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EXPLORING MOTHER's EXPERIENCE OF KANGAROO MOTHER CARE AND ITS PERCIEVED BENEFITS FOR INFANTS DEVELOPMENT

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Abstract

Background: Kangaroo Mother Care (KMC) is an uncomplicated, low-cost, and evidence-based procedure of caring for preterm and low birth weight infants through continuous skin-to-skin contact and breastfeeding support. Even though its clinical benefits are well established, less is known about how mothers understanding KMC and how they observe its impact on their infants' development.

Objective: This study aims to explore mothers' experiences of performing Kangaroo Mother Care and to value their perceptions of its benefits for infant development.

Methodology: A qualitative descriptive design was utilized. Mothers who had experienced KMC with their preterm or low birth weight infants in a public sector hospital were selected through purposive sampling. Data were collected using in-depth, semi-structured discussions until data saturation was achieved. The interviews were examined using thematic investigation to identify key themes and structure.

Results: Two important themes emerged from the investigation: (1) Understanding and acceptance of KMC practice (2) Perceived Benefits of KMC on Infant health

and well-being.

Mothers initially reported distress, anxiety, and physical discomfort while practicing KMC. However, with support from healthcare professionals, they progressively became much confident and emotionally connected with their infants. Participants observed that KMC improved their infant's body temperature, breastfeeding, sleep, overall health, and strengthened mother–infant bonding. Even with challenges such as fatigue, lack of privacy, and limited family support, mothers considered KMC a valuable and rewarding experience.

Conclusion: Kangaroo Mother Care was perceived by mothers as a beneficial and meaningful practice that supported both infant development and maternal confidence. Continuous education, emotional support, and guidance from healthcare professionals are essential to promote successful KMC implementation and improve maternal and neonatal outcome.

1.INTRODUCTION

1.1 Background

Kangaroo Mother Care (KMC) is an evidence-based training which include skin-to-skin contact between a mother and her newborn baby. It often applied in the cases of premature or low birth weight infants. It has been usually approved by the World Health Organization (WHO) for its positive improvement on infant survival and growth. Researchers discussed that in recent years it has progressively shown that KMC contributes to better health outcomes by minimizing the risk of infections, hypothermia, and neonatal mortality, while also supporting breastfeeding and emotional bonding between mother and child (1).

Mothers who have tried Kangaroo Mother Care or KMC for short have a lot to say about what it's like. They can tell us how they feel about KMC and how they use it to take care of their babies. One study by Mu and others in 2019(1) said that a lot of mothers do not feel sure of themselves when they start using KMC, as they keep doing it they start to feel better about taking care of their babies and they feel more like mothers. Kangaroo Mother Care is something that can really help mothers. Another study by Mohammadi and others in

2023(2) found that mothers who use Kangaroo Mother Care all the time feel calm and happy. They feel good when their family and the people who take care of them at the hospital support them and tell them they are doing a job, with Kangaroo Mother Care.

In low-resource heritage, the challenges of implementing KMC are important. A study represented that how mothers providing Kangaroo Mother Care in hospital settings experienced physical tiredness, limited mobility, lack of food and emotional strain— despite acknowledging the benefits to their infants(3). Linked challenges were stated by mothers in South Africa, who valued the expressive closeness fostered through KMC but effort with fatigue and poor arrangement (4).

Cultural beliefs also outline how KMC is observed. Research in the Western Cape province of South Africa display that, even though some mothers at the start noticed KMC as strange or culturally unsuitable, they ultimately recognized its advantages, specifically when culturally respectful support was getatable (5).

In terms of infant development, KMC has been related to improved intelligence, emotional, and motor outcomes. Studies have revealed that longer durations of KMC show a relationship with better neurological development, higher degree of intelligence, and improved stress regulation in children, even into immaturity (6). Additionally, KMC make powerful maternal confidence and breastfeeding success. A Turkish study represented that mothers who experienced KMC had greater breastfeeding self-efficacy and less concerns about milk insufficiency (7).

1.2. Rationale of the Study

The logical thinking of this study is to see the sights and understand mothers' lived experiences of practicing Kangaroo Mother Care (KMC) and how it impacts their perceptions of infant development.

