

## Original Research Article

DOI: <https://dx.doi.org/10.18203/2349-3291.ijcp20260096>

# Lived experiences of mothers caring for newborns in mother newborn care units: a phenomenological study on maternal bonding and perinatal mental health

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**Received:** 26 November 2025

**Revised:** 03 January 2026

**Accepted:** 15 January 2026

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## ABSTRACT

**Background:** The mother newborn care unit (MNCU) is a unit offering 24×7 Level II care dedicated for sick newborns and mothers within the same setting. It is crucial to understand the maternal experiences in such a setting, so present study aims to explore the experiences of the mothers whose babies are admitted in MNCU.

**Methods:** The experiences of postpartum mothers whose newborns were admitted to Safdarjung Hospital's MNCU were explored by using a qualitative phenomenological research design. Through a purposive sampling technique, 15 eligible postpartum mothers were selected. In-depth semi-structured interviews were conducted using demographic details, observational notes, including non-verbal cues. At least 3 follow-up interviews were conducted with mothers to further explore their experiences over time.

**Results:** Thematic analysis of in-depth interviews with mothers revealed 10 major themes, followed by detailed transcription, translation, systematic coding and the organization of data into meaningful categories and 21 subthemes. According to the study, major themes were positive psychological adaptation, strengthening through active participation, conducive institutional environment, enhanced health awareness, improved maternal satisfaction, decreased anxiety regarding newborn health and enhanced maternal-newborn bonding. Health awareness and psychological resilience of mothers were further improved by peer engagement and nursing assistance. However, challenges like postpartum fatigue and discomfort, decreased time with family as a result of strict visiting guidelines and concerns about newborn's health have been observed. Despite these concerns, mothers remained hopeful and emotionally resilient.

**Conclusions:** The findings highlight the positive psychological impacts of the MNCU model, particularly in enhancing bonding, mothers' emotional well-being, empowerment via active engagement and the adoption of improved coping mechanisms.

**Keywords:** Mother newborn care unit, Maternal experience, Phenomenological study, Small and sick newborns

## INTRODUCTION

The MNCU is a unit offering 24×7 Level II care dedicated for sick or low birth weight newborns with

postnatal care for mothers within the same setting. MNCU promotes continuous skin-to-skin contact and emotional bonding, which leads to better developmental outcomes than normal NICU settings, where mothers and

babies are usually separated during important early stages.<sup>1</sup> Before February 2024, in Safdarjung Hospital, the extramural neonates used to be admitted and managed in the paediatric wards with older children without dedicated place for newborns. In February 2024, Safdarjung Hospital operationalized 40 bedded level III MNCU for extramural sick neonates of all gestation and birth weight. Group I represent the data of babies before development of MNCU (May 2023 to January 2024) and Group II represent the data post development of MNCU (February 2024-Oct 2024).

In hospital mortality was 28.3% (515/1822) among infants in the Group I and 18.3% (370/1980) in the Group II. Breast feeding and Kangaroo mother Care rates significantly increased after operationalization of MNCU.<sup>2</sup>

The emotional toll of MNCU admission marked by anxiety, stress and feelings of helplessness along with practical difficulties such as navigating complex medical information and managing logistical issues, demands further exploration. Mothers often report feeling isolated and overwhelmed, with insufficient support systems to address their multifaceted needs.<sup>3</sup> Addressing these needs not only has the potential to enhance maternal well-being but also positively impacts family dynamics and infant outcomes. This study aims to fill a critical gap in the literature by providing a comprehensive view of the challenges experienced by mothers in the MNCU, thereby informing the development of more effective support systems and improving the overall MNCU experience for families.<sup>4,5</sup>

WHO recommendations (2015) on Interventions to Improve Preterm Birth Outcomes included guidance on KMC as a vital intervention for improving outcomes in preterm infants. WHO recommended to initiate KMC in newborns with birth weight less than 2000 g after initial stabilization. Cochrane review 2016, showed that when KMC initiated after stabilization, reduces neonatal mortality by 40%.<sup>6</sup> An MNCU a dedicated facility where sick and small newborns receive comprehensive care alongside their mothers 24/7.

