

ORIGINAL RESEARCH ARTICLE

EXPERIENCES OF MOTHERS HAVING PRETERM INFANTS ADMITTED IN NEONATAL INTENSIVE CARE UNIT: A QUALITATIVE STUDY

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ABSTRACT

Background: Mothers of preterm infants begin their journey of motherhood in stressful, highly medicalized environment of Neonatal Intensive Care Unit which influences variety of factors. The objective of study was to explore experiences of mothers having preterm infants admitted in NICU.

Methods: Qualitative phenomenological study design was used and total of nine mothers having preterm infants were selected purposively from NICU unit of Universal College of Medical Sciences, Teaching Hospital. Data was collected using in-depth interview guidelines and analyzed using Colaizzi's steps.

Results: Six themes were emerged after analysis i.e. experiences of holding a premature baby for first time, emotional experiences, familial experiences, mother-child bonding, interaction with NICU staffs and coping strategies adopted during hospital stay. Mothers experienced contradictory emotions while holding their preterm for first time. They felt emotional detachment due to the emergency NICU admission. Mothers were anxious about unpredictable life span of baby and blamed themselves for early delivery. Although they faced economic hardship for prolonged NICU stay, they received familial support for financial expenses. During their visit to NICU, mothers felt health professionals to be supportive. To deal with these emotions, mothers adopted coping strategies like acceptance of the situation, devotion towards god, attachment with family.

Conclusions: Mothers were unprepared about the birth of baby so early. So, they experienced problems like emotional detachment, and economic hardship due to emergency NICU admission. Hence, health professionals need to pay more attention to reduce anxiety of mothers by providing continuous communication about baby's progress.

INTRODUCTION

Preterm babies are those born before the completion of 37 weeks' gestation. Every year, an estimated 15 million babies born preterm and this number is at an alarming rate.¹ Preterm birth complications are the leading cause of death among children under 5 years of age, which accounts for approximately 1 million deaths in 2015.² Across 184 countries, the rate of preterm birth ranges from 5% to 18% of babies born.¹ Preterm birth is truly a global problem. On average, 12% of babies are born too early in lower-income countries compared with 9% in higher-income countries.²

Giving birth to a preterm infant is stressful event for parents as it leads to hospitalization and separation from family which create psychological stresses to parents as well as causes inadequate attachment with their baby.^{3,4} The preterm infant is removed from the delivery or operating room immediately after birth and taken to a NICU where the focus is on providing emergent care for the infant rather than on bonding opportunities. This loss of time with her infant can severely limit a mother's opportunity to learn her infant's early cues. As time away from her infant increases, maternal-infant bonding and attachment become more difficult to establish.⁵⁻⁸

For attachment, mother and baby should spend a time together right after birth. However, in many clinical settings, there remains some reluctance to implement this approach for preterm babies. To address this gap, this study aimed to explore the experiences of mothers having preterm infants admitted in neonatal intensive care unit which is very important to understand the challenges faced by mothers and intervene appropriate strategies to reduce those challenges.

METHODS

Qualitative phenomenological study was adopted to explore the experiences of 9 mothers having the preterm infants. Purposive sampling technique was used to select mothers. The population of study consisted of mothers having preterm infants admitted in NICU of Universal College of Medical Sciences-Teaching Hospital, Bhairahawa. Mothers having preterm infants who fulfilled following criteria were taken as study sample: (i) preterm infants aged less than 37 weeks of gestation, (ii) whose babies were hospitalized in NICU for at least 3 days, and (iii) who could speak Nepali and Hindi. Exclusion criteria were as follows: i) mothers whose infant was under mechanical ventilation, ii) mothers whose infants

had severe disability, and iii) mothers who have spent < 3 days at the hospital.

