

Embracing Warmth: Perception on Kangaroo Mother Care Feasibility in NICU

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Abstract

Kangaroo Mother Care (KMC) is a widely recognized method for caring for preterm and low birth weight infants, involving skin-to-skin contact between the mother and child. This technique offers significant benefits, such as improved thermal regulation, enhanced breastfeeding, and stronger mother-infant bonding. Despite its proven effectiveness, the implementation of KMC in Neonatal Intensive Care Units (NICUs) faces several challenges, including infrastructural limitations, insufficient training, and inconsistent institutional support. This study aims to explore the perceptions, barriers, and feasibility of KMC implementation in NICU settings, providing insights to enhance the integration of this life-saving practice in tertiary care hospitals.

Title: “A Study to Explore the Perception Regarding the Feasibility of Implementation of Kangaroo Mother Care in NICU at a Selected Tertiary Care Hospital”

Objective: To explore the perception regarding the feasibility of implementation of kangaroo mother care in NICU Staff nurses.

Materials and Methods: In the present study, the researcher adopted a phenomenological qualitative research design with 8 samples using a non-probability purposive sampling technique. The tools include Socio-Demographic Data for NICU Staff nurses, and a semi-structured interview schedule.

Results: The study reveals five key themes: Understanding of KMC and its Benefits, where staff recognize KMC's value for preterm infants, with subthemes of General Knowledge, Perceived Benefits, and Emotional Well-being. Challenges in Implementing KMC highlight barriers like Infrastructure Limitations, Workload, and Staffing Issues. Training and Knowledge Gaps focus on Inconsistent Training and Gaps in Knowledge affecting confidence. Emotional Support and Motivation shows positive attitudes despite barriers, with subthemes of Emotional Benefits for NICU Staff nurses, Practical Barriers, and Emotional Support Needs. Institutional Support and Policy Implementation emphasizes Guideline Availability, Enforcement Challenges, and Policy Improvement.

Conclusion: In conclusion, this study highlights the recognized benefits of Kangaroo Mother Care (KMC) for preterm infants but identifies key challenges in its implementation, including inadequate

infrastructure, inconsistent training, and limited institutional support. Addressing these barriers through better resources, training, and policy enforcement will be crucial for successfully integrating KMC into routine neonatal care practices.

Keywords: Feasibility, Implementation, Kangaroo Mother Care, NICU

INTRODUCTION

Kangaroo Mother Care (KMC) is a widely recognized and essential method for improving the survival rates and health outcomes of preterm and low birth weight infants. Originating in the late 1970s in Colombia as an alternative to costly incubator care, KMC emphasizes prolonged skin-to-skin contact between the mother and her newborn. This practice is highly beneficial in promoting thermal regulation, breastfeeding, bonding, and overall development, particularly in resource-limited settings. The World Health Organization (WHO) has endorsed KMC as an effective, low-cost intervention to address the growing concern of neonatal mortality, especially in low- and middle-income countries (LMICs) where preterm birth complications are a leading cause of death. The role of healthcare providers, especially nurses and NICU staff, is pivotal in the successful implementation of KMC. Nurses are often the primary facilitators of the practice, educating NICU Staff nurses, ensuring proper positioning of the infant, and monitoring the newborn's progress. However, many nurses report inadequate training or outdated knowledge on the correct techniques for KMC. This lack of consistent, comprehensive training leads to varied levels of confidence and competency among staff, which ultimately affects the quality of care provided to both NICU Staff nurses and infants. Regular, structured training sessions are essential to standardize KMC practices and ensure that all staff are equipped to support NICU Staff nurses in this critical aspect of neonatal care.

BACKGROUND OF THE STUDY

Globally, around 15 million babies are born prematurely each year, with over 1 million deaths due to complications (WHO, 2020). 20.5 million infants are born with low birth weight annually, with 28% in South Asia (UNICEF, 2019). Preterm birth is the leading cause of under-five deaths worldwide, making up 47% of all such deaths (WHO, 2020). Kangaroo Mother Care (KMC) can reduce neonatal mortality by 40-50% among preterm infants, and global implementation could prevent over 450,000 deaths annually (WHO, 2020). KMC is especially effective in low- and middle-income countries, reducing infection, hypothermia, and respiratory distress in neonates. As of 2020, KMC had been adopted in 82 countries globally (WHO), though only 40% of eligible babies receive it. Scaling KMC in Sub-Saharan Africa could save \$4 billion in healthcare costs by minimizing the need for prolonged hospital stays (Save the Children, 2020).