The units are equipped with all the necessary facilities for newborn care and provision for postnatal care to mothers.<sup>1</sup> In the MNCU, newborns benefit from a safe and secure environment. Mothers and surrogates are trained in aseptic practices to minimize infection risks. Unlike conventional NICUs, where a single nurse may care for 8–10 neonates, each mother in MNCU provides care exclusively to her own baby. Subsequently, not only infection rates are lower in MNCU, but also sepsis related mortality is significantly lower in MNCU, compared to NICU.<sup>7</sup>

Presently no data available for experiences of mothers having newborns in MNCU. It is crucial to understand the maternal experience in such a setting in order to

enhance the maternal, newborn and perinatal mental health and to improve family-centered neonatal care. In order to gain a more profound insight into the challenges that mothers encounter while their infants are in a specialized neonatal care unit, this study focuses on the experiences of mothers whose babies are admitted to the MNCU at Safdarjung Hospital in Delhi. The research aims to shed light on how mothers perceive, navigate and cope with the physical, emotional, psychological, social and financial obstacles that emerge during this time.

By examining their perceptions and daily experiences within the MNCU, along with their interactions with medical staff, the study seeks to capture the intricacies of their lived experiences. This qualitative investigation contributes to a larger effort to enhance understanding of maternal perspectives in neonatal care environments and highlights the significance of acknowledging mothers' voices in developing supportive and responsive caregiving practices.

### **Problem statement**

A Qualitative study to explore the experiences of mothers whose babies are admitted in MNCU at Safdarjung Hospital, Delhi.

### **Objectives**

To explore the experiences of mothers whose babies are admitted to the MNCU at Safdarjung Hospital.

## **METHODS**

### **Study design**

The present study forms part of a broader academic effort to strengthen understanding of maternal experiences within neonatal intensive care environments. This component specifically sought to explore how postnatal mothers at Safdarjung Hospital, Delhi, experience the admission of their newborns to the MNCU.

A qualitative research approach was adopted, guided by a phenomenological design, to capture the depth and complexity of mothers' lived experiences. The study focused on eliciting detailed accounts of the emotional, physical, psychological, social and financial challenges encountered during their baby's hospitalization, as well as their interpretations of interactions with healthcare providers and the neonatal care environment.

### **Study setting**

The study was carried out at the MNCU of Safdarjung Hospital, Delhi, one of the largest public tertiary-care teaching hospitals in India. The MNCU provides specialized care for newborns requiring intensive medical management due to diverse neonatal complications. All

interviews were conducted within the hospital premises in a private room to ensure confidentiality and comfort.

### **Participants**

Participants included postnatal mothers whose newborns were currently admitted to the MNCU. Mothers were eligible if they had registered their present pregnancy at Safdarjung Hospital, were able to communicate in Hindi or English and consented to participate. Mothers diagnosed with psychological illnesses, those whose newborns had been admitted for less than 24 hours and mothers whose babies were delivered outside Safdarjung Hospital were excluded.

A total of 15 mothers were selected through purposive sampling, ensuring inclusion of participants able to provide rich, relevant and diverse insights into the phenomenon under study.

### **Operational definitions**

#### *Explore*

In this context, "explore" refers to employing qualitative strategies such as in-depth interviews to gather comprehensive insights into mothers' perceptions, emotions, behaviours and subjective interpretations related to their baby's MNCU admission.

#### *Experiences of mothers*

This denotes the spectrum of physical, emotional, psychological, social and financial concerns encountered by mothers during their newborn's hospitalization.

#### *Babies admitted in MNCU*

Refers to newborns receiving intensive medical care within the MNCU due to various health conditions or complications.

#### *Assumptions*

The study was grounded in three key assumptions. Mothers whose babies are admitted to the MNCU undergo substantial emotional, psychological, physical, social and financial challenges. Participating mothers are capable of articulating and reflecting upon their experiences. A qualitative phenomenological approach is well-suited to exploring and understanding these lived experiences.

#### *Sampling and sample size*

Purposive sampling was used to recruit 15 postnatal mothers meeting the inclusion criteria. This sampling method enabled the selection of participants who could meaningfully contribute to understanding the phenomenon under investigation.

### **Data collection**

Data were collected through in-depth, semi-structured interviews conducted in Hindi or English according to participant preference. Ethical approval (IEC/VMMC/SJH/CERT/2025-June/62) was obtained from the hospital's ethics committee and administrative clearance was secured prior to the commencement of fieldwork started effectively from June-2025 to November-2025.

Eligible mothers were approached in the postnatal wards, where the researcher introduced herself, explained the purpose of the study and provided an information sheet for review. Written informed consent was obtained from all participants. Each interview was conducted in a private room within the hospital to ensure confidentiality and comfort.

Interviews began with an open-ended question inviting mothers to narrate their experiences surrounding their baby's admission. Additional prompts from a semi-structured interview guide were used to explore specific areas as needed. Interviews were audio-recorded with permission and a field diary was maintained to capture verbal expressions, emotional cues and notable non-verbal behaviours.

