

Maternal Experiences of Caring for Preterm Infants at Home After Hospital Discharge: A Qualitative Descriptive Study

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Abstract: Caring for preterm infants at home following hospital discharge presents distinct challenges for mothers. Existing research provides limited insight into how mothers provide care for their preterm infants in the home setting post-discharge. This qualitative descriptive study explored maternal experiences in preterm infant care after discharge from a tertiary care hospital in Bangkok, Thailand. Using purposive sampling, eight mothers of preterm infants discharged within the past month were recruited. Semi-structured interviews were conducted to capture their experiences, and thematic analysis was used to uncover recurring patterns and insights.

The findings revealed three overarching themes: maternal fulfillment with infants' growth, receiving support to strengthen maternal role, and challenges in accessing primary health care after discharge. Mothers expressed a sense of fulfillment through their role in fostering their infants' growth and development, which was reinforced by observing milestones such as weight gain and improved feeding. During this period, mothers encountered numerous challenges, including managing their infants' health concerns and balancing multiple responsibilities; support from healthcare professionals, family members, and peers proved pivotal in equipping them with the necessary skills and confidence for caregiving. Additionally, barriers to accessing primary healthcare, including distance obstacles and the limited availability of specialized preterm care, were identified. These results underscore the importance of nursing interventions that address caregiving mothers' emotional and practical needs. Nurses could play a critical role in discharge planning by providing tailored preterm infant care education, facilitating family involvement, and ensuring continuity of care through follow-up services.

Keywords: Family support, Maternal fulfillment, Mothers, Preterm infant care, Qualitative description

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Introduction

The global incidence of preterm birth remains a significant public health concern despite the World Health Organization's efforts to improve outcomes through enhanced preterm birth guidelines and postnatal care since 2011.¹ While a marginal decrease in preterm births was observed between 2010 and 2020, from 13.8 to 13.4 million,² developing countries, particularly in Asia and Sub-Saharan Africa, continue to bear a disproportionate burden of incidence and associated mortality.^{2,3} Southern Asia, in particular, endures the most pronounced impact of preterm birth incidence and mortality, with approximately 46.8 cases per 100,000 population for incidence and 233.4 deaths per 1,000 live births in 2019. Western Sub-Saharan Africa follows with substantial rates of 21.5 per 100,000 population and 141.9 per 1,000 live births, respectively.³ A retrospective study conducted in Egypt indicated that preterm infants constituted a significant 49.4% of neonatal admissions, accompanied by a concerning mortality rate of 48.1%.⁴ Conversely, in Northeast Thailand, the preterm birth rate was 10.8% among all mothers⁵ and 1.9% among teenage mothers, with a mortality rate of 1.7%.⁶ These adverse outcomes are primarily due to severe health complications commonly seen in preterm infants, including respiratory distress, poor oral intake, congenital anomalies, and a heightened susceptibility to infections.^{4,6} Consequently, preterm infants often necessitate admission to a neonatal intensive care unit (NICU), where they receive specialized, technologically advanced care to support their adaptation to extrauterine life and increase their survival prospects.⁴

The NICU environment is a critical setting for families, especially mothers, who undergo a period of profound emotional adjustment.⁷ The unexpected birth of a preterm infant is a highly stressful event that can significantly impact parents' emotions and perceptions of their infants' health.⁸ Mothers often experience heightened anxiety, stress, fear, and depression when physically separated from their infants and observing

them undergo medical procedures.⁷⁻¹¹ The disruption of immediate maternal–infant bonding, coupled with concerns about the infants' safety and the fear of infant loss, underscores the need for comprehensive emotional and psychological support for mothers throughout their infants' hospitalization.⁷⁻¹²

The transition from the NICU to the home setting constitutes a particularly vulnerable phase for both the infant and their family. Effective discharge preparation is vital, as it helps mothers gain the knowledge and emotional support needed to manage the transition. Discharge planning should encompass tailored education on preterm infant care, including feeding techniques, recognizing health warning signs, establishing sleep routines, enhancing caregiving skills and confidence, and supporting home visitation.^{9,13-15} However, evidence suggests that families of preterm infants frequently receive suboptimal discharge planning, consequently elevating the risk of readmission within the initial 30-day post-discharge period.¹⁵ A large-scale retrospective study involving approximately three million infants revealed that preterm infants were 2.3 times more likely to be readmitted than full-term infants.¹⁶ The predominant factors contributing to readmission included diarrhea and vomiting, infections, and respiratory complications, all of which could have been mitigated through proper preparation and robust support systems.¹⁷

To ensure the seamless continuity of care, it is imperative to gain deeper insights into mothers' experiences as primary caregivers in the home setting following hospital discharge. Previous studies have indicated that parents often worry about their capacity to provide adequate care for their infants in the absence of continuous healthcare professional oversight and feel stressed when their child requires a feeding tube before discharge.^{9,18,19} They also express a need for adequate knowledge of potential equipment-related issues during the transition to home and for sustained professional support to facilitate their adaptation to the demands of home-based caregiving.^{9,18-20} Existing

research has predominantly focused on the NICU experience, with numerous studies examining parents' challenges while their infant is hospitalized.¹⁰⁻¹³ Comparatively fewer studies have explored the challenges parents face in caring for their preterm infants at home. Mothers face numerous challenges in managing home-based caregiving, often exacerbated by a lack of professional guidance and emotional support.^{9,18,20} Furthermore, a Thai study investigated the lived experiences of mothers caring for preterm infants with low birth weight at home.²¹ However, research is limited that specifically explores experiences of mothers regarding emotional, practical, and systemic support when caring for preterm infants in the home setting after discharge. This understanding is crucial for developing effective discharge planning and post-discharge support systems, ultimately fostering improved continuity of care and enhancing the holistic well-being of mothers and their preterm infants.

