



A Qualitative Study To Explore The Experiences Of Mothers Of Preterm Babies Admitted In NICUs Of Selected Hospitals Of Udaipur.

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Abstract

“Stress” refers to the consequences of any event that poses a major risk to homeostasis. A stressor is an actual or perceived threat to an organism, and a stress reaction is an organism's way of reacting to the stressor. The birth of a preterm baby presents a unique challenge for a mother, a task for which she is unprepared. Therefore, present study aims to explore the experiences of mothers of preterm babies admitted in NICUs. Qualitative phenomenological research plan was utilized to perform the study. 13 mothers whose pre term babies admitted in NICU were chosen by using purposive sampling technique from selected hospitals of Udaipur. The tools for the present study included socio-demographic variables and semi-structured questionnaire related to the experiences of mothers. In-depth interview was conducted and voice was recorded using mobile phone recorder with semi structured.

Result: On the basis of thematic analysis of the qualitative data collected from 13 participants, total six themes emerged including Emotional Responses to Preterm Birth and NICU Admission, Maternal participation in Baby's Care, Family and Professional support, Knowledge and Confidence in Baby Care, Supposed obstacles and challenges and Optimism about baby's recovery. The themes highlight mothers' emotional journey after preterm birth, including fear, sadness, and hope, shaped by the NICU environment. They reflect varying levels of involvement in baby care, influenced by hospital policies and emotional readiness. Support from family and health professionals played a key role in reducing stress and building trust. Mothers also faced emotional and practical challenges but remained hopeful about their baby's recovery.

Conclusion: Study leads to the following conclusion that mothers of infants admitted to the NICU face a very stressful event and this information will help nurses to develop interventions that promote family-centered care and developmentally supportive care.

Keywords: Explore, experiences, pre term, mothers, NICU.

Introduction

Premature birth is an important public health issue around the world due to associated neonatal (first 28 days of life) mortality and short- and long-term morbidity and infirmity in future life. Prematurity is defined by World Health Organization (WHO) as babies born alive before 37 completed weeks of pregnancy or fewer than 259 days of pregnancy since the first day of a woman's last menstrual period (LMP).¹ The complications of preterm birth arise from immature organ systems that are not yet prepared to support life in the extra-uterine environment. The risk of acute neonatal illness decreases with gestational age, reflecting the fragility and immaturity of the brain, lungs, immune system, kidneys, skin, eyes, and gastrointestinal system.² "Stress" refers to the consequences of any event that poses a major risk to homeostasis. A stressor is an actual or perceived threat to an organism, and a stress reaction is an organism's way of reacting to the stressor.³ Stress on the birth of preterm infants produces physical and psychological stressors for both the newborn and the mothers. The need for intensive care treatments, feeding difficulties and low birth weight are among the physical challenges for preterm infants. These physical problems for the newborn often lead to psychological impacts on the health of the mothers as well.⁴

The relationship between stress and disease is now well established, but was not always recognized. The word 'stress' is used in physics to refer to the interaction between a force and the resistance to counter that force, and it was Hans Selye who first incorporated this term into the medical lexicon to describe the "nonspecific response of the body to any demand".⁵ The birth of a preterm baby presents a unique challenge for a mother, a task for which she is unprepared. Preterm babies have exceptional circumstances that require heightened surveillance, timeless dedication, constant education, and garnering enormous support from one's family and external network.⁶

Akbar S et al (2024) found that the majority of the participants (92%, n=184) were categorised as having high perceived stress and 8% (n=16) of the mothers fell into the category of moderate stress.⁷ Mothers of preterm babies in the NICU experience significant emotional distress and face numerous challenges. Comprehensive support programs that address financial, emotional and practical needs are essential to improve outcomes for both mothers and their preterm babies. Three themes emerged namely, mothers' emotional experience, challenges encountered at the NICU and coping strategies.⁸

A qualitative study conducted to explore the lived experiences of mothers with preterm babies admitted to NICU revealed six themes on the experiences of mothers of preterm babies in NICU: constant worry and uncertainty about the survival of their babies, baby feeding challenges, worries of discharge, communication gaps between mothers and nurses.⁹ **Acharya S et al (2021)** also discovered 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.¹⁰

Statement of the problem

"A study to explore the experiences of mothers of preterm babies admitted in NICUs of selected hospitals of Udaipur."