The study utilized two primary tools for data collection. A semi-structured questionnaire was employed to gather socio-demographic information from participants through interviews and review of relevant hospital records. To explore mothers' lived experiences in depth, a semi-structured interview guide was used, enabling the researcher to conduct comprehensive, in-depth interviews that were audio-recorded with participants' consent.

### **Data analysis**

A thematic analysis was undertaken to interpret the data. Interviews were transcribed verbatim and those conducted in Hindi were translated into English. Transcripts were read and re-read to gain familiarity and identify significant statements.

Coding was carried out by systematically organizing meaningful segments of data. Codes with conceptual similarities were grouped, reviewed and refined. Through an iterative process, these clusters were synthesized into major themes and subthemes reflecting mothers' experiences of their baby's MNCU admission. Field notes and non-verbal observations were also integrated to enrich interpretation.

## **RESULTS**

Thematic analysis of in-depth interviews with 15 mothers admitted in the MNCU revealed ten major themes. Each theme captures a specific dimension of the mothers' lived

experiences. Verbatim excerpts from participants (Mother 1 to Mother 15) are provided to illustrate each theme.

### **Improved maternal satisfaction**

Mothers expressed a strong sense of emotional fulfillment and happiness from being with their newborns around the clock. "Being with my baby 24×7 makes me feel complete. I feel truly happy and content seeing her beside me all the time." (Mother 3) "Caring for my newborn with my own hands gives me so much satisfaction. It feels like I'm doing something important." (Mother 7)

### **Decreased anxiety regarding newborn health**

Many mothers reported that their constant presence with the baby reduced their fear and worry regarding the infant's prognosis.

"When I see my baby improving day by day, I feel relaxed. I don't have to wait for updates from the staff - I can see for myself." (Mother 1)

"Staying close to my baby reduces my fears. I know how she's doing every moment." (Mother 5)

### **Enhanced maternal-newborn bonding**

Continuous proximity to the baby promoted early emotional attachment and opportunities for breastfeeding.

"Breastfeeding became easier because I'm always near her. We've built a strong connection." (Mother 6)

"Holding her, seeing her and touching her anytime I want makes me feel like a real mother." (Mother 10)

### **Strengthening through active participation**

Participants described increased confidence and competence in newborn care due to their active involvement.

"Initially I was scared, but now I know how to change diapers, feed her and handle her. I feel more confident now." (Mother 2) "Being allowed to take care of my baby has made me feel capable and strong." (Mother 11)

### **Conducive institutional environment**

Mothers appreciated guidance from nursing staff and emotional support from other mothers in the unit.

"The nurses are very helpful. They guide me with everything—feeding, hygiene, even calming techniques." (Mother 8) "Talking with other mothers here helps. We share the same emotions and challenges." (Mother 12)

### **Enhanced knowledge and health awareness**

Hands-on caregiving and supervision by healthcare providers enhanced maternal understanding of neonatal care.

"I've learned so much about baby care here, especially how to keep her clean and recognize signs if something's wrong." (Mother 13)

"I now understand why certain practices are important for my baby's health." (Mother 4)

### **Physical discomfort and postnatal fatigue**

Despite emotional satisfaction, some mothers reported ongoing physical pain and fatigue due to the demands of caregiving.

"Sometimes it's hard to manage pain and tiredness, especially when I'm awake most of the night with my baby." (Mother 14)

"Though I'm happy to be here, my body still hurts from delivery and I hardly get time to rest." (Mother 9)

### **Emotional response to hospital policies**

Strict visitor policies, while essential for infection control, led to feelings of isolation and emotional distress.

"Not being able to meet my husband or family for long is emotionally difficult, especially in the evenings." (Mother 15)

"Sometimes I feel lonely because of the strict visitor rules, even though I know it's for safety." (Mother 6)

### **Positive psychological adaptation**

Over time, most mothers experienced emotional stabilization and developed a sense of peace and confidence. "Earlier I was very anxious, but now I feel calm and in control because I'm with my baby all the time." (Mother 2) "Being here has given me peace of mind. I feel emotionally better and more stable." (Mother 11)

### **Concerns for the newborn's health**

Despite the immediate satisfaction, mothers continued to worry about their child's future development and health. "Even though she looks fine now, I still worry whether she'll grow up healthy and reach her milestones." (Mother 5)

"I often think about her future will she have any long-term issues because of this early complication?" (Mother 14).