NEED FOR THE STUDY

The rising incidence of preterm births and low birth weight infants presents a significant public health challenge globally, with India being one of the countries most affected. In Tamil Nadu, approximately **1 lakh** preterm infants are born each year, contributing to a high neonatal mortality rate. These vulnerable infants require specialized care to survive and thrive, and understanding the current practices, challenges, and perceptions surrounding Kangaroo Mother Care (KMC) is essential. Kangaroo Mother Care has emerged as an effective intervention for managing preterm and low birth weight

infants. It emphasizes skin-to-skin contact, which aids in thermal regulation, promotes breastfeeding, and enhances mother-infant bonding. Despite its benefits, KMC is not universally practiced in all healthcare facilities, particularly in lower-resource settings. This study aims to explore the gaps in the implementation of KMC and identify barriers that prevent its widespread adoption. The current healthcare landscape in Tamil Nadu necessitates an examination of KMC practices. Many healthcare professionals may not be fully aware of KMC's benefits or may lack adequate training in its application. By assessing the knowledge and attitudes of healthcare providers towards KMC, this study can provide insights into the existing barriers to implementation and identify opportunities for improvement.

STATEMENT OF THE PROBLEM

“A Study to Explore the Perception Regarding the Feasibility of Implementation of Kangaroo Mother Care in NICU at a Selected Tertiary Care Hospital”

RESEARCH QUESTION

What are the perceptions of healthcare providers regarding the feasibility of implementing Kangaroo Mother Care in the NICU, and what barriers and facilitators do they identify within the selected tertiary care hospital?

DELIMITATION:

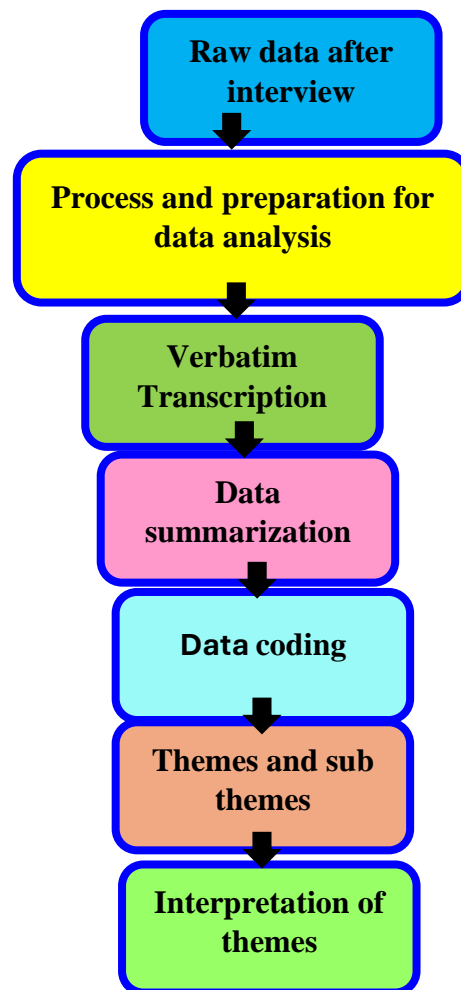
- ❖ Limited to NICU Staff Nurses only.
- ❖ The study period is limited to 4 weeks
- ❖ Limited size

MATERIALS AND METHODS

In this study, the researcher used a qualitative research approach. In this study, the researcher used a qualitative research approach. The study was conducted among NICU Staff nurses in a Tertiary care Centre at the Institute of Child Health, Egmore in Chennai. The study was conducted for 4 weeks. NICU Staff nurses in a Tertiary care Centre at the Institute of Child Health, Egmore in Chennai. All NICU Staff nurses at the Institute of Child Health, Egmore in Chennai. All NICU Staff nurses at the Institute of Child Health, Egmore in Chennai meeting the inclusion criteria and are also available at the time of the study. All NICU Staff nurses at the Institute of Child Health, Egmore in Chennai who are available during the period of study and who are willing to participate. In this study sample size consists of 8 NICU Staff nurses at the Institute of Child Health, Egmore in Chennai. Non-probability Purposive sampling technique was selected based on the objectives of the research. All NICU Staff Nurse with more than two years of work experience in the NICU were included in the study. Staff with less than two years work experience in the NICU • Staffs who were on absent or not willing to participate not included in the study.