Review of Literature

Preterm birth is inextricably linked to both immediate and protracted sequelae stemming from the immaturity of organ systems, limiting the capacity to survive in extrauterine life. This unexpected experience is particularly challenging for families, especially mothers.^{7,8} Preterm infants require intensive care to manage complications such as respiratory distress, feeding difficulties, and an increased susceptibility to infections resulting from their physiological immaturity.^{4,17} The NICU experience is frequently characterized by uncertainty and heightened emotional distress, with mothers being especially vulnerable to anxiety and concerns about their infants' survival and long-term health.⁷⁻¹¹ The stressors in this environment can lead to sleep deprivation, fear, and even postpartum depression,^{7-11,18,20} underscoring the importance of providing emotional and psychological support to mothers during this period.^{8-10,22-23}

Several studies have indicated that parents require the assistance of healthcare professionals to support their infants' recovery, and they often express fear about providing care due to limited knowledge, which they worry might place their infants at risk during hospitalization.^{9-12,19} Therefore, enhancing parents' understanding of preterm care, empowering parents to engage in caregiving, and reinforcing their caregiving abilities are essential for ensuring a smooth transition from hospital to home.^{13-15,18-19,24} This approach reduces hospital readmission rates and enhances readiness for home care.^{13,15,24} However, post-discharge care for preterm infants and their families necessitates specialized discharge planning. This process is distinct from that of full-term infants, as preterm infants are typically smaller and more prone to feeding difficulties.^{25,26} Unfortunately, many parents receive short notice about their infant's discharge due to the rapid transfer of preterm infants to the nursery or the influx of new infants' admission in the NICU. This lack of preparation can hinder the development of a comprehensive discharge plan, leading to feelings of unpreparedness to care for their infants at home.^{9,18,20,26} Consequently, many preterm infants are re-hospitalized within thirty days post-discharge.¹⁵ Therefore, structured discharge planning is crucial for ensuring the optimal well-being of both maternal and infant health.

Mothers of preterm infants have consistently reported a diverse spectrum of challenges encountered in the home care context, including physical exhaustion due to round-the-clock caregiving, emotional struggles characterized by self-doubt, and a fear of making mistakes.^{18-20,25} Common caregiving strategies include maintaining strict feeding schedules, ensuring appropriate hygiene, monitoring for signs of complications, creating a sterile environment to prevent infections, and seeking follow-up care from outpatient specialists to monitor preterm infants' growth and development.^{18-19,21,27-28} Despite their best efforts, many mothers encounter barriers such as feeding difficulties, social isolation,

financial strain, and less confidence to manage infants' health risks.^{9,18,20,27}

Although research has advanced our comprehension of maternal needs in preterm infant care, substantive knowledge gaps persist. A study has advocated for continuous care transitioning from the neonatal unit to the home, emphasizing the necessity of an initial family sociocultural assessment to facilitate collaborative care plans tailored to individual preterm infant needs.²⁸ However, a significant proportion of current research inadequately captures the realities of the challenges mothers confront when providing care for preterm infants, particularly in resource-limited settings and within the Thai context, hence this study.

Study Aim

This study aimed to explore maternal experiences of preterm infant care following hospital discharge in Thailand.

Methods

Design: This paper presents findings from a qualitative descriptive study,²⁹ conducted in the post-discharge phase of a mixed-method research project, exploring mothers' experiences after hospital discharge with their preterm infants. A qualitative research methodology was employed to explore a holistic understanding of maternal perspectives, facilitating the development of culturally sensitive and effective interventions to improve outcomes for preterm infants and their families. The study reporting adheres to the Consolidated Criteria for Reporting Qualitative Research.³⁰

Participants and Setting: The participants in this study were accessed through the Continuity of Care Program for Parents with Preterm Infants (CCPI) at Thammasat University Hospital, Thailand, which ran from March to December 2020.²⁴ The CCPI involved an individualized training course three times a week, a preterm infant handbook, and a video clip with

a flipchart, all designed to provide guidance on child health and development, accident prevention, home care, emergency response planning, and facilities to support family readiness after discharge. A physician, hospital healthcare staff, and primary care providers also conducted a home visit within a week. For this study, the 45 participants who completed the CCPI and returned for a four-week post-discharge follow-up were invited to participate. Eight mothers were selected using purposive sampling based on the following criteria: 1) being the primary caregivers of their preterm infants during the first-month post-discharge; 2) residing in Klong Luang District, Pathum Thani Province; 3) having fluency in Thai; and 4) being willing to participate in a face-to-face interview. Sample size determination was guided by the principle of data saturation, a point at which new data collection no longer yields novel insights.²⁹ Data collection was concluded upon reaching thematic redundancy, as evidenced by the absence of emergent perspectives across eight consecutive interviews.