**Table 1: Findings related to demographic data of the sample's frequency and percentage distribution of participants characteristics.**

S. no.	Characteristics	Frequency	%
1	<b>Age (in years)</b>		
	19-21	2	13.33
	22-24	2	13.33
	25-27	5	33.34
	28-30	3	20
2	<b>Area of residence</b>		
	Rural	10	66.66
	Urban	5	33.34
3	<b>Educational status</b>		
	Illiterate	1	6.67
	Primary school	3	20
	High school	4	26.66
	Intermediate	5	33.34
4	<b>Occupation</b>		
	Home maker	9	60
	Labour	3	20
	Private job	1	6.67
	Factory worker	2	13.33
5	<b>Religion</b>		
	Hindu	10	66.66
	Muslim	5	33.34
	Christian	0	0
	Sikh	0	0
6.	<b>Monthly family income (in Rs) (modified kuppuswamy scale)</b>		
	31,978-53,360	4	26.66
	10,703-31,977	11	73.34
	<10,702	0	0
7	<b>Type of family</b>		
	Nuclear family	3	20
	Joint family	9	60
	Extended family	3	20
8	<b>Number of children at home</b>		
	0	3	20
	1	7	46.66
	2	5	33.34
9	<b>Mode of delivery</b>		
	Normal delivery	10	66.66
	LSCS	5	33.34
10	<b>Sex of admitted baby</b>		
	Girl	9	60
	Boy	6	40
11	<b>Duration of MNCU admission</b>		
	2-4 days	3	20
	5-7 days	3	20
	8-10 days	5	33.34
	>10 days	4	26.66

**Table 2: Themes and sub-themes on mothers' experience whose babies are admitted in MNCU.**

S. no.	Themes	Sub-themes
1	<b>Improved maternal satisfaction</b>	Joy of being physically close to the newborn, fulfillment in actively caring for the baby
2	<b>Decreased anxiety regarding newborn health</b>	Continuous observation alleviating fear, greater reassurance about baby's prognosis
3	<b>Enhanced maternal-newborn bonding</b>	Increased emotional attachment through 24x7 proximity, early initiation and continuation of breastfeeding
4	<b>Strengthening through active participation</b>	Improved confidence in newborn care, developed sense of maternal competence and responsibility
5	<b>Conducive institutional environment</b>	Assistance and encouragement from healthcare staff, informal peer support from other mothers
6	<b>Enhanced knowledge and health awareness</b>	Gaining practical skills in newborn care, learning hygiene practices and early signs of complications
7	<b>Physical discomfort and postnatal fatigue</b>	Experiencing pain and fatigue after childbirth, limited opportunities for rest due to round-the-clock caregiving
8	<b>Emotional response to hospital policies</b>	Feelings of isolation due to strict visitor restrictions, limited family support during hospital stay
9	<b>Positive psychological adaptation</b>	Enhanced emotional stability, reduced sense of helplessness and greater peace of mind
10	<b>Concerns for the newborn's health</b>	Worries about future growth and development, fear of delayed milestones or complications, concerns about future independence and quality of life

## DISCUSSION

In this qualitative study, we looked at the experiences of mothers who stayed in MNCUs with their infants, focusing on the emotional, physical and psychosocial dimensions of their lives. Enhanced maternal satisfaction emerged as a significant satisfaction as a result of maternal physical proximity to infants. Joy and affective fulfillment expressed by mothers who were able to stay with their babies attests to the emotional bond. This continuous presence reduces anxiety and fear pertaining to the newborn's health as mothers are benefited by monitoring the child's condition personally and receiving real-time reassurance, thus, minimizing reliance on caregivers. This proximity enables mothers to experience pleasure in interacting with their infants, develop a sense of competence and feel more secure in their maternal role.<sup>8,9</sup> Strengthened maternal-infant bonding also emerged as a major theme in this study.

Different from NICU settings where mothers are separated from their babies, the MNCU model allows mothers to breastfeed, engage in skin-to-skin contact and bond with their infants. Such bonding is important as early maternal-infant interaction is linked to better neonatal health as well as the mental health of the mother. Enhanced bonding is linked to improved maternal mental health and positive infant social-emotional development.<sup>10-12</sup> A major finding of this study was the enhanced maternal satisfaction experienced by mothers due to the uninterrupted physical proximity with their infants. Mothers expressed joy and emotional

fulfillment in being able to stay with and care for their babies. This continuous presence appeared to reduce anxiety and fear related to the newborn's health, as mothers were able to personally monitor their child's condition and receive real-time reassurance, minimizing dependence on healthcare providers for updates. Studies show that mothers in zero-separation or family-integrated care models experience less stress and depressive symptoms compared to those separated from their infants.<sup>13-15</sup> Closely linked to this was the theme of strengthened maternal-infant bonding. Unlike traditional NICU settings where mothers are often separated from their babies, the MNCU model facilitated early and uninterrupted breastfeeding, frequent skin-to-skin contact and emotional connectedness. These bonding opportunities are critical, as early maternal-infant interaction has been associated with improved neonatal outcomes and maternal mental health. Studies show that this continuous presence is strongly associated with improved mother-infant bonding, greater maternal satisfaction and emotional fulfillment.<sup>16-18</sup>

