.
Guidance received about their child’s feeding during the hospitalization period

Exclusive breastfeeding is the best way to feed a baby until six months of life, indicated especially for babies with low weight or underweight; however, the prolonged hospital stay associated with the lack of structural conditions and/or direct action from the health team, besides social and cultural factors, such as use of pacifier and bottle-feeding and the family influence, have been identified as negative influences on breastfeeding\(^4,9,13-15\).

In this investigation, all mothers – primiparous or not – faced, besides expectations with physical care, the insecurity caused by feeding an extremely premature baby in the first days of their lives and after discharge. However, it was evident in the speeches that the guidance received during the postpartum hospitalization helped this stage of defining the standard feeding of the baby, especially when this information was demonstrated. Interviewees reported they received support on the milking technique soon after the baby’s birth and started doing it daily to ensure their child’s feeding: They taught us everything, how to milk... And just from watching the other mothers we end up learning, we also want to give the best for the baby, and we hear everyone saying that the most important thing is really our milk, even if it is little... (M5).

We should also mention that the authors often understand that the quality of the guidance provided to mothers during the infant’s hospitalization can determine the breastfeeding maintenance after hospital discharge, especially when it comes to breastfeeding premature infants\(^0,14-17\).

Nevertheless, mothers who visited their babies at night (four of them) did not enjoy the same guidance service, nor developed friendships with other mothers, and perhaps this is the reason they were less stimulated to maintain milk production during their child’s hospitalization. These women did not report, at any moment, the technical guidance that the others received about milking or, if questioned about it, claimed the lack of such guidance: They never guided me on anything... Once, when I was there on a Saturday, they took me to this little room to milk, but there was no one there to guide me... We kept taking the milk, but no one took that there (referring to the milk pump), because we could not, it was with bare hands... So, I just took it because I knew how, because after three children, I really knew it... (M1).

We also reinforce the idea that women with hospitalized babies seek to share their experience with other mothers in the same situation\(^17\), taking into consideration that, besides technical support, we notice that the interaction with other women going through the same situation represented an important influence in this period of uncertainty, serving as stimulus and company in the comings and goings to the milk bank.

In another moment, discussing about the guidelines for breastfeeding maintenance after discharge, emerged stories about the weaning process, but they have been contradictory; some mothers repeatedly reaffirmed the guidance on the maintenance of exclusive breastfeeding, while others ensured that changing the milk had been approved and even suggested by some doctors. Nevertheless, mixed breastfeeding was the most recurrent guidance, provided by pediatricians, according to the interviewees: ...he had completed (the first month of life) at the hospital, where he was only in the breast, so I asked the doctor if I could give him another milk, then she said I could give him the X... so I bought it and spent one month giving him... (M10).

It is essential to point out that, even with the impossibility of breast feeding during hospitalization (with decreased milk production), mothers of preterm infants can and should be guided about the re-lactation techniques, ranging from the proper training on the child’s position on the breast, nipple stimulation and milk expression, concomitant use of supplement during suction, to the use of drugs that stimulate lactation, such as metoclopramide and domperidone\(^15,18\).
Use of gauze in the NICU as a way of offering food to preterm infants

In the midst of discussions about feeding extremely premature babies, it is necessary to observe a constant practice in maternal reports. Some of them witnessed their babies sucking gauze soaked in milk during hospitalization: ...she stood there hungry, I was just wondering, she is hungry, crying... She was always sucking that little gauze that I put with milk, but she wanted more (milk) so she was there just sucking (the gauze) to stave off hunger... (M1). I gave a little (milk), you know, when she was with the probe, I gave her in the cup, I think it was with a little gauze that they put and gave... (M2).

The maternal speeches revealed that sucking gauze was one of the ways of stimulating and feeding the hospitalized baby.

From thematic review, we identified only a few studies that have investigated the relevance of this conduct in NICUs\(^\text{17-19}\); meanwhile the practice is being used with the excuse of stimulate sucking, without presenting any scientific evidence. These authors suggest the use of gauze soaked in glucose solution as a way to stimulate the sucking, swallowing and breathing reflexes in the weaning process by gavage, without however noting that improper handling of sterile gauze may be a risk factor for contamination. We should mention that the presence of lint in gauze may endanger even more the clinical stability of the baby, in the case of any aspiration.

It is important mentioning that, like other techniques implemented during the hospitalization period, the suction gauze may be performed at home, especially due to the recurrent maternal complaint about the baby’s restlessness. When being used by health professionals during hospitalization, one can be induced to realize two purposes for its use: to serve as a sucking stimulation measure and also nurture the child that cries when hungry or in pain. If, by any chance, this practice is performed at home, the above-mentioned risks become bigger.

Baby feeding schedule after leaving the maternity

Mixed feeding was identified in our interviews as a widely adopted practice in feeding extremely premature babies. Similar to that found in this study, we observed that the mother of premature baby does not maintain exclusive breastfeeding when realizes that her child is not satisfied and/or not gaining weight\(^\text{10,16}\).

In this experience, mothers that wanted to exclusively breastfeed their babies showed some frustration with the need for supplementary food, and only did it at fixed times of the day or when the baby was no longer satisfied with the breast. On the other hand, women who left the maternity already with mixed feeding were the same who reported more frequent use of artificial formula to complement the feeding of their children, as well as the anticipation of the weaning process with the inclusion of porridges, teas and juices: ...the whole day I give him the breast, I just give the baby bottle when I really see that there is no milk... There are days when I can manage it, he takes only one; there are days that are two, there are days that are three, when I'm already on the edge (smiles)... (M6) ...X (child’s name) had swollen navel... I was giving him artificial formula in the beginning, then I think it was because of that, because after I stopped, his navel reduced, and now I’m giving him other artificial formulas (M4).