Ethical Considerations: Ethical approval was obtained from the Human Research Ethics Committee of Thammasat University (Science) (COA No. 091/2020) and the hospital director. The second author provided all eligible participants with verbal and written information outlining the study's purpose, the in-depth interview process, voluntary participation, and their rights, including the option to skip questions or withdraw from the study at any time without consequence. Participants' identities were anonymized to ensure confidentiality and privacy by replacing personal identifiers with coded labels in the dataset. All interview recordings and field notes were stored in a secure, password-protected file system accessible only to the research team. Prior to the interview, participants were allowed to ask questions and sign the written consent form to confirm their understanding and agreement.

Data Collection: Eligible participants who had completed the CCPI were invited to participate in this

qualitative study during their four-week post-discharge follow-up visit at the outpatient clinic. Mothers who expressed a willingness to share their experiences of providing preterm infant care at home were provided with detailed information regarding the qualitative research process and subsequently interviewed in a private, confidential room using a semi-structured interview guide. The initial open-ended question: “Please tell me about your experience caring for your baby after returning home.” This approach encouraged participants to express their thoughts, feelings, and actions freely. Probing questions were used to explore participants’ caregiving practices in greater depth, including the factors that facilitated or hindered caregiving during the discharge period. The example of probing questions was “How did you prepare for preterm infant care at home?”; “Who was involved in caring for your infants?” and “How did you monitor your preterm infant’s growth?” To ensure consistency, all interviews were conducted by the second author, who was experienced in qualitative interviewing. One interview per mother was conducted, totaling eight interviews. Each interview lasted approximately 30 to 45 minutes and was digitally audio-recorded with the participant’s consent for accurate transcription and analysis. Furthermore, a subset of participants was interviewed on one or two additional occasions to facilitate the acquisition of deeper insights and to ensure data saturation rigorously.

Data Analysis: Thematic analysis was employed.³¹ First, the second and fourth authors independently read and re-read the verbatim transcripts to familiarize themselves with the data and identify initial ideas. Next, 52 initial codes were systematically applied to capture significant features within each data segment. In the iterative theme development process, similar codes were clustered and aggregated into potential themes. After that, all authors collaboratively reviewed and refined potential themes by discerning the essence of each and evaluating their contribution to the overarching theme.

To enhance trustworthiness, several strategies were employed throughout the research process.³² Credibility was strengthened by transcribing all data word by word and analyzing them concurrently to foster a deep understanding of the information. Field notes were taken during each interview to capture non-verbal cues, emotional expressions, and contextual information that complemented the audio data. While there was no formal field notes guide, the researcher recorded observations of body language, tone, and emotional responses immediately after each interview. Additionally, reflexivity was incorporated, with the researcher maintaining self-awareness of personal biases and perspectives to ensure that the findings accurately reflected participants’ voices. Member checking was conducted with two participants to review and confirm the accuracy of interpretations. Transferability was achieved by documenting each step of the research process and providing a thick description of data relevant to the participants, ensuring transparency and the ability to replicate the study. Dependability and confirmability were supported through the implementation of an audit trial. The audit trail involved the systematic external review of the research process and findings by two professional peers, enabling independent feedback and validation of the analytical interpretations. Reflexive journaling was also employed, documenting the researchers’ biases and thoughts, thereby fostering transparency and ensuring that the researchers’ preconceptions did not influence the findings.

Findings

The findings were derived from interviews with eight mothers, seven of whom had singleton infants, while one mother had twins. Most participants lived in nuclear families and were first-time mothers. Their infants included five girls and four boys, with an average weight of 1,881.62 grams ($SD = 174.32$). The duration of hospital stays ranged from 14 to 45 days, with an average duration of 23.62 days (Table 1).

Table 1. Characteristics of informants and preterm infants (n = 8)

ID	Age (year)	Education	Family type	GA (week)	Gravida	Infant's sex	BW (gram)	LOS (day)
1	36	Bachelor	Nuclear	32	1	Girl	1803	45
2	38	Master	Nuclear	32+5	1	Boy	1857	31
3	32	Bachelor	Nuclear	33+4	1	Boy	1846	25
4	34	Bachelor	Nuclear	34+4	1	Girl	1837	17
5	35	Bachelor	Nuclear	34+2	2	Girl	1936	18
6	28	High school	Extended	33+6	1	Girl	1917	14
7	32	Bachelor	Extended	32+4	2	Boy	1617	25
8	34	Bachelor	Nuclear	35+1	1	Boy	2240	14

Note. GA = Gestational age, LOS = Length of stay, BW = Birth weight

The qualitative analysis revealed three main themes: maternal fulfillment with infants' growth, receiving support to strengthen maternal role, and challenges in accessing primary health care after discharge.

Theme 1: Maternal fulfillment with infants' growth

Maternal fulfillment captures the profound sense of satisfaction and achievement mothers experience as they embrace their roles in nurturing the health and development of their preterm infants. Despite facing unique challenges, such as their infants' physiological immaturity, heightened health risk and dependence on specialized care demanded, mothers demonstrated remarkable adaptability and resilience to demands. Their sense of fulfillment was deeply tied to their infants' progress, with health improvements and developmental milestones reaffirming their ability to address their babies' needs effectively. This theme is reflected through two sub-themes: nurturing preterm infants' growth and reassuring of caring for preterm infants.

Nurturing preterm infants' growth

Mothers consistently emphasized the importance of diligent and appropriate caregiving to foster their infants' growth and enhance their chances of survival. They explained the distinct characteristics of preterm infants, such as small size, thin skin, prolonged sleep patterns, reduced crying, and respiratory problem issues that necessitated heightened attention and specialized care. These challenges heightened mothers' vigilance, and they invested significant time and energy into their caregiving roles.

