Original Article
ISSN (Online): 2582-7472

ShodhKosh: Journal of Visual and Performing Arts
January-June 2024 5(1), 3121 –3125

A STUDY TO ASSESS THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON KNOWLEDGE REGARDING KANGAROO MOTHER CARE AMONG STAFF NURSES WORKING IN SELECTED HOSPITALS, AT JAIPUR

Chirag Ajmera [1], Dr. Jyoti Arora [2], Nikhil Taneja [3]

[1] Ph. D. Nursing Scholar, Tantia University, Sri Ganganagar, India
[2] Professor, Tantia University, Sri Ganganagar, India
[3] Ph. D. Nursing Scholar, Tantia University, Sri Ganganagar, India

DOI
10.29121/shodhkosh.v5.i1.2024.5660

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ABSTRACT

Kangaroo Mother Care (KMC) is an effective, low-cost, and evidence-based approach designed primarily for the care of low birth weight (LBW) and preterm infants. This method includes early, continuous, and prolonged skin-to-skin contact between the mother and the baby, along with exclusive breastfeeding. Numerous studies have demonstrated that KMC leads to improved thermoregulation, enhanced weight gain, increased rates of breastfeeding, and a significant reduction in neonatal morbidity and mortality. These outcomes are particularly vital in resource-limited settings like India, where access to incubators and advanced neonatal care is often limited.

Despite its well-documented benefits, the practice of KMC is not consistently implemented in many healthcare settings. One major barrier is the lack of awareness, knowledge, and confidence among healthcare providers—especially staff nurses who are directly involved in neonatal care. Addressing this knowledge gap is essential for improving the quality of care provided to LBW infants.

This study was undertaken to evaluate the effectiveness of a structured video-assisted teaching (VAT) program in enhancing the knowledge of staff nurses regarding KMC. A pre-experimental one-group pre-test–post-test design was used, involving 60 staff nurses at MJF Hospital, Jaipur. Participants were selected using purposive sampling. A structured questionnaire comprising 27 multiple-choice questions was administered before and after the educational intervention.

The results revealed a statistically significant improvement in knowledge following the video-assisted teaching. The mean pre-test score was 10.97 (40.63%), which increased to 23.3 (86.29%) in the post-test, with a calculated t-value of 6.77 ($p < 0.05$), indicating a highly significant difference. These findings strongly support the use of visual teaching strategies in nurse education. The study concludes that video-assisted teaching is a powerful tool for improving nurse knowledge and supports its integration into routine training to promote the widespread and effective practice of KMC, ultimately contributing to better neonatal health outcomes.

Moreover, this method of training can be adapted and implemented across various healthcare settings—from tertiary care centers to primary health centers—making it highly suitable for a country like India with wide disparities in healthcare access. The ability of video-based learning to provide consistent, repeatable, and visually engaging education makes it an ideal tool for in-service training, especially in busy clinical environments where time and resources for traditional classroom sessions are limited. Empowering nurses with practical, evidence-based knowledge through such accessible formats will not only improve their clinical competence but also encourage the adoption of KMC as a routine neonatal care practice. Ultimately, this contributes to the national goal of reducing neonatal morbidity and mortality through simple, sustainable, and family-centered interventions.

Keywords: Kangaroo Mother Care, Staff Nurses, Video-Assisted Teaching, Neonatal Care, Low Birth Weight, Knowledge Enhancement

1. INTRODUCTION

Low birth weight (LBW) is a pressing public health concern, especially in developing nations like India, where it contributes significantly to neonatal morbidity and mortality. According to the World Health Organization (WHO), India has one of the highest incidences of LBW infants globally, with approximately 7–10 million babies born underweight each year. These infants are at greater risk of complications such as hypothermia, infections, poor feeding, and even early death. In this context, Kangaroo Mother Care (KMC)—an intervention involving skin-to-skin contact between mother and baby, exclusive breastfeeding, and early discharge with proper follow-up—has emerged as an affordable, effective strategy to enhance the survival and well-being of these vulnerable neonates.

Although KMC has been endorsed globally, its implementation remains inconsistent in Indian hospitals. Based on the researcher's clinical observations at MJF Hospital, Jaipur, it was evident that many staff nurses lacked adequate knowledge and confidence to guide and support mothers in practicing KMC. Common barriers included insufficient training, misconceptions about KMC, high workload, and absence of institutional protocols promoting KMC in neonatal care settings.

Nurses, being the primary caregivers and educators in hospital settings, are ideally positioned to advocate for and implement KMC. However, without proper knowledge and training, their ability to influence outcomes is limited. Recognizing this gap, the present study aimed to assess whether a video-assisted teaching (VAT) program could effectively enhance staff nurses' knowledge of KMC. The intervention was designed to deliver standardized, visual, and practical information engagingly.

Video-assisted teaching is particularly beneficial in the Indian healthcare context due to its scalability, affordability, and ability to ensure uniform content delivery. Unlike traditional methods, VAT provides repeated exposure to concepts and supports visual memory, which is crucial for adult learners. It also facilitates self-paced learning and reduces the need for one-on-one instruction, thereby saving time and resources. By equipping staff nurses with essential knowledge and confidence through such interventions, hospitals can improve the quality of neonatal care, promote early mother-infant bonding, and contribute to reducing India's high neonatal mortality rate. Overall, the study emphasizes the urgent need to incorporate structured KMC training into routine nursing education and hospital practice.