Prior to data collection, ethical clearance was taken from Institutional Review Committee of UCMS-TH. For exploring lived experiences, in-depth interview guideline was developed by researchers based on review of related literatures. In-depth interview guidelines consisted of fifteen open ended question designed to elicit perceptions and experiences from mothers. Data was collected from 20th September 2020 to 15th December 2020. First of all researchers visited NICU unit of UCMS-TH, and identified the preterm and mother details. Then, mothers were contacted for verbal consent of date, time and place for interview according to their convenience. They were approached by phone call on the day of interview according to pre-determined schedule. Written informed consent and special permission were taken for digital recording and field notes.

Mothers were interviewed in separate and quiet room of hospital to make them feel comfortable. Data was collected by using in-depth interview guidelines through face to face interview method in simple Nepali and Hindi language. Prior to interview, informal conversation was started to make participants feel comfortable. Each interview lasted for 30-40 minutes. Verbal and non-verbal expressions of the mothers were noted during interview. Each in-depth interview was recorded on a digital recorder to obtain true account using mother's own words. In addition, field notes were also maintained to capture other pertinent information during data collection. For the subsequent interview, time and date was fixed with the mothers. Two to three data collection sessions were carried for each mothers and data collection was stopped after data got saturated.

Data collection and analysis was done side by side. On the same day of interview, code number was assigned to information sheet. Transcribing was done to create the verbatim at the end of interview day. The entire interview was then translated to English. After that, data were analyzed using seven steps Colaizzi's method.¹⁵

Colaizzi's seven steps of data analysis method

- i. re-reading the transcriptions to obtain general sense of whole content
- ii. extracting significant statements for each transcript that pertain to the phenomena under study
- iii. formulation of meaning from significant statements
- iv. making categories, themes and cluster of themes from formulated meanings
- v. integration of findings into exhaustive description
- vi. describing the fundamental structure of phenomena
- vii. validation of findings to compare the researcher's descriptive results with their experiences.

RESULTS

The mothers age ranged between 20–40 years. All mothers followed Hinduism religion. Seven mothers were literate. Four mothers were employed and eight belonged to joint family. Six mothers were primi-gravida and eight mothers delivered singletons. Seven mothers gave birth through spontaneous vaginal delivery (SVD). The gestational age of babies was between 28–36 weeks.

Table 1: Emerged themes on experiences of mothers having preterm infants admitted in NICU

Concepts	Categories
Experiences of holding preterm baby for the first time	Precious moment
	Relief after holding baby
	Nervous to hold for first time
Emotional experiences of mothers while their baby in NICU	Anxious about baby's condition
	Feared about baby's survival
	Guilty for preterm delivery
Familial experiences after a preterm birth	Happy regardless of baby's weight
	Supportive (psychologically and financially)
Mother child bonding	Heavenly happiness
	Pleasurable moment
	Difficult experience
Interaction with NICU staffs and counselling process	Good interpersonal relationship
	Satisfied with care and services
Coping strategies adopted by mothers during hospitalization	Positive Coping (keeping faith, remaining hopeful for future, use of treatment services)
	Devotion to god
	Attachment with family

Experiences of mothers having preterm infants admitted in NICU were explored through in-depth interview and their experiences were interpreted reflecting their problems and responses to overcome the situation. The experiences of

mothers having infants admitted in the NICU are complex and multifaceted.

The moment of holding the baby for first time was characterized by contradictory emotions, with some mothers describing it

as “precious moment”, and a “great relief after holding baby” while others were nervous to hold baby for first time. Some mothers who underwent caesarean section were unable to hold baby for few days after birth. One 24 years old mother shared her experiences as *“At first I was nervous to hold my baby. But later.....umm...the moment of holding the baby was much precious. I have mixed feeling of heavenly happiness and nervousness at the same time while holding my small baby who has little hand and feet.”* (Participant5)

Feeling of insecurity for NICU admission was also observed among mothers. One mother narrated her feeling as, *“Although, I was explained about the premature delivery and NICU admission, I didn’t expect that the condition of baby will be such critical that made to admit baby in NICU for more than a week. I get feared because of detachment, prolonged NICU stay etc.”* (P1)