Regarding the babies eating schedules, what impressed us most were the maternal parameters for the quantitative increase of the food supply. All women using the supplement or that fed their babies only with artificial formulas quickly doubled or tripled the amount of milk offered. As excuse, they reported the baby’s cry as a sign of hunger and, as verified in the literature, they associate the image of a chubby baby (or weight gain) with the security of a healthy baby, which gives them satisfaction and confidence\(^\text{14-15}\).
Maternal fatigue: justifying the use of complementary food

Many mothers reported a decrease in milk production at moments of fatigue and stress, always appealing to complement with artificial formulas. The biggest concern with complementary food in premature infants is that the use of baby bottles results in the loss of the child’s interest in sucking breast nipples, as well as the decrease in milk production due to a lower frequency and duration of breastfeeding (15-16).

On the other hand, the literature has often shown the advantages of cup-feeding on food supplementation in premature babies, bearing in mind that this strategy seems to provide adequate suction to the breast, as it prevents nipple confusion (15,18-19). However, none of the women in our investigation mentioned the use of cup-feeding (nor its recommendation) to complement breastfeeding after child’s discharge.

During the interviews, in the statement of three mothers who did not breastfeed their children at any time of day, they had already left the maternity-school without performing it, reporting the impossibility of being continually with their babies during their period of hospitalization and failure in the re-lactation attempt, including prescription drugs to stimulate milk production.

Although health professionals exposed the need of maintaining breastfeeding and prohibited the use of porridges, teas, milk and farinaceous food inadequate to babies, their use was recurrent in the infant’s feeding (mothers followed the family’s opinion over the professional arguments). It is worth mentioning that the introduction of the food was omitted from the doctors during consultations. We realize that these omissions were intended to avoid further embarrassments with the professional, also revealing the gap in the relationship between these actors, as seen in the speech: ...there was a day that I asked them if he could have some tea, some porridge, but she (the doctor) said no, only the artificial formula, then I... (then looks away). But my mother said that I could change it, so I changed it, she changed it (the grandmother takes care of the children while the mother works outside the home), I do not even ask another person... (M4).

Given the situation of each woman, her financial situation, the influences of family and friends, and her own fatigue, some mothers assumed to be using porridges based on milk and farinaceous food more economical than those recommended for feeding premature children, believing that they were doing what was good for their babies, compared to those suggested by health professionals: ...I started to give him the porridge... And it worked... And he improved, you know, because we gave him industrialized milk, he was squeezing and he even turned red... To be able to poop... and he did; then he (pointing to his companion) said: It is about time to change this milk! Give him another to see what it is like... Then I gave him, just to see, and then he became normal, pooping regularly... it worked! (M10).

It is important mentioning that studies on the health of Brazilian children also identified the early introduction of food and at inappropriate ages, such as non-breast milk feeding in 47% of infants aged between four and five months and the use of porridges in 31.6% of these children (20).

The study pointed reflections on the feeding practice offered to premature babies, from admission until hospital discharge, reporting the very early weaning in this group of children. Due to their physical frailty and low immunity, these babies should be maintained on exclusive breastfeeding after hospital discharge, preventing morbidity inherent in this age group and even early mortality.

Throughout the analysis of speeches and their meanings, we verified that adopting mixed feeding was gradually associated with the use porridges by a considerable share of women in this study, which was not diagnosed during follow-up visits.

In addition to the indiscriminate use of porridge and milk formulas, there is the urgent need to discover...
the reasons for the lack of premature babies in exclusive breastfeeding at discharge, as well as means to facilitate communication between mothers and professionals. We observed that the use of porridge was reported by mothers as a solution to restlessness, crying or some other aspect of the baby’s physical condition, a practice accepted by the family.

We consider that conducting support groups, based on dynamics with open and informal dialogue between mothers and professionals, would be a useful instrument to elucidate doubts, also revealing the home habits harmful to the baby, as the use of porridge or abandoning certain prescribed medications.

Another procedure that would probably help these babies breastfeeding is the strengthening of cup-feeding in the administration of complementary food, including after discharge, because it would reduce the use of baby bottles, since that, yet when not used in the hospital, it becomes a routine conduct at home, even recommended by some health professionals.

In this study, we observed the use of gauze to administrate breast milk or infant formula to premature infants admitted to the Neonatal Intensive Care Unit (NICU). This fact draws attention because, from the search in national and international literature, we did not find any scientific research that could suggest this practice as an important technique for the stimulation of sucking, swallowing and breathing reflexes. Such conduct should be reflected and analyzed with scientific rigor required from health care professionals who adopt it, in order to avoid the dissemination and the risk of morbidity and mortality in premature infants.

Here arise some questions relevant to all professionals who daily deal with the monitoring of the binomial mother-premature infant after hospital discharge: the urgent need to rethink communication skills along with these women, to overcome challenges and offer exclusively breast milk to their child. In this same sense, the communication obstacles during consultations need to be overcome so that health professionals are able to reveal the difficulty faced in exclusive breastfeeding, also after discharge.

The findings, from the chosen approach, cannot be generalized to all mothers of premature babies hospitalized at public NICUs. The fact that the women in this study accepted to participate in the research, with the presence of a field researcher in their home, already shows greater sensitivity to the child care and a more critical perception of health services.

Health professionals working in primary health care recommend the need for a follow-up routine at home, with mothers of children with very low birth weight after hospital discharge, seeking to support them and encourage breastfeeding. Follow-up studies of preterm infants should be encouraged, so that we increase the overview of how these children who managed to survive are being cared for and fed, despite the very low birth weight.

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REFERENCES