Although global recommendations by the World Health Organization (WHO), KMC adoption remains conflicting.

Understanding mothers' perspectives can provide valuable insights into obstacles, facilitators, and the emotional significance of this care method. Findings will help inform nursing practices and modify maternal and neonatal outcomes.

1.3. Objective of the Study

To explore mothers' experiences of practicing Kangaroo Mother Care (KMC) and to understand the perceived benefits of KMC for infant development.

1.4. Research Questions

Q1 What does Kangaroo Mother Care (KMC) mean to you, and what has been your experience, including benefits and challenges?

Q2. What support did you receive during KMC, and what advice would you give to other mothers?

1.5. Operational Definition

1.5.1. **Kangaroo Mother Care (KMC):** In this Study KMC is Continuous skin-to-skin contact between a mother and her newborn, combined with exclusive breastfeeding and early discharge with follow-up.

1.5.2. **Mothers' Experience:** In this Study Mothers Experience is the subjective perception and emotional response of mothers while performing KMC.

1.5.3. **Perceived Benefits:** In this Study Perceived Benefits is Mothers' recognition of positive physical, emotional, and developmental outcomes associated with KMC for their infants.

2. Literature Review

2.1. Review of Literature

The method of kangaroo mother care (KMC), which entails direct skin-to-skin contact between the mother and her baby, is a safe and economical strategy that offers significant advantages for both mothers and infants when compared to conventional incubator care.

(8). Dr. Edgar Rey introduced Kangaroo Mother Care (KMC) in Bogotá, Colombia, in 1978 as a response to a crisis, due to the high rate of admissions and limited infrastructure. The World Health Organization (WHO) now recommends immediate KMC as a standard practice in developed nations as well (9). Preterm birth or low birth weight is the primary cause of infant mortality; nonetheless, this risk can be reduced through different newborn care methods, such as Kangaroo Mother Care (KMC). Starting KMC early may greatly reduce complications linked to low birth weight, including respiratory problems, hypothermia, hypoglycemia, and infections that can obstruct neurocognitive development globally, a significant challenge in child health is the high rate of newborn deaths (10).Neonatal mortality remains elevated, particularly in developing nations, where approximately 15 million infants are born preterm and over one million preterm infants die each year (11). Prematurity is the foremost cause of neonatal mortality across the globe and is the second leading cause of infant deaths, contributing to 1.1 million deaths annual (12). Neonatal

mortality has remained high, with over 7000 fatalities worldwide per day, despite a dramatic drop in the morality rate of children under five in recent decades. Neonatals account for over 46% of the fatalities of children under five world worlwide (13).

According to the World Health Organization (WHO), an estimated 13.4 million preterm infants were born globally in 2020, representing more than one in ten of all births (14).

Implementing KMC can lower mortality and neonatal infection rates, encourage exclusive breast feeding, improve weight gain, enable more efficient clinical stabilization, and lessen stress for both mothers and children, as 90% of PT/LBW births take place in low and middle income nation (15)Sixty percent of the 15 million preterm newborns born worldwide each year are born in South Asia and Africa (16).Four million newborns worldwide pass away each year, with low birth weight and preterm birth being major contributing factors. In 2021, the neonatal mortality rate was 18 per thousand live births, meaning that almost 7000 fatalities happen every day all over the world. One of the top ten nations with the highest rates of preterm births is Pakistan (17). To improve health outcomes for both preterm newborns and their mothers, nurses must support moms who administer KMC. Ongoing teaching and direction can help improve the application of this evidence-based treatment. Mothers who practice KMC require continuing training and support, and healthcare providers should be encouraged to give postpartum services to mothers (18).

Mothers are mindful of KMC's points of interest. The KMC approach might have to be somewhat modified to oblige nearby traditions and social settings. Within the Pakistani environment, the security and welfare of mothers are significant. More consideration ought to be paid to KMC's accessibility, affordability, and accessibility to all. Establishing a KMC chain all through Pakistan, especially within the colder districts just like the north, ought to be the activity of the government and non-governmental bunches (17). KMC is a compelling intercession for making strides survival, weight pick up, and decreasing dreariness in preterm neonates (19).KMC has also been found to promote emotional bonding and support between mothers and their babies (16).Another study reported that mothers who had given KMC had more parental certainty, diminished uneasiness and push related with caring for a untimely newborn child (20), whereas one more study found that KMC practice was advantages since it permitted the mothers to associated with their infant, giving them a feeling of physical-mental constitution of neonate (21).