Driven by a strong sense of responsibility and a desire to see their infants thrive, mothers demonstrated unwavering dedication to essential caregiving tasks. These included adhering to strict feeding schedules, maintaining hygiene through diapering and bathing, and protecting their infants from potential health risks. Witnessing tangible signs of growth, such as increased feeding, weight gain, and more frequent crying, provided mothers with moments of reassurance and pride.

“Compared to the first time, I’m not so scared anymore. I think I can do it... He doesn’t cry like my first child. His older brother would wake up and cry when he was hungry. But this one wakes up and lies still. He doesn’t cry. I have to carry him to breastfeed every 2–3 hours... He sucks for about 20 minutes; then he’ll let go. He’s probably full because he could sleep for about 2–3 hours... Be careful not to make him sick. Don’t take him to places with smoke or bad air.”
(32-year-old mother)

“He [the infant] is the inspiration for everyone. We hope to see him grow... I let him eat as much as he wants. But if he doesn’t cry when he’s hungry, I’ll still wake him up to breastfeed on schedule, just like in the hospital. I saw the nurses feeding him on time, even if he didn’t wake up or cry for milk... When I was in the hospital, I had to encourage him to drink milk constantly. For nearly three

weeks after discharge, I kept trying to wake and feed him at set times. Now, he wakes up more often on his own, cries for milk, and drinks more each time. It's a good sign of development.” (32-year-old mother)

Reassuring of caring for preterm infant

Acquiring knowledge and skills to address the complex needs of preterm infants was pivotal in reducing maternal anxiety and enhancing caregiving confidence. While some mothers had prior experience caring for full-term infants, the distinct challenges of preterm care, such as prolonged sleep, breathing difficulties, and limited vocal cues, were initially overwhelming. Mothers found reassurance in the practical guidance provided by healthcare professionals, which included instructions on feeding techniques, establishing sleep routines, breathing support, monitoring for abnormal symptoms, and managing potential health risks. These skills empowered them to handle challenges effectively and bolstered confidence in their caregiving abilities. This progress, especially for the first-time mother, represented a significant emotional transition from initial uncertainty and anxiety to a sense of competence and accomplishment. This transition, in turn, reinforced their maternal fulfillment as they successfully navigated the complexities of preterm infant care.

“They [nurses] taught me to observe their breathing. If there’s a severe crackling sound, or if he can’t breathe well and turns green, I have to rush to the hospital... Once, my baby had a fever of 39 degrees Celsius shortly after returning home. I wiped them down to reduce the fever and took them back to see the doctor again... The doctor checked them; they only had a fever. Their lungs were fine, there was only a little crackling sound. So, they taught me how to suck out the snot and use saline. I can do it. Both of them got better.” (34-year-old mother who had twin infants)

“I’m a new mother, so the nurses taught me since basic care – how to hold and carry the baby, fold a diaper, and care for him. It’s a good guideline because I didn’t know these things. Especially what to do when he doesn’t breastfeed sometimes... The nurse visited my home to check if the baby could eat and how much he weighed. They reminded us to return to Thammasat for checkups as scheduled.” (38-year-old mother)

Theme 2: Receiving support to strengthen maternal role

Social support is needed to achieve and maintain motherhood of preterm infants and reduce maternal stress. All participants frequently faced physical and emotional exhaustion due to the demanding nature of preterm infant care, such as frequent feeding schedules, constant health risk observation, and managing household tasks. Amid these challenges, the availability of supportive persons becomes critical in enabling mothers to fulfill their role effectively and nurturing their emotional resilience. This theme is categorized into two sub-themes: family support and peer support.

Family support

Family members, particularly their husbands and mothers, were indispensable in alleviating caregiving burdens. All mothers described relying on their family members to manage the intensive demands of preterm infant care, including breastfeeding every two hours, caring for their baby, managing household chores, and planning for their professional commitments. For mothers in nuclear families, moving temporarily to extended family homes in other provinces was considered a viable option to ensure the baby received adequate care when the parents returned to work. This reliance on family eased maternal fatigue, underscored maternal adaptability, and fostered the infant’s well-being.

“Now I’m on maternity leave. My husband and mom help each other care for the baby as much as possible because I’m tired. He can support me and take care of the baby. There’s warmth in

the family... We both work full-time. When we go back to work, we'll have to send our baby to my mom's home in the north. I would pump breastmilk and send it there... I've taught my mom before; she knows how to store it and thaw the milk." (32-year-old mother)

"At first, we planned to return to my husband's home in another province because his mom is a village health volunteer, so she could help us to take care of the baby... But our child needs his ears checked, and I have joint pain that requires follow-up here. So, we have to care for our baby together, but he helps by holding the baby, bottle-feeding, and doing even more than me." (34-year-old mother)

Peer support

Some mothers identified peer support as a valuable resource in managing the complexities of preterm infant care. Friends with prior child-rearing experience provided practical advice, shared personal experiences, and exchanged tips that complemented the formal guidance offered by healthcare professionals. This information support not only helped the mothers navigate the challenges of caring for their preterm infants but also helped reduce maternal stress and offered emotional reassurance to be more confident in their caregiving abilities.