Objectives

1. To gain deeper understanding of the fears, feelings and concern of mothers of preterm baby.

Materials and Method

The current study employed a qualitative methodology and a phenomenological qualitative research design. 13 mothers whose pre term babies admitted in NICU were chosen by using purposive sampling technique from selected hospitals of Udaipur, Rajasthan. The tools for the present study included socio-demographic variables and semi-structured questionnaire related to the experiences of mothers whose babies are admitted in NICU to explore their lived experiences during that time. The data were analysed and theme generated using qualitative content analysis. In-depth interview was conducted and voice was recorded using mobile phone recorder with semi structured. Period of data collection was from May 2024 to April 2025. Prior to tool administration all

subjects were explained about the purpose, nature and outcome of study. Participants provided their informed permission.

Results

The data given in **Table 1** shows that majority of mothers (53.85%) were in the age group of 26-30 years, (38.46%) had secondary school education, 61.55% mothers were homemaker, (30.77%) mothers had 20001 to 30000 Rs monthly family income, 84.62% mothers were Hindus, 46.15% mothers belongs to extended family, 53.85% mothers marital duration was between 6-10 years, 76.95% mothers were having 1 child, 84.62% mothers had previous H/O pre term delivery and similar proportion 38.46% mothers were living in urban areas and rural areas.

Table1. Distribution of subjects as per demographic variables (N=13)

S. No.	Demographic Variables	Frequency (f)	Percentage (%)
1.	Age (in years)		
a)	Below 25 years	01	7.69%
b)	26-30 years	07	53.85%
c)	31-35 years	05	38.46%
d)	More than 35 years	00	00
2.	Educational status		
a)	Never went to school	02	15.38%
b)	Primary school	02	15.38%
c)	Secondary school	05	38.46%
d)	Graduation and more	04	30.77%
3.	Occupation		
a)	Private Job	01	7.69%
b)	Govt. Job	02	15.38%
c)	Business	02	15.38%
d)	House maker	08	61.55%
4.	Monthly family income		
a)	< 10000 Rs.	01	7.69%
b)	10001-20000 Rs.	04	30.77%
c)	20001-30001 Rs.	04	30.77%
d)	30001 Rs. and more	04	30.77%
5.	Religion		
a)	Hindu	11	84.62%
b)	Muslim	02	15.38%
c)	Christian	00	00
d)	Others	00	00
6.	Type of the family		
a)	Nuclear family	03	23.08%
b)	Joint family	04	30.77%
c)	Extended family	06	46.15%
7.	Marital Duration		
a)	Less Than 5 years	04	30.77%
b)	6-10 years	07	53.85%
c)	11-15 Years	02	15.38%
d)	More than 15 years	00	00
8.	Number of children		
a)	1	10	76.95%
b)	2	02	15.38%

c)	3	01	7.69%
d)	4 & more	00	00
9.	Previous H/O pre term delivery		
a)	Yes	02	15.38%
b)	No	11	84.62%
10.	Area of living		
a)	Rural	05	38.46%
b)	Urban	05	38.46%
c)	Semi-urban	03	23.08%

Emergед Themes

On the basis of thematic analysis of the qualitative data collected from 13 participants, total six themes emerged.

Theme 1. Emotional Responses to Preterm Birth and NICU Admission:

This theme captures the intense and often conflicting emotional experiences of mothers upon giving birth to a preterm infant and witnessing their baby in the Neonatal Intensive Care Unit (NICU)

Subtheme 1.1 Initial Emotional Reactions

This subtheme captures the raw and immediate emotional responses that mothers experience upon encountering their preterm baby for the first time—typically in a neonatal intensive care unit (NICU)

Code 1- Fear of loss

This code expresses a powerful fear of loss as the mother anticipates the worst outcome. According to a participant

“I felt the baby wouldn’t survive.” – Participant-1

Code 2- Anxiety and sadness

Demonstrates how emotionally overwhelming the experience was, potentially due to the sight of the baby or feelings of helplessness. As per in the words of participant

“I cried a lot.” – Participant-8

Code 3- Mixed Joy

It represents a moment of joy, which can coexist with fear—highlighting the emotional complexity of the situation. Joy and relief at finally seeing or holding the baby, regardless of the medical state

“I felt very happy.” – Participant-11

Subtheme 1.2: Fear of Machines and NICU Environment

The neonatal intensive care unit (NICU) is designed to sustain the fragile lives of preterm infants, but to a mother—especially one seeing her baby surrounded by wires, tubes, and beeping monitors—it can appear alien, overwhelming, and frightening

Code: Stress due to tubes, alarms, machines

The NICU can be an intimidating environment for mothers unfamiliar with medical technology. The sight and sounds of machines cause emotional distress. In the own words of a participant

“Seeing all those machines scared me.” – Participant-6

Subtheme 1.3: Worry About Baby’s Condition

One of the most profound emotional burdens faced by mothers of preterm infants is the uncertainty surrounding their child’s health status and future development

Code: Questions about survival, development

This code is about raw expression of fear that the baby might not live, reflecting the emotional fragility of the moment. A participant expressed her feelings in the words

“Will he survive?” – Participant-3

Theme 2: Maternal participation in babies care

This theme captures how mothers of preterm infants interacted with the NICU care process, both emotionally and practically.