3.Methodology:

3.1. Study Design:

This study adopts a qualitative descriptive design. The qualitative approach typically involves a small sample size, which allows for in-depth exploration of participants' experiences. Several researchers in similar areas have also utilized limited sample sizes to gather rich and meaningful data.

3.2. Research Tool:

An interview guide will be used as the primary research tool. The interview guide is appropriate for qualitative descriptive studies as it ensures consistency while allowing flexibility in responses. In this

study, interviews will be conducted with mothers to explore their experiences of kangaroo mother care (KMC) and the perceived benefits for infant development.

3.3. Sample:

The study sample will be definite based on data saturation. Interviews will be conducted with informed mothers until no new themes or insights happen.

3.4. Sampling Technique:

Purposive sampling will be used. This method, commonly used in qualitative research, includes selecting participants based on specific inclusion criteria rather than random selection, make sure that the participants have connected knowledge and experience with KMC.

3.5. Ethical Considerations:

3.5.1. Agreement from authorities:

Prior approval will be obtained from the medical superintendent of the public hospital. This formal consent is necessary for conducting research within the hospital environment.

3.5.2. Permission from participants:

Informed consent will be gotten from all participating mothers. They will be completely briefed about the purpose of the research, their right to participate willingly, and their freedom to withdraw at any stage without any penalties(22). Ensuring voluntary participation safeguards participants' independency and addresses ethical concerns.

3.6. Inclusion and Exclusion Criteria

3.6.1. Inclusion criteria:

This research include those participants aged 18 or higher up who have experienced childbirth and have provided kangaroo mother care to their newborn (low birth weight or preterm). Those mothers who are ready to participate in an in-depth interview.

3.6.2. Exclusion criteria:

This research except those participants who are unwilling to participate or those with hearing or speech disabilities and mothers who had adopted baby and used only formula feeding.

3.7. Setting of the Study

The study will be conducted in Kangaroo Mother Care (KMC) ward in Public Sector Hospital.

4.1 Introduction

This chapter presents the findings of the qualitative descriptive study exploring mothers' experiences of practicing Kangaroo Mother Care (KMC) and the perceived benefits for infant development. Data were collected through in-depth interviews with mothers who had experienced KMC in a public sector hospital. Thematic analysis was used to break down the data. From the analysis, two major themes and various subthemes emerged, reflecting mothers' understanding, experiences, challenges, and perceived benefits of KMC.

4.2 Demographic Characteristics of Participants

The contestants of this study included mothers aged 18 years and overhead who had delivered preterm or low birth weight infants and were performing Kangaroo Mother Care (KMC). In addition to age, other demographic characteristics were measured, including parity, educational level, livelihood, and duration of KMC practice.

Most of the mother were primiparous, experiencing childbirth for the first time while a littler quantity had previous childbirth experience (multiparous). The informative background of participants different, ranging from primary education to higher education. The majority of mothers were housewives, while a few were employed.

The period of KMC practice fluctuated among participants depending on visual percept such as the infant's medical condition, length of hospital stay, and individual family environments. These demographic variations delivered a broader understanding of the participant's background and their experience with KMC.

4.3 Emergent Themes and Subthemes

Theme 1: Understanding and Acceptance of Kangaroo Mother Care Practice

This theme indicate mothers' insights, emotional responses, and practical experiences related to KMC.

Subtheme 1.1: Awareness and Knowledge of KMC

Most mothers represented that they had little or no prior knowledge of KMC before hospital admission. Initial understanding was chiefly gained through healthcare staff, nurses, or doctors.

"I did not know about KMC before. Nurses explained that keeping the baby on chest will help him grow. They also lead me that this technique improves the baby's temperature regulation and supports the emotional bond between mother and infant."

Subtheme 1.2: Emotional Response towards KMC

Mothers represented mixed emotions at the starting, including fear, nervousness, and lack of confidence, especially due to the baby's fragile situation.