"I'm not as strict as other mothers, but I know that it's not easy to care for a child. I have to learn a lot. I try to ask my friends at work or ones who have had children. It helps me not to stress." (32-year-old mother)

"Sometimes I feel, 'Is this really my child? Can I handle a tiny baby?' I have to wake her up to breastfeed... Sometimes, I talk to my husband. But other times, I talk to my friends at work who have had children. It keeps me from getting too stressed." (28-year-old mother)

Theme 3: Challenges in accessing primary health care after discharge

Most participants encountered significant obstacles in utilizing primary healthcare (PHC) services for their preterm infants post-discharge. Although Thailand's Universal Healthcare Coverage Scheme (UCS), known as the "Thirty Baht" scheme, provides essential and emergency healthcare services, many mothers still face challenges that lead them to prefer tertiary hospitals for follow-up care. These hospitals offer specialized and consistent healthcare staff, making mothers feel better and meeting their preterm infants' unique needs. Two main subthemes emerged from this theme: distance barriers and lack of specialized preterm care.

Distance barriers

This subtheme emphasizes the geographical challenges mothers face in accessing PHC centers. For many families, PHC facilities are located a considerable distance from their homes. Given the fragile health of their preterm infants, many mothers expressed frustration with the long travel times and the difficulties associated with transporting a newborn. Even if it requires additional costs, they often prefer tertiary hospitals that feel more accessible and provide continuity of care.

"I wanted to visit the local PHC for my baby's checkup, but I refuse to make an appointment for the next visit because it is too far from my home. I stay at Klong Sam subdistrict, only 5 kilometers from Thammasat University Hospital, while the PHC under my rights is about 20 kilometers away. It's quite a troublesome trip to take my small baby there. So, I choose to pay out-of-pocket instead. I think it's easier to continue treatment at the hospital where my baby's medical records are kept." (28-year-old mother)

"The local healthcare center is far from my home, and I don't think they have the equipment or staff to care for a preterm baby. I'm worried that if

anything happens, they won't be able to help. I feel safer with the doctors at Thammasat University Hospital (a tertiary hospital), where they have everything I need. It's more convenient for me to just go there for follow-ups." (32-year-old mother)

Lack of specialized preterm care

This subtheme reflects mothers' concerns about the limited specialized care for preterm infants available at PHC centers. Many mothers feel their babies require specific medical expertise, such as that provided by neonatologists, typically only accessible at tertiary hospitals. Additionally, they value the continuity of care and the familiarity with the hospital staff, who are already aware of their baby's medical history. This lack of specialized personnel in PHC centers leads mothers to prefer follow-up visits at tertiary facilities, where they feel assured of receiving the high-quality, specialized care necessary for their infants.

"Basically, I gave birth at Thammasat University Hospital, with no charge or extra-payment. Nurses told me that "Thirty Baht" (Universal healthcare scheme) can cover all healthcare costs in case of an emergency. They advise us to go back to the local healthcare service near our home, but I'm hesitant to access PHC because they don't have a neonatologist, and I suspect the quality of care for my baby." (35-year-old mother)

"I'm hesitant to use the local PHC because they don't have a neonatologist. We're worried about the care my baby would receive. After spending so much time in the hospital with specialists, it's hard to trust that the local doctors would be able to provide the same level of care. So, we decided to go back to the hospital where she was born, even if we have to travel a longer distance." (30-year-old mother)

Discussion

Our findings illuminate the complex and multifaceted challenges and experiences of mothers providing care for preterm infants in the post-discharge period within Thailand. We identified key themes, including maternal fulfillment with infants' growth, receiving support to strengthen maternal role, and challenges in accessing primary health care after discharge. Mothers of preterm infants in this study exhibited a profound sense of fulfillment, driven by their infants' growth and development milestones, such as weight gain, increased feeding, and more frequent crying, which served as markers of health progress. Despite confronting significant challenges related to their infants' fragile health and physiological immaturity, these mothers diligently monitored infant health and behaviors. They adopted hospital-established routines, particularly for breastfeeding, to support their infants' health improvement. These findings are consistent with prior research showing that parents often experience a blend of happiness and stress, expressing gratitude for bringing their infant home while doubting their child's readiness to return home.^{9,18,19,25} Given the perceived high risk of health complications in preterm infants, mothers closely monitored their infants' health and adapted caregiving practices, especially in feeding and hygiene, as well as cleaning and disinfecting the home environment to minimize risks.^{9,21,27}

Furthermore, the reassuring aspect of caregiving identified in this study highlights the critical role of healthcare professionals in alleviating maternal anxiety. Guidance provided by nurses, such as instruction on breastfeeding techniques and recognizing abnormal symptoms, empowered mothers with confidence in their caregiving abilities. Consistent with previous studies,^{7,18,20} parents harbored concerns regarding their infants' appearance and behavior and felt incompetent regarding their parental role. Providing comprehensive support and information on infant health progress

and behaviors, alongside continuous counselling by healthcare providers, has been shown to alleviate anxiety, increase confidence, and strengthen the parental role.^{9,10,20,23,33} Parents who feel adequately prepared for discharge are better able to foster their infants' development, further highlighting the importance of healthcare providers in guiding effective post-discharge routines.³⁴

This study also highlights the crucial role of social support in mitigating maternal stress and enhancing caregiving abilities. Both family and peer support were identified as essential components in easing the challenges of preterm infant care at home. Family members' involvement, for example, assisting with frequent feedings, managing household responsibilities, and providing emotional support, was consistent across all participants. These findings align with previous studies indicating that family support, mainly spouses and grandmothers, in physical caregiving, advice, and household chores is pivotal in reducing maternal stress and enhancing the overall caregiving experience.^{12,23,27-28,33} Additionally, support from friends or other parents in the NICU through sharing experiences and exchanging caregiving tips helped them feel more confident in managing the complexities of preterm infant care.^{23,33}