Subtheme 2.1: Participation in NICU Care

This subtheme highlights how mothers experienced different levels of participation in the care of their preterm infants within the NICU setting.

Code 1- Feeding & Kangaroo Mother Care

Shows that the mother is somewhat integrated into the care process, particularly in vital nurturing roles like breastfeeding, which also aids in bonding and milk production. A participant stated

“They call me to breastfeed.” – Participant-12

Code 2- Restricted accesses

Some participant expressed frustration and exclusion. Not being allowed to care for her infant indicates either medical barriers or institutional restrictions, which may lead to emotional distress. As per a participant

“No, they haven’t allowed me yet.” – Participant-1

Subtheme 2.2: Desire for Active Involvement

This subtheme captures the emotional yearning of mothers to be actively involved in their baby's care during the NICU stay, and the frustration they experience when that desire is unmet.

Code:- Frustration over not being allowed

The desire for active involvement is not just about physical care—it reflects love, responsibility, and a deep-rooted sense of protection. In the words of a participant

“I just want him to be with me.” – Participant-11

Theme 3: Family and Professional support

This theme explores the emotional and practical support that mothers of preterm infants receive during their child’s hospitalization

Subtheme 3.1 Family support

Mothers frequently acknowledged the essential support they received from family members—especially spouses and close relatives

Code: Emotional and logistical help from husband, parents

It highlights the role of spousal emotional stability, suggesting that a caring partner helps reduce stress and fear. In the words of a participant

“My husband is my biggest support.” – Participant-6

Subtheme 3. 2: Professional Support

Apart from families, healthcare providers—especially doctors and nurses—were also recognized as key figures in the mothers’ support systems

Code1- Doctors’ communication

It demonstrates trust and reassurance when medical information is clearly communicated, reducing fear and confusion.

“Doctors explain everything.” – Participant-13

Code 2: Nurses’ care

Points to the emotional comfort and practical guidance nurses provide, often acting as intermediaries between mothers and medical routines. A participant stated about nurses role and their helping nature with proper care

“Nurses are supportive.” – Participant-9

Theme 4: Knowledge and Confidence in Baby Care

This theme explores how mothers perceived their readiness and confidence in taking care of their preterm infant, especially as they prepared for discharge.

Subtheme 4.1: Post-Discharge Readiness

This subtheme captures the perceptions and expectations mothers have about caring for their preterm infants after discharge from the NICU.

Code 1: Confidence in self care abilities

Some mothers expressed full confidence in their ability to care for their child, indicating emotional preparedness and personal belief in their competence. A participant represented her confidence in her own words

“I’m 100% confident.” – Participant-1

Code 2: Reliance on elders/doctors

It reflects reliance on traditional knowledge or familial guidance, which may fill gaps left by formal training or inadequate education. In the words of a participant

“I’ll follow what my elders say.” – Participant-4

Subtheme 4.2 : Information Needs

Many mothers actively expressed a need for more information on how to care for their fragile infants.

Code: Desire for training, clarity on feeding and signs

Mothers often feel under-informed despite being emotionally invested. This gap in knowledge can generate anxiety and undermine post-discharge preparedness. As per wording of a participant

“I want more information.” – Participant-13

Theme 5: Supposed obstacles and challenges

This theme explores the practical, emotional, and psychological obstacles mothers faced during their baby’s NICU stay.

Subtheme 5.1: Physical Separation

Many mothers found it emotionally difficult to be separated from their baby, even though the NICU was necessary for the infant’s care.

Code: Emotional distress due to baby’s absence

Because of limited access and separation policies can intensify maternal stress, affecting emotional well-being during a critical bonding period. A participant stated that “He is away from me—that’s what troubles me.” – Participant-11

Subtheme 5.2 : Feelings of Helplessness or Guilt

Some mothers internalized their baby’s condition, experiencing guilt, self-blame, or a belief that they had somehow failed.

Code 1: Self-blame

It reveals self-directed blame, which may not be rooted in reality but still carries psychological weight. In the wording of a participant

“I feel I was a little careless.” – Participant-4

Code 2: anxiety over repeated issues

It suggests a sense of bad luck or personal failure, adding to emotional fatigue. A participant stated like “This keeps happening to me.” – Participant-6

Subtheme 5.3: Financial Concerns

This subtheme shows that even small inconveniences—when added to emotional and psychological strain—can burden mothers.

