

Assess The Knowledge Regarding Kangaroo Mother Care Among Third Year BSc Nursing Students

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Abstract

Kangaroo Mother Care (KMC) is an essential practice in neonatal care, particularly for preterm and low-birth-weight infants, due to its significant benefits in promoting thermal regulation, breastfeeding, and bonding. Despite its importance, the level of knowledge regarding KMC among nursing students, who play a crucial role in neonatal care, remains uncertain. Understanding the knowledge base of future nurses on KMC is essential to identify gaps and enhance nursing education. Objective: This study aims to assess the knowledge of third-year BSc Nursing students on Kangaroo Mother Care, evaluating their understanding of its principles, benefits, implementation techniques, and potential challenges. A descriptive, cross-sectional study design was employed among a sample of third-year BSc Nursing students. A structured questionnaire was developed, covering various aspects of KMC, including its purpose, correct positioning techniques, duration, physiological benefits, and practical challenges. Data collection was conducted through self-administered questionnaire. The findings of the study highlighted the knowledge levels of nursing students regarding KMC, identifying both strengths and areas for improvement in their understanding of this crucial neonatal care practice. Preliminary results suggested that while many students are familiar with the basic principles of KMC, there are notable gaps in knowledge, particularly around specific implementation techniques and duration standards. The Conclusion of this study provides valuable insights into the current understanding of KMC among third-year nursing students. The results underline the need for enhanced training modules on KMC in nursing curricula to equip future nurses with the knowledge and skills necessary for effective neonatal care. Recommendations include integrating more hands-on training and case-based learning to strengthen practical competencies in KMC.

Keywords: Kangaroo Mother Care; Knowledge Assessment; BSc Nursing Students; Neonatal Care

Introduction

Kangaroo care named for a similarity to how certain marsupials carry their young ones after a short gestational period. It started 1970's in the care of preterm infants. It is also known as skin-to-skin care, is a method of holding a newborn that involves direct skin contact. There is evidence that is effective in reducing both death and the risk of hospital acquired infection. It is most commonly used for low-birth-weight preterm babies, who are more likely to suffer from Hypothermia while admitting to a neonatal unit to keep the baby warm and support early breast feeding. Previous studies have indicated a lack of comprehensive training on Kangaroo Mother Care in many healthcare curricula. Students often enter the workforce with insufficient understanding of evidence-based practices that can significantly improve neonatal care.

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Problem Statement

Kangaroo Mother Care is a crucial neonatal intervention. Developed as an alternative to incubator care, KMC includes skin-to-skin contact, exclusive breastfeeding, and early discharge with follow-up support. This approach not only promotes bonding and thermal regulation but also improves infant survival rates, growth, and development. As future healthcare providers, nursing students play a pivotal role in the implementation and advocacy of KMC. The knowledge and attitudes of nursing students towards KMC are instrumental in its successful integration into neonatal care. This study seeks to assess the knowledge of third-year BSc Nursing students on KMC, examining their understanding, awareness, and readiness to apply this vital practice in clinical settings. Understanding their knowledge level can provide insights into educational gaps and areas for enhancement in nursing curricula, aiming to improve neonatal care outcomes through informed and prepared healthcare professionals.

Review of Literature

A study conducted on Kangaroo Mother Care, randomized controlled trial on effectiveness of early Kangaroo Mother Care for the low-birth-weight infants. A study was conducted over a one-year period. This study implies that 95% of mothers reported that they

is most commonly used for low-birth-weight preterm babies, who are more likely to suffer from. The recent Survey found that 82% of neonatal Intensive care units use kangaroo mother care in the United States. The first trial of kangaroo mother care was Launched to address overcrowding, cross Infection poor prognosis and extremely high low birth weight mortality rate. A neonatal mortality from 70% to 30% years later kangaroo mother care is now Recognized by global. By assessing students' knowledge and addressing educational gaps, we can ensure that future healthcare providers are prepared to implement this life-saving practice effectively.