Majority of the mothers saw their baby immediately after birth whereas some mothers first saw in NICU. Mothers who saw their baby in delivery room rarely have idea about how the baby looked. Unexpected early birth and NICU admission make mothers emotionally detached. This detachment cause mothers to exhibit negative emotions like anxiety and guilty about baby’s lives. Likewise, seeing their baby attached with medical equipment makes mother more worried. One mother who was unprepared about birth expressed her anxiety as *“I didn’t expect of preterm birth and I was not prepared about it. I came to hospital for severe abdominal pain and was informed that labor events initiated already. All these happen so unexpectedly that I was anxious about survival and prognosis of baby as it was not completely matured for birth.”* (P2)

Few mothers expressed negative emotions for the premature birth of baby. They blamed themselves for the present condition of the baby. A mother accentuated, *“I am responsible for the birth of baby so early. I got severe abdominal pain and bleeding per vagina before four months of expected date of pregnancy. If I was okay, these all events might not appear.”* (P5)

After delivery and holding their baby for first time, their concern regarding survival shifted to stable physiological functioning of baby. One mother narrated her feelings as *“Before birth of baby, I was concerned about the survival of baby. Now after delivery, I felt some relief. Sometimes, I get worried thinking about his physiological functioning like breathing, heartbeat, swallowing.”* (P6)

It is obvious that birth of baby in family brings new hope and happiness. Mothers narrated that their family members were much happier by birth of new one regardless of their weight and NICU expenses. Majority of mothers explained that they were blessed to have such family who were continually helping them psychologically and financially. Their in-laws and biological parents counseled them in such situation giving them strength to deal with stressors. One mother aged 26 years expressed her feeling as *“My in-laws are being supportive during this difficult moment. Although they were unable to visit hospital, they interact with me in phone. During conversation, they counseled that everything will be all right by time as we are in the right place (hospital) taking the right treatment. All*

the responsibility of financial expenses of the hospital charges is taken by my family members.” (P9)

Regarding the mother-baby interaction, there was scheduled time for the mothers whose babies were doing well. Mother with caesarean delivery and whose babies were ill could not have the privilege of breastfeeding and skin to skin contact. Mother who breastfed their baby described the moment to be rewarding. These mothers found breastfeeding as only the way to become close with their babies as it helps in strengthening their bonding. While, there were some mothers who exhibited breastfeeding as a painful experience because of their nipples problems. Mother aged 24 years, who enjoyed breastfeeding, narrated her feeling as *“Holding my baby in my lap during breastfeeding and making eye to eye contact gives me an immense pleasure. It provides a great experience with complete satisfaction of being a mother.”* (P5)

NICU is the place to care, nurture and treat the newborn. Mothers in the study expressed feeling of satisfaction with the care provided in NICU for baby. Further, they narrated that they were happy with the service of round the clock availability of health professionals. One mother narrated her feeling as *“I am satisfied as they counseled and pre-informed us when they are doing any investigations /procedures. The improvement in baby was due to doctors’ and nurses’ efforts and it has been a reason for satisfaction to me. Sometimes, I think that if doctors and nurses would tell even more about my baby’s condition.”* (P7)

Dealing with all these unexpected events was not easy for the mothers. All the mothers reported that they tried to cope with their situation by using different coping measures such as devotion to god, positive coping (keeping faith, remaining hopeful for future, use of treatment services) and attachment with family. One mother aged 26 years narrated her feeling as *“I am in right place i.e. hospital receiving the good treatment. I counseled myself that once the baby is “okay” we will be together again. As the babies are the gift from the god, their survival and health also depends on god. Hope the god will shower his blessings upon me and my baby.”* (P9)