Moreover, mothers reported a sense of empowerment through active involvement in their infant's care. Engaging in daily caregiving routines improved their confidence, enhanced parenting skills and gave them a sense of control. This aligns with the concept of "maternal role attainment," where caregiving experience fosters a deeper identification with the maternal role. Similarly, various studies elaborate active participation in care such as feeding, kangaroo care and learning to interpret infant cues can foster bonding, self-efficacy and

emotional comfort, reducing feelings of helplessness.<sup>19-21</sup> As a key enabler, the supportive institutional environment, particularly the role of nurses, emerged. The nurses provided not only technical guidance, but also emotional support and empathy, whereas mothers shared an understanding and empathy space among themselves.

Nurses in neonatal care units are consistently identified as pivotal in supporting mothers, not only through technical instruction but also by offering empathy, reassurance and individualized emotional support. Their actions such as active listening, clear communication and encouragement help mothers gain confidence in infant care and reduce stress and anxiety.<sup>22,23</sup> Moreover, the MNCU also served as a learning environment where mothers were able to acquire practical knowledge about neonatal hygiene, feeding techniques and early signs of complications.<sup>9,11</sup> Although these encouraging outcomes, several mothers reported experiencing physical discomfort and postpartum exhaustion, suggesting that even under the MNCU paradigm, self-care support and rest are essential. The strict visitor policy, although essential for infection control, contributed to emotional strain, particularly feelings of isolation and a lack of extended family support. Mothers describe emotional strain due to limited social contact, increased vulnerability and a heightened dependence on healthcare staff for emotional support.<sup>24-26</sup> A majority of mothers demonstrated positive psychological adaptation with time, moving from initial fear and stress to emotional stability and satisfaction. Nevertheless, concerns about the child's future health persisted, particularly when babies had low birth weights or medical complications. Several mothers expressed concerns about developmental delays, chronic illness and the baby's future independence, emphasizing the need for continued counselling.<sup>8,12,13</sup> Overall, the MNCU environment was found to be highly beneficial in promoting maternal involvement, emotional well-being and early caregiving skills among mothers. However, a balance between maternal caregiving responsibilities and physical recovery must be maintained. In the future, structured rest periods, psychoeducation and family support mechanisms will be necessary to optimize outcomes for both mothers and newborns.

### Limitations

The study's limitations include its focus on mothers' experiences caring for their newborns which may not encompass all conditions and the limited generalizability due to the sample being drawn from a single centre in Mother newborn care unit, New Delhi. Longitudinal studies and comparative studies could provide more comprehensive insights.

### CONCLUSION

The MNCU is a dedicated unit for sick or small newborns with postnatal mothers. Present study aims to explore the experiences of the mothers whose babies are admitted in

MNCU. This phenomenological qualitative study explored 15 mothers by In-depth semi-structured interviews. 10 Major themes and 21 subthemes of maternal experiences were identified as positive psychological adaptation, strengthening through active participation, conducive institutional environment, enhanced health awareness, improved maternal satisfaction, decreased anxiety regarding newborn health and improved maternal-newborn bonding.

However, challenges like postpartum fatigue, decreased time with family as a result of visiting guidelines and persistent concerns about newborn's health have been observed. The results highlight how important it is to incorporate perinatal mental health assistance into the setting of care for mothers and newborns which can further promote early bonding & maternal empowerment for holistic maternal-neonatal outcomes.

### Recommendations

Further researches can be carried out considering factors affecting maternal psycho social experiences i.e., condition of sick neonates, days of hospitalization, previous experiences of health system, other family members engagement and support. Despite these limitations, the researchers maintained a thorough reviewing, provided rich description and engaged in peer debriefing.

*Funding: No funding sources*

*Conflict of interest: None declared*

*Ethical approval: The study was approved by the Institutional Ethics Committee*

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**Cite this article as:** Verma B, Arya S, Gupta R, Shriyan R, Upreti K, Verma S. Lived experiences of mothers caring for newborns in mother newborn care units: a phenomenological study on maternal bonding and perinatal mental health. *Int J Contemp Pediatr* 2026;13:246-53.