WHO estimate the globally about 25 million low birth weight babies are each year, consisting 17% of all live birth nearly 95% of them is developing countries. The Incidence of low birth weight where is widely between regions of the world worth Level of 32% in Southern Asia 9% in Eastern Asia 11 to 16% in Africa and 10-12% in Latin America. The Incidence of low-birth-weight babies in India is 30% of live birth. Infants who weigh less than 2.5 kg represent about 25% of all live birth in India in other studies conducted in such south India like Vellore, Tamil Nadu, Belgaum, Karnataka. The prevalence of low birth weight was 17%.

were happy to care for their low-birth-weight babies using the early Kangaroo Mother Care method. It was recommended to study the feasibility and effectiveness of Kangaroo Mother Care at the community level. An open randomized controlled trial was conducted to find out the effectiveness and safety of Kangaroo Mother Care in stable and preterm infants. The study found the Kangaroo Mother Care is effective for thermal control, breast feeding and bonding in all infants. It concludes that Kangaroo Mother Care delivers ideal conditions for stable and low birth weight infants to thrive, strengthens parental participation and empowerment and delivers high quality care. A prospective, comparative, descriptive study was conducted to assess the mother infant interaction and breast feeding outcomes (within) between uncomplicated, immediate postpartum mother and newborn, including being discharged together during post-partum period had significantly higher. It concludes that optimal maternal infant interactions as evidenced by higher scores on Barnard's NCAFS, were related to longer breast-feeding duration.

Methods & Materials

Research approach in this study descriptive study approach was descriptive research design is used. In this study attributed variables or demographic characteristics of students such as Age, gender, previous source of information. This study was conducted at 3rd year classroom of Smt. Nagarathamma College of

Nursing and the targeted population of the present study were the students. The Sample & Sample size included in this study sample were 40 students from 3rd year B.Sc. nursing by using Nonprobability convenient sampling technique was used to select the samples of this study. The data was collected from the nursing students by demographic & structured questionnaire where it consists of consists of characteristics of the

students such as age, gender, educational status and source of information and the knowledge questionnaire was prepared after going through an intensive review of literature including research articles and personal discussions with the guide. It included 30 questions related to Kangaroo Mother Care.

Results & Discussion

Table: Frequency and percentage distribution according to age group

| Socio-demographics variables | Frequency | Percentage |
|------------------------------|-----------|------------|
| Age in years | | |
| a) 18-22 | 40 | 100.0% |
| b) 22-24 | - | - |

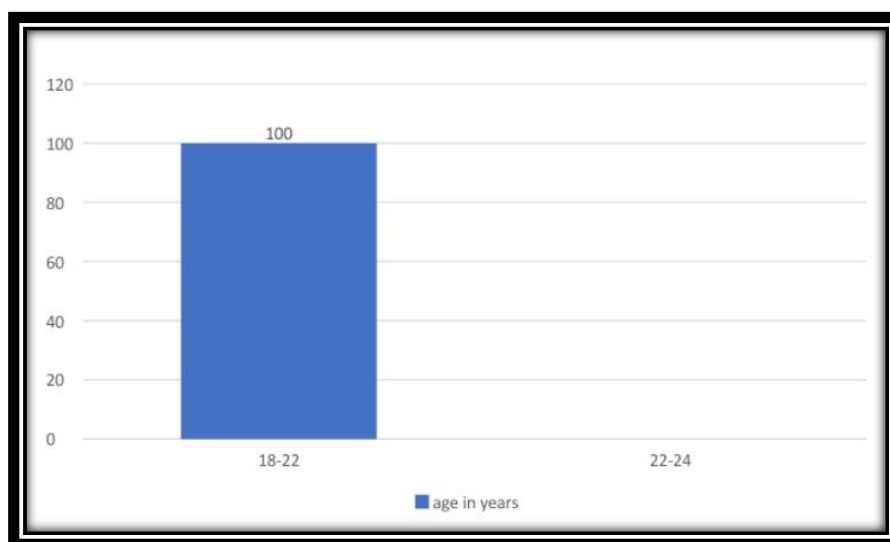


Figure -1: Frequency and percentage distribution according to age group

Based on the age of respondents, it can be interpreted that 100% students are between the age group of 18-22 years of age group had participated in this study.

Table 2: Frequency and percentage distribution according to gender

| Gender | Frequency | Percentage |
|-----------|-----------|------------|
| a) Female | 19 | 47% |
| b) Male | 21 | 53% |