Access to PHC services post-discharge emerged as a significant challenge for many mothers in this study. While Thailand's UCS provides essential healthcare services, mothers faced logistical and quality-related issues that impeded their use of local PHC facilities. Distance barriers and the lack of specialized care for preterm infants in local health centers were significant concerns, prompting many mothers to continue care at tertiary hospitals. Mothers expressed frustration over the limited specialized care available at their registered PHC sites and the complexity of the UCS, which restricted access to advanced neonatal care. This finding aligns with past studies reporting that the lack of specialized personnel in local settings creates a significant care gap, forcing many families to seek follow-up services at more distant tertiary hospitals, even when inconvenient or costly.^{20,35,36} These barriers highlight systemic

issues that must be addressed to improve continuity of care for preterm infants. As suggested by Harahap et al.,³⁶ enhancing referral systems, ensuring better integration of services across primary and tertiary care levels, and addressing logistical barriers could significantly improve healthcare accessibility for families of preterm infants.

Limitations and future research

This study has two main limitations. First, participants were limited to mothers attending the CCPI at a single hospital. The findings may not be fully representative of the broader spectrum of maternal experiences associated with providing home-based preterm infant care across diverse settings within Thailand. Second, interviews were conducted four weeks after discharge, potentially limiting insights into the long-term experiences and challenges these mothers may face as their infants grow. A longitudinal study is needed to gain a more comprehensive understanding of the evolving needs of families caring for preterm infants.

Additionally, while the continuity of care program for mothers with preterm infants was a key component of the participants' experiences, the program's effectiveness in equipping mothers to care for their preterm infants after discharge was not directly explored in the interviews. Recommendations for future research could examine how such programs impact maternal confidence and preparedness in caring for preterm infants after discharge. This could provide valuable insights into the role of continuity of care programs in supporting mothers during the transition from hospital to home.

Conclusions and Implications for Nursing Practice

Preterm birth poses significant emotional and practical challenges for mothers, particularly during the transition from hospital to home. Maternal fulfillment, the importance of social support, and

challenges in accessing primary healthcare are central to understanding these mothers' lived experiences. To address these challenges, nurses should develop and implement family-centered discharge planning that extends beyond the hospital setting. This intervention may include providing educational materials tailored to preterm care, organizing group discussions for families to share experiences, and scheduling follow-up support through home visits or telehealth services.

Furthermore, strengthening interdisciplinary collaboration and streamlining referral processes between tertiary hospitals and PHC services from NICU to home settings is essential to ensuring continuity of care for preterm infants. This can reduce dependency on tertiary centers and facilitate smoother transitions to home-based care.

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References

1. World Health Organization. WHO recommendations for care of the preterm or low-birth-weight infant [Internet]. Geneva: World Health Organization; 2022 Nov 15 [cited 2025 Feb 14]. Available from: <https://www.who.int/publications/i/item/9789240058262>
2. Ohuma EO, Moller AB, Bradley E, Chakwera S, Hussain-Alkhateeb L, Lewin A, et al. National, regional, and global estimates of preterm birth in 2020, with trends from 2010: a systematic analysis. Lancet. 2023;402(10409):1261-71. doi:10.1016/S0140-6736(23)00878-4. Erratum in: Lancet. 2024;403(10427):618. doi: 10.1016/S0140-6736(24)00267-8.
3. Cao G, Liu J, Liu M. Global, regional, and national incidence and mortality of neonatal preterm birth, 1990–2019. JAMA Pediatr. 2022;176(8):787-96. doi: 10.1001/jamapediatrics.2022.1622.
4. Hassan AM. Incidence of preterm infants, indications of admission, risk factors, and discharge outcome: a retrospective study. Open Nurs J. 2022;16:e187443462203250. doi:10.2174/18744346-v16-e2203250.
5. Kinpoon, K, Chaiyarak, S. The incidence and risk factors for preterm delivery in Northeast Thailand. Thai J Obstet Gynaecol [Internet]. 2021 Mar [cited 2025 Feb 14];29(2):100-11. Available from: <https://he02.tci-thaijo.org/index.php/tjog/article/view/207803>
6. Intaraphet S, Kongpechr S, Mahawerawat S, Potchana R. Risk factors and outcomes of preterm birth among Northeastern Thai teenage mothers in Thailand. J South Asian Feder Obst Gynae. 2021;13(2):111-6. doi: 10.5005/jp-journals-10006-1871.
7. Ionio C, Mascheroni E, Colombo C, Castoldi F, Lista G. Stress and feelings in mothers and fathers in NICU: identifying risk factors for early interventions. Prim Health Care Res Dev. 2019;20:e81. doi:10.1017/S1463423619000021.
8. Hamon E, Bourdin B, Le Driant B. Parental representations after preterm birth: a narrative review. Front Psychol. 2023;14:1114418. doi:10.3389/fpsyg.2023.1114418.
9. Spence CM, Stuyvenberg CL, Kane AE, Burns J, Dusing SC. Parent experiences in the NICU and transition to home. Int J Environ Res Public Health. 2023;20(11):6050. doi:10.3390/ijerph20116050.
10. Govindaswamy P, Laing S, Waters d, Walker K, Spence K, Badawi N. Needs and stressors of parents of term and near-term infants in the NICU: a systematic review with best practice guidelines. Early Hum Dev. 2019;139: 104839. doi:10.1016/j.earlhumdev.2019.104839.
11. Sarapat P, Fongkaew W, Jintrawet U, Mesukko J, Ray L. Perceptions and practices of parents in caring for their preterm infants. Pacific Rim Int J Nurs R. 2017;21(3):220-33. Available from: <https://he02.tci-thaijo.org/index.php/PRIJN/article/view/78177>
12. Wanduru P, Hanson C, Waiswa P, Kakooza-Mwesige A, Alvesson HM. Mothers' perceptions and experiences of caring for sick newborns in newborn care units in public hospitals in Eastern Uganda: a qualitative study. Reprod Health. 2023;20(1):106. doi:10.1186/s12978-023-01649-1.