2. NEED FOR THE STUDY

India continues to face a high burden of low birth weight (LBW) infants, with nearly 30% of live births classified as LBW. These infants are at increased risk for hypothermia, infections, feeding difficulties, and neonatal mortality. With limited resources and overcrowded neonatal units, the country's healthcare infrastructure often struggles to provide adequate care to this vulnerable population. Kangaroo Mother Care (KMC) offers a simple, cost-effective, and evidence-based solution to this issue. KMC has been proven to improve thermoregulation, enhance breastfeeding, promote bonding, reduce infections, and ultimately lower mortality rates in LBW infants. Despite its proven benefits, the actual implementation of KMC remains limited, especially in resource-constrained settings, primarily due to lack of awareness and training among healthcare professionals—particularly staff nurses. Nurses are at the forefront of neonatal care and play a pivotal role in educating and guiding mothers in KMC practices. However, studies and clinical audits have shown that many nurses lack adequate knowledge and confidence to initiate or promote KMC effectively. This gap highlights the urgent need for educational interventions, such as structured video-assisted teaching, to empower nursing staff and integrate KMC as a standard neonatal care practice in Indian hospitals.

During clinical postings at MJF Hospital, Jaipur, the investigator observed that many LBW and preterm infants were being treated in warmers due to hypothermia—an expensive and sometimes limited resource. Many families, particularly from low-income groups, struggled to afford prolonged NICU stays. Moreover, it was noted that staff nurses

had limited knowledge and training on KMC and were hesitant to promote it. Recognizing these challenges, the investigator identified a need to implement an affordable, scalable educational approach. Video-assisted teaching emerged as an ideal method to deliver consistent, repeatable training and enhance nurses' competency in promoting KMC for better neonatal outcomes.

Additionally, the use of video-assisted teaching allows for interactive and engaging content delivery, which helps in better comprehension and retention of information among nurses. It also overcomes the logistical challenges of repeated face-to-face training sessions, especially in busy hospital settings. With standardized video modules, hospitals can ensure all staff nurses receive uniform education regardless of shift timings or ward assignments. This approach is particularly beneficial in tertiary hospitals and government health institutions where staff rotation and workload are high. Furthermore, integrating such training into ongoing professional development can lead to sustainable improvements in neonatal care practices. By enhancing nurse-led KMC implementation, healthcare institutions can not only reduce the strain on technological resources like incubators but also improve mother-infant bonding and early breastfeeding initiation—both critical to newborn survival and well-being.

3. AIM OF THE STUDY

- To assess the effectiveness of video-assisted teaching on staff nurses' knowledge regarding Kangaroo Mother Care.
- To evaluate pre-test and post-test knowledge and determine the impact of the intervention.
- To promote best practices in neonatal care through education.

4. OBJECTIVES

- To assess pre-test knowledge of staff nurses regarding Kangaroo Mother Care.
- To find out the association between pre-test knowledge of staff nurses regarding kangaroo mother care and selected demographic variables.
- To assess post-test knowledge of staff nurses regarding Kangaroo Mother Care.
- To compare pre-test and post-test knowledge of staff nurses regarding kangaroo mother care.

5. RESEARCH METHODOLOGY

1) Research Type: Quantitative
2) Design: Pre-experimental (one-group pre-test-post-test)
3) Sample & Size: 60 staff nurses from MJF Hospital, Jaipur
4) Sampling Technique: Purposive sampling
5) Tool Description: Structured knowledge questionnaire with 27 MCQs
6) Reliability: KR-20 = 0.74
7) Pilot Study: Conducted on 10 nurses, confirming feasibility

6. RESULTS

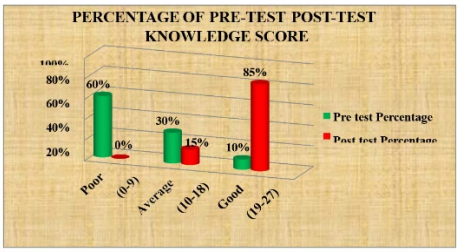

Figure 1 Pre-test vs Post-test Knowledge Score Distribution (Bar Graph)

Table 1 Comparison between pre-test and post-test knowledge score of staff nurses

Score	Pre-test		Post-test	
	Frequency	Percentage	Frequency	Percentage
Poor (0-9)	36	60%	0	0%
Average (10-18)	18	30%	9	15%
Good (19-27)	6	10%	51	85%

Table 2 Mean, mean difference, mean percentage, mean percentage difference and t- value of pre-test and post-test knowledge score of staff nurses

Knowledge area	Mean	Mean difference	Mean percentage	Mean percentage difference	t - value
Pre-test	10.97	12.33	40.63%	45.66%	6.77
Post-test	23.3		86.29%		

The study demonstrated that video-assisted teaching significantly improved the knowledge of staff nurses regarding Kangaroo Mother Care (KMC). Out of 60 participants, 60% had poor knowledge in the pre-test, and only 10% had good knowledge. After the intervention, 85% of nurses achieved good knowledge scores, with none remaining in the poor category. The mean knowledge score increased from 10.97 (SD = 3.63) to 23.3 (SD = 2.8), with a statistically significant t-value of 6.77 ($p < 0.05$), confirming the effectiveness of the video-based educational strategy. Additionally, better post-test performance was associated with higher qualifications, longer clinical experience, and prior participation in short-term courses. These findings emphasize the value of structured, visual teaching tools in enhancing nursing knowledge and promoting best practices in neonatal care, particularly in resource-limited settings.