ETHICAL CONSIDERATION

The study was carried out after obtaining an ethical clearance from the ethical committee and the Director ICH and HOD of the NICU, Institute of Child Health, Egmore, Chennai.

THEMATIC CONTENT ANALYSIS PRESENTATION

The data analysis was carried out in two sections A and B

Section A: Distribution of Demographic Variables of NICU Staff nurses

Section B: Narrative analysis of the study to explore the Perception Regarding the Feasibility of Implementation of Kangaroo Mother Care in NICU at the tertiary care centre, in Chennai.

FINDINGS OF DEMOGRAPHIC VARIABLES OF NICU STAFF NURSES

- ❖ Age: 50% of participants are under 30 years, while 37.5% are aged 30-40 years, and 12.5% are over 40 years.
- ❖ Sex: The participants are evenly split, with 50% male and 50% female.
- ❖ Educational Qualification: The highest percentage (37.5%) of participants hold a Bachelor's degree, followed by 25% with a Diploma and Master's degree each, and 12.5% with a Doctorate.
- ❖ Experience: Participants are divided into three experience categories, with 37.5% having 1-5 years of experience and over 10 years of experience, while 25% have 5-10 years of experience.
- ❖ Experience in NICU: 50% have less than 5 years of experience in NICU, while the other 50% have over 10 years.