13. Barnes S, Macdonald I, Rahmaty Z, de Goumoëns V, Grandjean C, Jaques C, et al. Effectiveness and family experiences of interventions promoting partnerships between families and pediatric and neonatal intensive care units: a mixed methods systematic review. *JBI Evid Synth*. 2024;22(7):1208–61. doi:10.11124/JBIES-23-00034.
14. Aloysius A, Kharusi MK, Winter R, Platonos K, Banerjee J, Deierl A. Support for families beyond discharge from the NICU. *J Neonatal Nurs*. 2018;24(1):55–60. doi: 10.1016/j.jnn.2017.11.013.
15. Hannan KE, Hwang SS, Bourque SL. Readmissions among NICU graduates: who, when and why? *Semin Perinatol*. 2020;44(4):151245. doi:10.1016/j.semperi.2020.151245.
16. Kair LR, Goyal NK. Hospital readmission among late preterm infants: new insights and remaining questions. *Hosp Pediatr*. 2022;12(7):e273–4. doi: 10.1542/hpeds.2022-006640.
17. Hebballi NB, Avritscher EB, Garcia E, Bain A, Bartz-Kurycki MA, Tsao K, et al. Healthcare utilization among infants discharged from the neonatal intensive care unit: a descriptive cost analysis. *Health Serv Insights*. 2023;16: 117863 29231169604. doi: 10.1177/11786329231169604.
18. Özberk H, Cicek O, Ayar D, Okumus H. Difficulties for mothers: home care of babies born preterm. *Bezmialem Sci*. 2021;9(4):498–502. doi: 10.14235/bas.galenos.2021.4177.
19. Carvalho NA, Santos JD, Sales IM, Araújo AA, Sousa AS, Morais FF, et al. Care transition of preterm infants: from maternity to home. *Acta Paul Enferm*. 2021;34:eAPE02503. doi: 10.37689/acta-ape/2021AR02503.
20. Berman L, Raval MV, Ottosen M, Mackow AK, Cho M, Goldin AB. Parent perspectives on readiness for discharge home after neonatal intensive care unit admission. *J Pediatr*. 2019;205:98–104. doi:10.1016/j.jpeds.2018.08.086.
21. Tilakarayasup S, Boonmat N, Tirachai N. The experiences of mothers on caring low birth weight premature infants. *J MCU Nakhondhat*. 2022;9(5):603–16. Available from: <https://so03.tci-thaijo.org/index.php/JMND/article/view/261464> (in Thai).
22. Mahwasane T, Netshisaulu KG, Malwela TN, Maputle MS. Support needs of parents with preterm infants at resource-limited neonatal units in Limpopo Province: a qualitative study. *Curationis*. 2023;46(1):e1–8. doi: 10.4102/curationis.v46i1.2409.
23. Eduku S, Annan E, Amponsah MA. Maternal social support and resilience in caring for preterm newborns at the neonatal intensive care unit (NICU): a qualitative study. *Heliyon*. 2024;10(14):e34731. doi: 10.1016/j.heliyon.2024.e34731.
24. Kaewwimol P, Ruchiwit M, Liaw JJ. Effects of a continuity of preterm infant care program on parenting outcomes and service utilization rates. *Open Public Health J*. 2022;15(1): e18 7494452206080. doi: 10.2174/18749445-v15-e2206080.
25. Aydon L, Hauck Y, Murdoch J, Siu D, Sharp M. Transition from hospital to home: parents' perception of their preparation and readiness for discharge with their preterm infant. *J Clin Nurs*. 2018;27(1–2):269–77. doi: 10.1111/jocn.13883.
26. Schultz BE, Corbett CF, Hughes RG, Bell N. Scoping review: social support impacts hospital readmission rates. *J Clin Nurs*. 2022;31(19–20):2691–705. doi: 10.1111/jocn.16143.
27. Bernardino FBS, Silva EFL, Silva RA, Mufato LF, Viera CS, Gaíva MAM. Experience of family members in the care of preterm newborns discharged from a neonatal intensive care unit. *Rev Rene*. 2022;23:e80705. doi:10.15253/2175-6783.20222380705.
28. Osorio Galeano SP, Salazar Maya AM. Preparing parents for discharge from the neonatal unit, the transition, and care of their preterm children at home. *Invest Educ Enferm*. 2023;41(1):e04. doi: 10.17533/udea.iee.v41n1e04.
29. Sandelowski M. Whatever happened to qualitative description? *Res Nurs Health*. 2000;23(4):334–40. doi: 10.1002/1098-240x(200008)23:4<334::aid-nur9>3.0.co;2-g.
30. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care*. 2007;19(6):349–57. doi: 10.1093/intqhc/mzm042.
31. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3(2):77–101. doi: 10.1191/1478088706qp063oa.
32. Lincoln YS, Guba EG. Naturalistic inquiry. Thousand Oaks: Sage; 1985.