"I was afraid to hold my baby because he was too small. I felt worried that I might injured him while handling or positioning him on my chest. Over time, my emotional state transformed because I developed experience, increased confidence, and received support from healthcare staff, which helped me feel more comfortable and protected while handling my baby." With time, emotional responses shifted towards comfort, calmness, and satisfaction.

"Afterwards doing KMC for few days, I felt stress-free and more confident as a mother. Increasingly, my initial anxieties started to disappear, and I developed a growing sense of confidence in caring for my baby."

Subtheme 1.3: Practical Experiences and Challenges

Although mothers recognized the benefits of KMC, different challenges were reported:

- Physical discomfort and tiredness

- Difficulty maintaining position for long hours
- Lack of secrecy in hospital wards
- Limited family support
- Emotional stress and anxiety during early days

"Nonmoving for long time was painful, but I continued for my baby. Sitting for a extended time was uncomfortable and painfull, but I kept going for the reason that I wanted to do what was best for my baby. Even though it was ambitious, my baby's well-being mattered more to me."

Theme 2: Observed Benefits of Kangaroo Mother Care on Infant Health and Well-being

This theme highpoints mothers' observations of affirmative outcomes in their infants and themselves.

Subtheme 2.1: Improvement in Physiological Stability

Mothers observed improvement in their babies' temperature regulation, breathing, and overall Stability.

"My baby stayed warm and cried less lately on KMC. After practicing Kangaroo Mother Care (KMC), I perceived that my baby stayed warm and comfortable for longer period of time and I also perceived that my baby cried much less than before, appearing more calm and relaxed."

Many mothers pass judgment KMC helped reduce illness and hospital complications.

Subtheme 2.2: Enhanced Feeding and Sleep Pattern

Improved breastfeeding was specifically reported. Mothers detected that skin-to-skin contact increased milk production and made breast-feeding easier.

"My baby started breastfeeding improved after KMC and my baby initiated to breastfeed more effectively, with better latching and smoother feeding after KMC".

Longer and more settled sleep patterns were also observed among the infants. Mothers noted that babies seemed calmer and slept for prolonged periods with fewer disturbances, particularly during KMC. This improved sleep contributed to better comfort and overall wellbeing of the infants.

Subtheme 2.3: Strengthening Mother–Infant Bonding

Mothers stated strong emotional connection and bonding with their babies.

"I sensed very close to my baby. It made me feel like a real mother. I felt a deep sense of closeness with my baby throughout this time. It gave me a strong emotional bond and made me feel like a real mother, full of love and responsibility".

KMC was perceived to increase maternal confidence and reduce fear in handling the baby.

4.4 Summary of Findings

The findings discovered that although mothers firstly experienced fear, insecurity, and physical challenges, most developed acceptance and positive progressive attitudes towards KMC. KMC was perceived as beneficial in improving infant physiological stability, breastfeeding, sleep, and mother–infant attachment.

Support and guidance from healthcare professionals played a crucial role in helping mothers carry on and sustain Kangaroo Mother Care (KMC) practice effectively. Healthcare staff supported mothers by providing clear education about the importance, benefits, and correct method of KMC, often through verbal descriptions, demonstrations, and hands-on guidance. Nurses intimately supervised the mothers during initial periods, proper positioning and confirming the baby's safety and relief.

5.1 Discussion of Findings

The outcome of this study are unchanging with existing literature, which highpoints that mothers initially have incomplete awareness of Kangaroo Mother Care (KMC) but bit by bit develop understanding, acceptance, and confidence through education and practical experience. This development is similarly conveyed by (1), who originate that mothers' maternal confidence and identity importantly improved with continued KMC practice session. The emotional experiences acknowledged in this study, including fear, anxiousness, and physical discomfort throughout the initial stages of KMC, are also supported by previous studies conducted in Malawi and South Africa.(4) reported that mothers often experienced emotional stress and physical fatigue when initially practicing KMC due to unfamiliarity with the procedure and continued skin-to-skin placing. Although these challenges, mothers gradually improved and recognized the benefits of KMC.