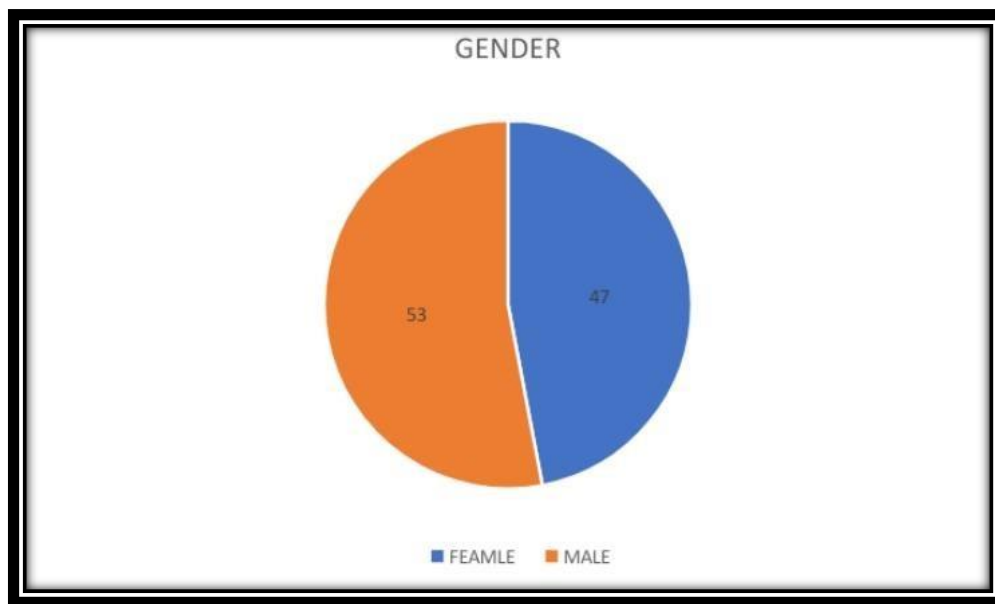


Figure 2: Frequency and percentage distribution according to gender

Interpretation

Based on the gender of respondents, it can be interpreted that 47% of the students are female and 53% students are males.

Table 3: Frequency and percentage distribution according to previous source of information.

| Previous source of information | Frequency | Percentage |
|--------------------------------|-----------|------------|
| a) Books | 16 | 40% |
| b) Mass media | 21 | 53% |
| c) Journals | 1 | 2% |
| d) Others | 2 | 5% |

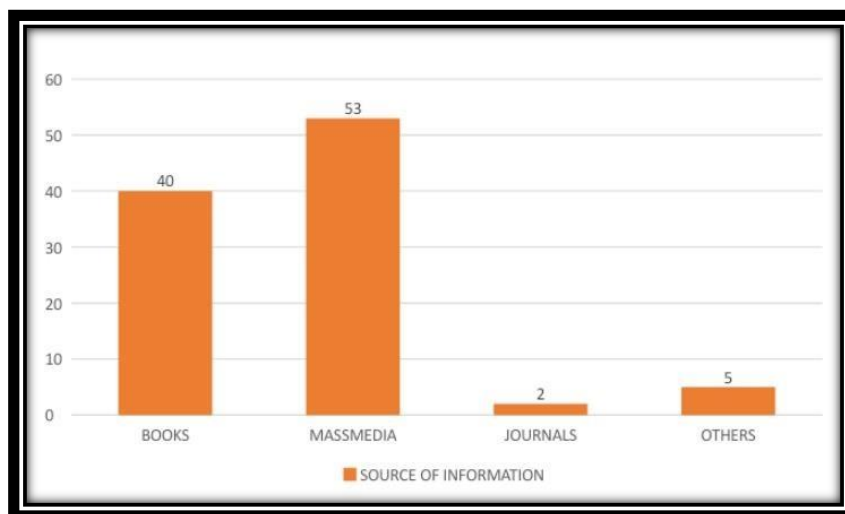


Figure 3: Frequency and percentage distribution according to previous source of information

It is from the above table that the maximum respondents 21[53%], had the source of information about Kangaroo Mother Care from mass media and 16[40%] from books

and 1[2%] had the source of information from journals and 2[5%] had the source of information from others.

Table 4: Frequency and percentage distribution of various levels of knowledge among students.

| Sl no. | Level of Knowledge | Score | Frequency | Percentage |
|--------|-------------------------------|-------|-----------|------------|
| 1. | Inadequate knowledge (<50%) | 0-14 | 26 | 65% |
| 2. | Moderately knowledge (51-75%) | 15-22 | 13 | 33% |
| 3. | Adequate knowledge (>75%) | 23-30 | 1 | 2% |

2% of students have adequate knowledge regarding Kangaroo Mother Care. About 33% of the students have a moderate knowledge and other 65% of students have

less or inadequate knowledge about Kangaroo Mother Care.