7. DISCUSSION

The findings of this study validate the hypothesis that structured video-assisted teaching (VAT) is an effective educational strategy to enhance the knowledge of staff nurses regarding Kangaroo Mother Care (KMC). The significant improvement in knowledge—from a mean pre-test score of 10.97 (40.63%) to a mean post-test score of 23.3 (86.29%)—indicates a strong positive impact of the intervention. The statistical analysis, with a calculated t-value of 6.77 ($p < 0.05$), further confirms that this improvement is not due to chance but is the direct result of the educational tool used.

The success of the VAT approach aligns with previous research. Studies by Kiran et al. (2021) and Shanti et al. (2020) also reported significant improvements in nurses' knowledge and practices after structured teaching and video-based educational programs. These results reinforce the value of visual learning, especially in clinical settings, where staff often learn best through demonstration and repetition rather than traditional lecture-based methods.

The current study also revealed associations between better knowledge scores and factors such as higher professional qualifications (e.g., M.Sc. Nursing), greater clinical experience, and participation in short-term courses. This suggests that ongoing professional development enhances learning outcomes, and tailored education based on the learner's background can maximize effectiveness.

Importantly, video-assisted teaching is not only effective but also highly scalable and cost-efficient. It can be implemented across various healthcare settings—urban, rural, well-equipped, or resource-constrained. Once developed, video modules can be reused with large groups of learners, ensuring consistency and reducing training costs.

Therefore, integrating video-assisted modules into routine in-service training for nurses—especially in neonatal intensive care units (NICUs), postnatal wards, and community health programs—can strengthen the implementation of KMC and improve neonatal outcomes across India. These findings provide a compelling case for health institutions to adopt structured VAT programs as a part of ongoing nurse education.

8. CONCLUSION

This study provides strong evidence that video-assisted teaching (VAT) is an effective and practical educational tool for enhancing the knowledge of staff nurses regarding Kangaroo Mother Care (KMC). The remarkable improvement in post-test knowledge scores—from a pre-test mean of 10.97 to a post-test mean of 23.3—clearly indicates that structured, visual learning significantly improves comprehension and retention among nursing professionals. These findings validate the effectiveness of VAT in bridging the existing knowledge gap among frontline healthcare providers who are critical to the implementation of KMC in neonatal care.

KMC, as described in the study, is a simple, affordable, and life-saving intervention that involves skin-to-skin contact, exclusive breastfeeding, and early discharge with follow-up. It requires minimal infrastructure and can be practiced in both hospital and home settings, making it particularly suitable for low-resource environments like many regions in India. Despite its proven benefits, the underutilization of KMC is largely attributed to inadequate training and awareness among nursing staff. The study demonstrates that targeted educational strategies such as VAT can empower nurses with the necessary knowledge and confidence to promote and implement KMC effectively.

Furthermore, the scalability and repeatability of video-assisted modules make them ideal for large-scale training programs. Hospitals, nursing colleges, and healthcare administrators should consider integrating such modules into their in-service training schedules and academic curricula. This will not only standardize the knowledge base of nursing professionals but also contribute significantly to reducing neonatal morbidity and mortality. By strengthening nurse-led KMC practices, the healthcare system can ensure better survival and developmental outcomes for low birth weight and preterm infants across India.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

REFERENCES

Singh M. Care of the Newborn. 6th ed. New Delhi: Sagar Publications; 2004.
Ghai OP, Gupta P, Paul VK. Essential Pediatrics. 6th ed. New Delhi: CBS Publishers; 2005.
Parthasarathy A. IAP Textbook of Pediatrics. 3rd ed. New Delhi: Jaypee Brothers; 2007.
Guha DK. Neonatology: Principles and Practice. 2nd ed. New Delhi: Jaypee Brothers; 2004.
Shetty A. Low Birth Weight—The Role of Nursing. Indian J Neonatol. 2007;12(3):151-6.
Kiran B, Mamta. Effectiveness of Structured Teaching Program on KMC. Int J Nur Edu. 2014;6(2):89–94.
Nanavati RN et al. KMC and Pain Relief in VLBW Neonates. Indian Pediatr. 2013;50:23–7.
Muddu GK et al. KMC Awareness in Preterm Infant Mothers. Indian J Neonatol. 2013;5(1):45–9.
Mallet I et al. Barriers to KMC Implementation. J Perinatol. 2007;27(8):490–5.
Shanti MD, Vani K. VAT Program on Newborn Care. Indian J Nursing. 2013;4(2):12–8.