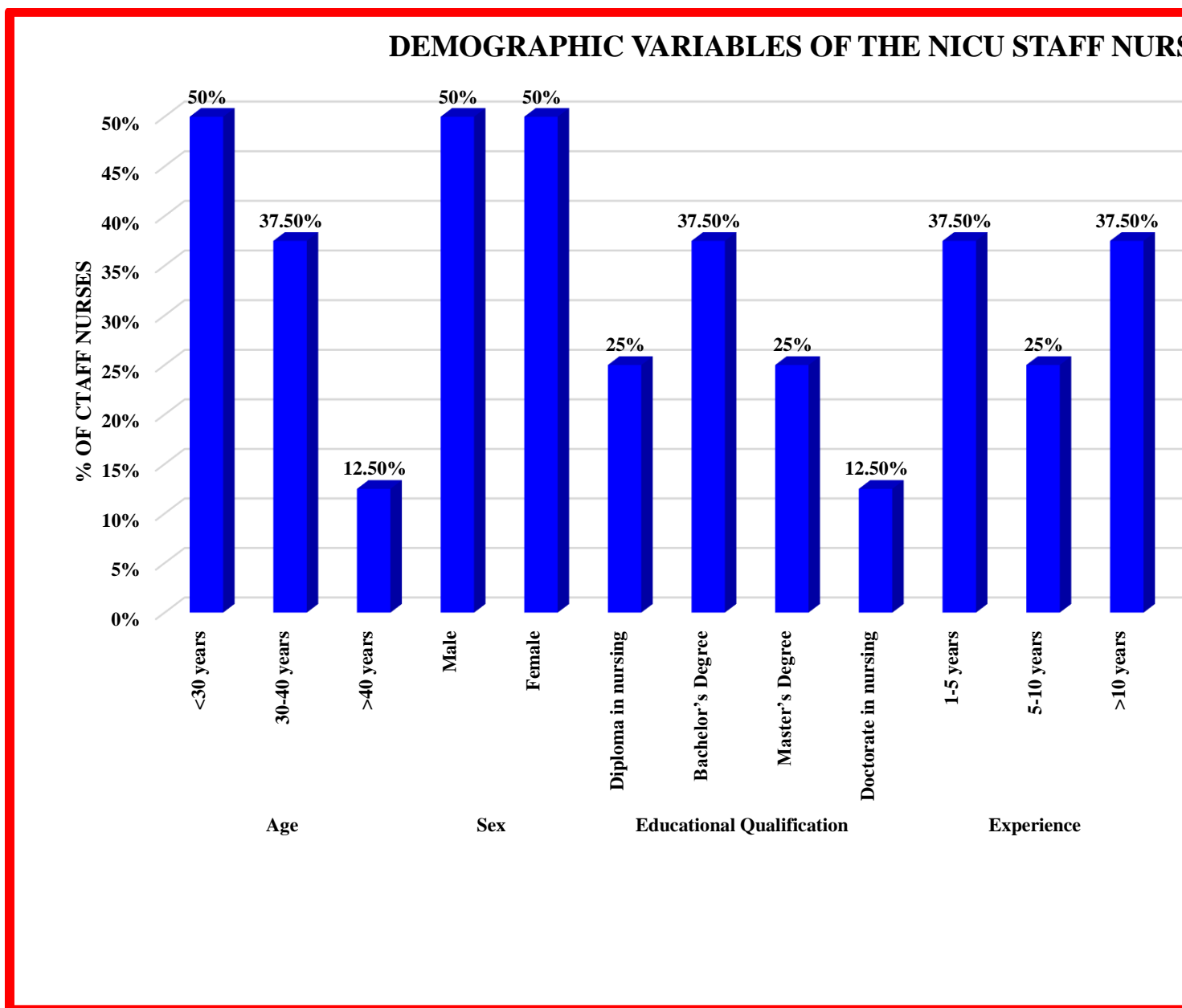


FIG.4.1. DEMOGRAPHIC VARIABLES OF THE NICU STAFF NURSE

SECTION-B-NARRATIVE ANALYSIS TO PERCEPTION REGARDING THE FEASIBILITY OF IMPLEMENTATION OF KANGAROO MOTHER CARE IN NICU**THEMATIC ANALYSIS**

The thematic analysis is a narrative summary by coding data that has been systematically grouped and categorized to get the essence of the theme.

INTRODUCTION TO THE SUBTHEME

The overall aim of the qualitative study was to explore the Perception Regarding the Feasibility of Implementation of Kangaroo Mother Care in NICU

Theme 1: Understanding of KMC and its Benefits**❖ Subtheme 1.1: General Knowledge of KMC**

All 8 participants demonstrated an understanding of the basic concept of KMC as a method that involves skin-to-skin contact to regulate the infant's temperature, support breastfeeding, and improve bonding between mother and child.

❖ Subtheme 1.2: Perceived Benefits of KMC

Participants noted various benefits of KMC, including physiological, emotional, and developmental advantages for the baby, as well as psychological benefits for the mother.

Theme 2: Training and Knowledge Gaps in KMC**❖ Subtheme 2.1: Inconsistent KMC Training**

A key finding was that not all participants had received formal training on KMC, and the availability of such training varied across the staff. Some had undergone training a long time ago, while others had not received any at all.

❖ Subtheme 2.2: Gaps in Knowledge and Confidence

Due to the inconsistent training, some staff members expressed a lack of confidence in fully implementing KMC. They were unsure about the duration and frequency of KMC or how to best instruct mothers on carrying it out.

Theme 3: Challenges in Implementing KMC in NICU**❖ Subtheme 3.1: Infrastructure and Resource Limitations**

The most common challenge reported was the lack of infrastructure to support KMC. Participants noted that the NICU often lacked dedicated areas for mothers to practice KMC, and there was insufficient privacy.

❖ Subtheme 3.2: Workload and Staffing Issues

Another significant barrier was the high workload and limited staffing. Participants felt that KMC required time and attention, which was difficult to manage in an already busy NICU.

Theme 4: Emotional Support and Motivation for KMC**❖ Subtheme 4.1: Positive Emotional Attitudes Toward KMC**

Despite the challenges, participants showed strong emotional support for KMC. They believed in its benefits and expressed a desire to see it implemented more regularly. The positive emotional impact on both mothers and babies was frequently mentioned.

❖ Subtheme 4.2: Practical Barriers to Emotional Support

While emotionally supportive of KMC, participants acknowledged that the practical barriers, such as lack of time and space, made it difficult to provide mothers with the emotional support they needed

Theme 5: Institutional Support and Policy Implementation**❖ Subtheme 5.1: Availability of KMC Guidelines**

Some participants mentioned that their NICU had official KMC guidelines, though the implementation and enforcement of these guidelines varied. There was inconsistency in how well the guidelines were followed or understood by all staff.

❖ Subtheme 5.2: Need for Stronger Institutional Support

Several participants emphasized the need for stronger institutional support, such as clearer policies, better enforcement of guidelines, and more resources dedicated to KMC.