Table 5: Association between knowledge on Kangaroo Mother Care and selected demographic variables.

| Sl. no | Socio-demographic variables | Inadequate knowledge | Moderate Knowledge | Adequate knowledge | Chi square value (χ^2) | P value |
|--------|---------------------------------------|----------------------|--------------------|--------------------|-------------------------------|-------------------------------|
| 1 | Gender | | | | | |
| | Female | 13 | 5 | 1 | 1.596 df =1 | 0.450 |
| | Male | 13 | 8 | 0 | | |
| 2 | Previous source of information | | | | | |
| | Books | 9 | 7 | 0 | 21.277 df =2 | 0.0001 Significant |
| | Mass media | 15 | 6 | 0 | | |
| | Journals | 1 | 0 | 0 | | |
| | Others | 1 | 0 | 1 | | |

The study attempted to examine the assumptions or hypothesis.

Study Objectives

According to the findings, some characteristics, such as previous source of information, are consistent among all students. There is a significant association between the pre-test knowledge score on knowledge regarding Kangaroo Mother Care among 3rd year BSc Nursing

students of Smt. Nagarathnamma College of Nursing, Bengaluru. The students have adequate knowledge regarding Kangaroo Mother Care. In the study the frequency and percentage distribution of demographic variables of the 40 student nurses. The 40(100%) of subjects were in the age group of 18-22, 0(0%) of subjects were in the age group of 22-24, 19(47%) of the students were female and the rest of 21(53%) were male. According to source of information, students using mass media 21(53%) using Book 16 (40%) using

journals 1 (2%) others 2 (5%). The study was concluded that the students are having Inadequate knowledge on kangaroo mother care. Hence There is a significant association between the pre-test knowledge score on

knowledge regarding Kangaroo Mother Care among 3rd year BSc Nursing students of Smt. Nagarathamma College of Nursing, Bengaluru. The students have adequate knowledge regarding Kangaroo Mother Care.

Equation

| | | |
|--------------------|------------------------------------------------------|-----------------------------------------------------------------------------|
| Mean | $\bar{x} = \frac{\sum x}{n}$ | x = Observations given n = Total number of observations |
| Standard Deviation | $S = \sigma = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}$ | x = Observations given \bar{x} = Mean n = Total number of observations |

Acknowledgement

“Gratitude can never be expressed in words but, this is only the deep appreciation, which makes words to flow from one’s inner heart!”

This research here by prepared is not only the result of our effort but of collective efforts of many around me. We have made a considerable effort to acknowledge the many persons to whom we owe our gratitude. First of all, we express my sincere thanks to the Almighty God for his grace, his kindly help and blessings throughout the study without which nothing would have been possible. His presence gave me the strength to successfully complete the study. It is ours privilege to be a part of the institution and would like to express my sincere thanks and gratitude. I express my sincere and heartfelt thanks to Prof. Devi Nanjappan, Principal, Librarians, of Smt. Nagarathamma College of nursing Bengaluru, for their constant support and valuable guidance, throughout the period of study.

Declaration

We hereby declare that the research study titled A study to assess the knowledge regarding Kangaroo Mother Care among third year BSc Nursing students is a result of efforts and had been conducted. We affirm that the findings and conclusions derived from this research are based on accurate data collected from the participants, and appropriate research methodologies have been applied.

Author’s Contribution

Mrs. Keerthi Sudha. P created the conceptual framework and overall research strategy for the study. Literature evaluation in order to uncover gaps in the present understanding of the elements impacting academic performance, Ms. Oindrila Mitra did a

thorough evaluation of the body of existing literature in order to gather pertinent papers and theories that influenced the research topic. Methodology: Ms. Chinnu Abraham developed and carried out the research methodology, which included designing surveys, questionnaires, and data collection tools and making sure they were in line with the goals of the study. Data gathering: Mr. Alwin Roy, conducted data gathering, which included recruiting participants, administering questionnaires, and conducting interviews with undergraduate students while maintaining accuracy and ethical standards. Data Analysis: Mr. Mohammed Sinan Using both statistical and qualitative methods, Mrs. Keerthi Sudha. P examined the gathered data to find patterns, correlations.

Funding Statement

We have not received any external funding or financial support for conducting the assessment of knowledge regarding Kangaroo Mother Care among third year BSc Nursing students. Despite this, we are committed to proceeding with the study through available resources and institutional support, ensuring that the quality and integrity of the assessment are maintained."

Competing Interest

We hereby declare that all the authors conducted this study were interested in publishing this article.

Ethical Clearance

Received institutional ethical clearance.

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