The benefits observed in this study, such as improved temperature, better breastfeeding, enhanced infant sleep, and supported mother–infant personal relationship, strongly align with global evidence (8) described KMC as a harmless, cost-effective alternate to incubator care, providing significant physiological and psychological benefits for both mother and infant. Likewise, (10) highlighted that early initiation of KMC decreases difficulties of low birth weight, including hypothermia, infections, and respiratory issues, in the end improving neonatal outcomes.

Moreover, the findings support (6) and (7), who described that KMC improve emotional attachment and breastfeeding success. The World Health Organization (WHO) also recommends KMC as a standard intervention, particularly in low-resource settings, due to its effectiveness in dropping neonatal mortality and improving limited breastfeeding rates. These intercontinental recommendations are highly relevant in the context of Pakistan, where neonatal mortality remains a significant concern (14) (17).

The character of healthcare professionals identified in this study as a key implementer of

KMC practice is also supported by previous research.(2) and(18) emphasized that continuous nursing education, observation, and emotional support are essential for successful implementation of KMC. Similarly,(20) highlighted that professional leadership not only improves maternal confidence but also reduces anxiety and strengthen mother–infant bonding.

However, this study also known several contextual and systemic challenges that affected the implementation of KMC in the study environment(23). The accessibility of resources was constricted, particularly in secondary healthcare facilities, where sufficient space and privacy for mothers were often lacking. Congested wards and insufficient infrastructure made it difficult to ensure comfortable

and unbroken KMC practice. In some cases, patients were shifted between wards, which disturbed continuity of care and affected maternal confidence.

Language barriers also arisen as a significant challenge, especially when mothers came from different communication backgrounds, making communication with healthcare staff difficult at times. This sometimes affected understanding of guidelines and reduced the effectiveness of guidance and education sessions.

Moreover, limited staffing and workload pressure in secondary hospitals limited the time available for proper demonstration, management, and follow-up of KMC practice. These findings highlight important gaps between ideal KMC implementation and real-world clinical practice in resource-constrained settings.

Overall, while the findings strongly align with global literature supporting the effectiveness of KMC, they also emphasize the need to address infrastructural, communication, and staffing challenges to ensure optimal implementation in low-resource healthcare settings like Pakistan.

5.2 Conclusion

This qualitative descriptive study expose mothers' lived experiences of Kangaroo Mother Care and their perceptions of its benefits for infant development. The findings launch that KMC is a valuable, evidence-based practice that enhances infant physiological stability, encourages breastfeeding, strengthens mother–infant bonding, and increases maternal confidence. Even though initial emotional and physical challenges, mothers acknowledged KMC as beneficial and meaningful when adequate support was provided.

5.3 Recommendations

For Nursing Practice

Nurses should provide uninterrupted education and emotional support to mothers practicing KMC.

Secrecy, comfort, and adequate facilities should be guarantee in KMC wards.

- Regular counseling sessions should be incorporated into postnatal care.

Nurses should closely monitor mothers during KMC sessions to ensure correct placement and infant security.

Healthcare staff should actively admit family members to increase support for mothers and improve long-term continuation of KMC at domestic.

- Improve infrastructure to reduce physical discomfort and fatigue.

Provide necessary equipment and supplies (comfortable seating, privacy screens, clean bedding) for risk-free KMC practice.

Organize every day training for healthcare staff to better KMC care and adjustment.

For Policy Makers

- Integrate KMC into national maternal and neonatal health programs.
- Promote community-based awareness campaigns about KMC.
- Allocate resources for KMC training and implementation.

Develop clear national guidelines and monitoring systems to ensure consistent and effective implementation of KMC transversal all healthcare levels.

For Future Research

- Conduct lengthwise studies to evaluate long-term developmental outcomes of infants acquiring KMC.
- Explore fathers' and family members' experiences of supporting KMC.
- Use mixed-method approaches to strengthen evidence.
- Investigate barriers and facilitators affecting the implementation of KMC in different healthcare settings to increase its effectiveness and adoption.

5.4 Limitations of the Study

- Small sample size limits broad.
- Findings are settled on self-reported experiences.
- The data comes from participant's personal views and feelings, not direct observation.
- Study conducted in a single public sector hospital.

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