NURSING IMPLICATIONS

Nursing implications involve applying research and evidence-based practices to enhance patient care. This includes assessing patient needs, implementing tailored interventions, and educating patients about their health. Nurses advocate for patients' well-being and ensure their voices are heard. Evaluating outcomes is essential for assessing intervention effectiveness, promoting continuous improvement in care delivery, and achieving optimal health outcomes.

NURSING EDUCATION:

Focus on evidence-based practices, critical thinking, and clinical skills to prepare students for real-world nursing challenges. Utilize high-fidelity simulations to enhance clinical skills and decision-making in a safe learning environment. Promote collaboration with other healthcare disciplines to foster teamwork and holistic patient care. Provide diverse clinical experiences in various settings, including hospitals, community health, and specialty areas.

NURSING ADMINISTRATION

Develop and implement policies that promote quality patient care and improve healthcare outcomes. Foster a positive work environment that encourages teamwork, collaboration, and employee satisfaction. Utilize data-driven decision-making to assess performance metrics and enhance operational efficiency. Ensure compliance with regulatory standards and accreditation requirements in healthcare facilities.

NURSING PRACTICE

Provide patient-centered care that respects individual preferences, needs, and values.

Conduct comprehensive assessments to develop effective care plans tailored to each patient. Administer medications and treatments safely while monitoring for adverse reactions. Educate patients and families about health conditions, treatment options, and self-care strategies. Collaborate with interdisciplinary teams to ensure holistic and coordinated patient care. Utilize evidence-based practices to guide clinical decision-making and improve patient outcomes.

NURSING RESEARCH

Formulate clear and relevant research questions that address significant nursing issues. Conduct thorough literature reviews to identify gaps in existing research and establish a theoretical framework. Utilize appropriate research designs, such as qualitative, quantitative, or mixed-methods, to effectively answer research questions.

Ensure ethical considerations are met, including obtaining informed consent and protecting participants' confidentiality.

RECOMMENDATIONS

Longitudinal Studies: Conduct longitudinal studies to assess the long-term impact of Kangaroo Mother Care (KMC) practices on neonatal outcomes, allowing for the observation of changes over time. **Mixed-Methods Approach:** Utilize a mixed-methods approach, combining quantitative surveys with qualitative interviews or focus groups, to gain a deeper understanding of the experiences and perceptions of healthcare providers and families regarding KMC. **Larger Sample Sizes:** Increase sample sizes to enhance the generalizability of findings and capture a more representative view of healthcare providers across diverse settings and regions.

LIMITATIONS

- **Sample Size:** Limited sample may reduce generalizability.
- **Cross-Sectional Design:** Establishes associations, not causation.
- **Self-Reporting Bias:** Data may be biased due to self-reports.
- **Contextual Factors:** May overlook cultural influences on KMC practices.
- **Time Constraints:** Limits depth of exploration for certain issues.
- **Geographic Focus:** Findings may not apply to other regions.
- **Response Rate:** Low response rates can affect validity.
- **Lack of Longitudinal Data:** No assessment of changes over time.
- **Training Variability:** Differences in provider training may influence outcomes.
- **Resource Availability:** Inconsistent resources can impact implementation.

CONCLUSION

The implementation of Kangaroo Mother Care (KMC) has shown significant potential in improving outcomes for preterm and low birth weight infants across various healthcare settings. This study highlights the importance of understanding the perceptions, barriers, and enablers associated with

KMC practices among healthcare providers. By identifying these factors, we can better address the challenges that hinder effective implementation and promote the adoption of KMC as a standard practice in neonatal care.

Furthermore, the findings emphasize the necessity of enhancing healthcare providers' knowledge and skills related to KMC through ongoing training and education. Empowering nurses and other healthcare professionals with the right tools and information will foster a supportive environment that encourages the practice of KMC. This not only improves maternal-infant bonding but also enhances breastfeeding success, which is crucial for the healthy development of vulnerable infants.

Lastly, it is essential for healthcare facilities to create a conducive environment for KMC by addressing infrastructural limitations and ensuring adequate staffing and resources. Institutional support, combined with community engagement, will play a critical role in overcoming barriers and sustaining KMC implementation. By prioritizing these efforts, we can significantly reduce neonatal mortality and morbidity, ultimately improving the health outcomes of infants in our care.

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