33. Buys K, Gerber B. Maternal experiences of caring for preterm infants in a vulnerable South African population. *Health SA.* 2021;26:1549. doi: 10.4102/hsag.v26i0.1549.
34. Cao W, Li G, Guo Y, Liu X, Wang H, Gao H. Parental readiness for hospital discharge and the relationship with growth and development of infant in China. *J Pediatr Nurs.* 2024;75:e112-8. doi:10.1016/j.pedn.2024.01.001.
35. Tanaka MC, Bernardino FBS, Braga PP, Alencastro LCDS, Gaíva MAM, Viera CS. Weaknesses in the continuity of care for preterm infants discharged from the neonatal unit. *Rev Esc Enferm USP.* 2024;58:e20230228. doi: 10.1590/1980-220X-REEUSP-2023-0228en.
36. Harahap NC, Handayani PW, Hidayanto AN. Barriers and technologies of maternal and neonatal referral system in developing countries: a narrative review. *Inform Med Unlocked.* 2019;15:100184. doi: 10.1016/j imu.2019.100184.

ประสบการณ์ของมารดาในการดูแลทารกคลอดก่อนกำหนดที่บ้าน ภายหลังการจำหน่ายจากโรงพยาบาล : การศึกษาวรรณนาเชิงคุณภาพ

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บทคัดย่อ: การดูแลทารกคลอดก่อนกำหนดที่บ้านภายหลังการจำหน่ายจากโรงพยาบาลเป็นความท้าทายเฉพาะสำหรับมารดา งานวิจัยที่มีอยู่ในปัจจุบันได้เสนอข้อมูลเชิงลึกอย่างจำกัดเกี่ยวกับการดูแลทารกคลอดก่อนกำหนดของมารดาที่บ้านภายหลังการจำหน่าย การศึกษาวรรณนาเชิงคุณภาพนี้ มุ่งสำรวจประสบการณ์ของมารดาในการดูแลทารกคลอดก่อนกำหนดภายหลังการจำหน่ายจากโรงพยาบาลระดับติดภูมิแห่งหนึ่งในกรุงเทพมหานคร ประเทศไทย

มารดาที่มีทารกคลอดก่อนกำหนดที่ได้รับการจำหน่ายจากโรงพยาบาลในระยะเวลา 1 เดือนที่ผ่านมา จำนวน 8 รายได้รับการคัดเลือกแบบเฉพาะเจาะจง ผู้วิจัยใช้การสัมภาษณ์แบบกึ่งโครงสร้างในการรวบรวมข้อมูลเพื่อศึกษาประสบการณ์ของมารดา และการวิเคราะห์ทั่วไป สาระสูญนำมามาใช้เพื่อค้นหาแบบแผนการดูแลที่เกิดขึ้น และทำความเข้าใจประสบการณ์ในเชิงลึก ผลการศึกษาพบ 3 ประเด็นหลัก ประกอบด้วย ความรู้สึกเติมเต็มในบทบาทมารดาจากการเจริญเติบโตของทารก การได้รับการสนับสนุนเพื่อเสริมสร้างความเข้มแข็งในการดูแลทารก และความท้าทายในการเข้าถึงบริการสุขภาพปฐมภูมิภายหลังการจำหน่าย มารดาแสดงความรู้สึกที่ได้รับการเติมเต็มในบทบาทของตนเองในการส่งเสริมการเจริญเติบโตและพัฒนาการของทารก ซึ่งได้รับการตอกย้ำจากการลังเกต พัฒนาการที่สำคัญ อาทิ การมีน้ำหนักตัวเพิ่มขึ้นและการดูดนมได้ดีขึ้น ในระหว่างช่วงเวลาหนึ่ง มารดาต้องเผชิญกับความท้าทายหลากหลายประการ เช่น การจัดการปัญหาด้านสุขภาพของทารก และการสร้างสมดุลที่ต้องรับภาระหน้าที่ความรับผิดชอบมากมาย การสนับสนุนจากบุคลากรทางการแพทย์ สมาชิกในครอบครัว และกลุ่มเพื่อน มีบทบาทสำคัญในการเสริมสร้างทักษะและความมั่นใจที่จำเป็นในการดูแลทารก นอกจากนี้ อุปสรรคในการเข้าถึงบริการสุขภาพปฐมภูมิ อาทิ อุปสรรคด้านการเดินทาง และข้อจำกัดในการเข้าถึงบริการเฉพาะทางสำหรับทารกคลอดก่อนกำหนดอย่างสูงกล่าวถึง ผลการวิจัยเหล่านี้เน้นย้ำถึงความสำคัญของการพยาบาลที่มุ่งตอบสนองความต้องการในการดูแลของมารดา ทั้งด้านอารมณ์ และด้านการปฏิบัติ พยาบาลจึงมีบทบาทสำคัญในการวางแผนการจำหน่ายโดยการให้ความรู้ด้านการดูแลทารกคลอดก่อนกำหนดที่เหมาะสม การส่งเสริมการมีส่วนร่วมของครอบครัว และการสร้างความต่อเนื่องของการดูแลผ่านบริการติดตามภายหลังการจำหน่าย

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