Code: Rarely cited, food arrangement issues only

It points to logistical issues that, while not extreme, add to the overall stress of the hospital experience. In the words of a participant

“Food is a bit of a problem.” – Participant-1

Theme 6: Optimism about baby’s recovery

This theme captures the emotional resilience and forward-looking mindset of mothers navigating the NICU journey. Despite their fears and hardships, many mothers held onto hope — both for the baby’s recovery and for the competence of the medical team.

Subtheme 6.1: Recovery and Future Concerns: Mothers frequently expressed hopeful thoughts about the baby’s improvement, but these were often accompanied by lingering anxiety about potential complications

Code: Optimism with underlying anxiety

These quotes reveal that while mothers maintain hope, it is often tinged with emotional vulnerability, highlighting the need for continuous emotional reassurance. In the words of a participant “I hope the baby recovers quickly.” – Participant-9

Subtheme 6.2: Trust in Medical Staff

A significant source of reassurance for mothers was the trust they placed in doctors and nurses. Despite limited understanding of medical details, mothers conveyed confidence in the expertise and intentions of the care team

Code: Satisfaction and hope placed in NICU team

Many participants indicated respect and appreciation for healthcare professionals. In the words of a participant “They’re doing a great job” – Participant-3

Discussion

In qualitative data analysis, total 10 socio-demographic variables were selected. As per age (53.85%) mothers were in the age group of 26-30 years, (38.46%) were in the age group of 31-35 years. With regard to education, (38.46%) mothers had secondary school education, (30.77%) mothers had graduation and more. 61.55% mothers were homemaker. Our findings supported by **Marly Veronoz et al (2017)¹¹** through their descriptive exploratory qualitative study. Majority of mothers were between 16-31 years of age, had incomplete secondary school level education.

On the basis of thematic analysis of the qualitative data collected from 13 participants, total six themes emerged Theme 1 “**Emotional Responses to Preterm Birth and NICU Admission**” captures mothers’ emotional turmoil after preterm birth, marked by fear, sadness, and mixed joy, intensified by the NICU’s overwhelming environment and concerns about the baby’s survival.

Theme 2 “**Maternal participation in Baby’s Care**” highlights mothers’ desire to participate in caregiving; while some were involved in feeding or KMC, others faced restrictions, leading to frustration and emotional disconnect.

Theme 3 “**Family and Professional support**” reflects the importance of emotional and practical support from family and empathetic communication from health professionals, which eased stress and built trust.

Theme 4 “**Knowledge and Confidence in Baby Care**” shows varying levels of mothers’ confidence in baby care post-discharge; some felt ready, while others relied on elders or doctors for guidance and information.

Theme 5 “**Supposed obstacles and challenges**” explores emotional and practical challenges, including separation from the baby, guilt, helplessness, and minor financial issues during the hospital stay.

Theme 6 “**Optimism about baby’s recovery**” reflects mothers’ optimism about recovery, hope for the baby’s future, and trust in the medical team, helping them cope with uncertainty and emotional stress.

Our study result also supported with the findings of a qualitative phenomenological study carried out by **Neelofar Islam et al (2024)¹²** to describe the experiences of mothers with premature babies admitted in NICU.

Their study also generated six themes related to knowledge gap, Emotional and psychological concerns, baby mother interaction, nutritional & monetary challenges and expectations of mothers from health care providers with interaction. **Daliri DB et al (2024)⁸** also conducted a descriptive phenomenological study to explore the psychosocial experiences of mothers of preterm babies admitted to the neonatal intensive care unit, three themes emerged from data analysis which were mothers’ emotional experience, challenges encountered at the NICU and coping strategies. **Gulshan S et al (2023)¹³** also generated three themes comprising mixed emotional feelings of the mothers; satisfaction about care and support from Health Care Professionals and mother-baby interaction in NICU in their study related to experiences of mothers of preterm babies when their baby is admitted in a tertiary care hospital.

Acharya S et al (2021)¹⁰ discovered six themes in their study regarding experiences of mothers having preterm infants admitted in NICU including 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.

Conclusion

Based on the findings of the qualitative study themes were emerged which leads to the following conclusion that mothers of infants admitted to the NICU face a very stressful event and this information will help nurses to develop interventions that promote family-centered care and developmentally supportive care.

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Conflict of Interest: There were no conflicts of interest when conducting the current study.

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