DISCUSSION

Mothers in study experienced contradictory emotions while holding the baby for the first time. Some mother described it as “precious moment”, some felt “nervous” whereas some get “relief”. This finding of study is consistent with study conducted in United Kingdom in which mother experiences anticipation of seeing and touching their baby for the first time was characterized by contrasting emotions, with some parents feeling scared and others excited about the event.⁹

Admission of baby to NICU not only leads to distressing emotions of mothers but also to entire family members. These distressing emotions get precipitated in mothers’ mind because of unexpected event happened to them. This finding is consistent with the study conducted in Jordan which showed that parents with an infant in the NICU experience depression, anxiety, stress, and loss of control, and they

Table 2: Socio-demographic characteristics and obstetrics related information of respondents

Characteristics	Frequency (%)
Mean Age (SD)	26.44 ±5.59
Residence	
Rupandehi	4(44.44)
Kapilvastu	4(44.44)
Arghakanchi	1 (11.11)
Religion	
Hindu	9 (100)
Educational Status	
Illiterate	2 (22.22)
Literate	7(77.77)
Occupation	
Agriculture	2 (22.22)
Business	2 (22.22)
Homemaker	5 (55.56)
Economic Status	
Adequate for one year	4 (44.44)
Inadequate for one year	5 (55.56)
Types of Family	
Nuclear	1 (11.11)
Joint	8 (88.89)
Mode of Delivery	
Normal	7 (77.78)
Caesarean Section	2 (22.22)
Completed months of delivery	
7 months	2 (22.22)
8months	7 (77.78)

vacillate between feelings of hope and helplessness.¹⁰

The mothers expressed various emotions depending on the situation they were faced with. They exhibited negative emotions like anxiety, guilty and feared about the unpredictable life span of baby's which were influenced by their thoughts during the period of labour and admission of their babies. This finding of study is supported by study conducted in United Arab Emirates which showed that mothers were anxious about the survival of their premature babies admitted to NICU.¹¹

Mothers including their family members were happy by the birth of baby regardless of baby's admission in NICU and NICU expenses. Although, mothers faced financial difficulty because of costly treatment, they were happy to manage this all as there is a hope for baby's good health This finding of study is consistent with the study conducted in Canada which showed that family members faced financial stress by the admission of newborn in NICU, transportation, childcare costs for older children and to purchasing special equipment. Some mothers borrowed money to help them cover these extra expenses, while others received money from family and support groups.¹²

Mother described breastfeeding as a way to become close with their babies which strengthen bond between them. This

finding of study is consisted with study conducted in Ghana which showed that the period of breastfeeding was both rewarding and challenging. Mothers cherished the process of breast-feeding because it promoted mother-baby interaction whereas some of mother experienced pain while expressing the breast milk.¹³

Mothers and their family members expressed feelings of satisfaction with care provided for baby. Further, they narrated that they were happy with the care provided to their babies while the baby was in NICU. These findings of study is similar with study conducted in Ghana where mothers reported that they were satisfied with the availability of staff and care given to their babies by the health workers and indicated that though they were always informed of procedures to be carried out on their babies.¹³

Mothers adopted various coping strategies such as devotion to god, positive coping and attachment with family to overcome their psychological problems. This finding of the study is consistent with the study conducted in Cape Town which showed that mothers of preterm babies cope differently after delivery that includes praying, attachment to baby, acceptance of the situation and support they receive from significant others.¹⁴

CONCLUSION

On the basis of major findings, it is concluded that experiences of mother was varied and contradictory as they were not prepared for preterm delivery. In addition, mothers were emotionally affected about unpredicted lifespan and survival of baby. The family members were supportive and helped mothers with the cost associated with ICU expenses. So, in order to cope up with these events, mother adopted various coping strategies such as positive coping, attachment with family and devotion to god.

NICU is the place where there is first mother-child encounter and where all early dynamics of their relationship begin. So, it is recommended to provide close attention and guidance to the mothers by health care providers during their child's treatment. Some additional research on mothers of preterm infants is required to cover the larger geographical settings in order to address the limitations of this study.

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