

## ORIGINAL RESEARCH

# A Study of Knowledge and Perception of Healthcare Workers Regarding Kangaroo Mother Care in A Tertiary Care Hospital

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### ABSTRACT

**Background:** Kangaroo Mother Care is a globally acknowledged method for newborn care, especially for preterm and low birth weight infants. This approach emphasizes continuous skin-to-skin contact, exclusive breastfeeding, and early discharge. While KMC has proven benefits, its successful implementation hinges on the knowledge and practices of healthcare workers. **Objectives:** To assess the knowledge and determine perception of health care workers regarding KMC. **Methods:** This study was conducted in C.U. Shah Medical college, Surendranagar, Gujarat. A structured web-based questionnaire was used to collect data from nurses and doctors willing to participate. The study explores participants' familiarity with KMC protocols, attitudes towards its integration into routine neonatal care, and identifies potential barriers or facilitators. **Results:** Among 50 respondents, the majority were nurses (55.3%), with positive attitudes toward KMC. Over 95% recognized its benefits, yet challenges like limited accessibility were noted. 75% health care workers have perception that KMC is only useful in infants having birth weight less than 2.5 kg. More than 85% health care workers agreed that KMC was practiced regularly in their wards. The study suggests the need for targeted interventions and guidelines. **Conclusion:** The study concludes that healthcare personnel in Pediatric/Neonatology and Gynecology/Obstetric wards at C.U. Shah Medical College are familiar with KMC, exhibiting satisfactory knowledge and positive attitudes. However, it emphasizes the importance of proper training and guidelines, especially for nursing staff, to encourage KMC's use and calls for dedicated KMC units in Indian health centers.

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### INTRODUCTION

Kangaroo Mother Care (KMC) is a globally recognized and evidence-based approach to newborn care, particularly for preterm and low birth weight infants.<sup>1</sup> This method involves continuous skin-to-skin contact between the mother and her infant, along with exclusive breastfeeding and early discharge from the hospital. KMC has been shown to have numerous benefits for both preterm infants and their mothers, including improved thermal regulation, enhanced bonding, and better overall neonatal outcomes.<sup>2</sup> While the effectiveness of Kangaroo Mother Care has been established, its successful implementation relies heavily on the knowledge, attitudes, and practices of healthcare workers involved in neonatal care.<sup>3</sup>

These frontline healthcare professionals play a crucial role in promoting and facilitating KMC within a hospital setting. In a tertiary care hospital, where

complex medical conditions and high-risk pregnancies are often managed, the adoption of KMC can present unique challenges and opportunities.<sup>4</sup> Understanding the knowledge and perceptions of healthcare workers regarding KMC is essential for designing targeted interventions to promote its consistent and optimal implementation.<sup>5</sup>

This study aims to explore the current state of knowledge and perception among healthcare workers in a tertiary care hospital regarding Kangaroo Mother Care. By assessing their familiarity with KMC protocols, gauging their attitudes towards its integration into routine neonatal care, and identifying potential barriers or facilitators, this research seeks to inform strategies for improving the implementation of KMC in the hospital setting.

The findings of this study are anticipated to provide valuable insights for healthcare administrators,

policymakers, and educators aiming to enhance the quality of neonatal care. By addressing gaps in knowledge and understanding the factors influencing healthcare

**AIMS AND OBJECTIVES**

- To assess the knowledge of health care workers regarding KMC
- To determine perception of health care workers regarding KMC

**MATERIALS AND METHODS**

This study was conducted in C.U. Shah Medical college, Surendranagar, Gujarat. A structured web-based questionnaire was used to collect data from nurses and doctors willing to participate. Authors designed data collection tool. It contains three main parts: 1) demographic and work-related data, including gender, age, marital status etc. 2) knowledge about KMC, including the impact of KMC on bonding of mother-infant and effectiveness of breastfeeding. 3) Perception of KMC about participation in a relevant continuing education program and the interactions with parents regarding

KMC (through providing instruction, providing help in practice or adopt KMC practice) barriers to KMC practice, including the difficulties in providing privacy for parents during KMC. Then the responses were collected and analysed.

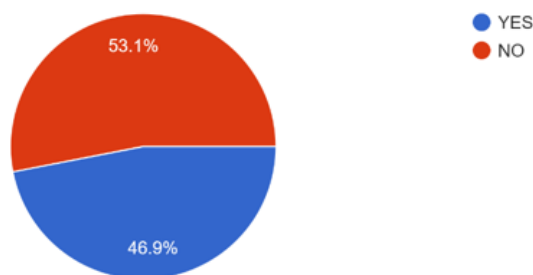
**RESULTS**

A total of 50 Healthcare workers responded, amongst them 55.3% were nurses and others were doctors. Majority were females (64.6%) and worked at C U SHAH medical college and hospital. More than two third of participants were of younger age (<25 years) and unmarried.

**KNOWLEDGE OF KMC**

Out of All participants more than 95% believed that KMC increase maternal-fetal bonding, effectiveness of breast feeding , maintain child temperature , Heart rate, respiratory rate , encourage the parents to adopt KMC and 98% participants believed that KMC is most satisfactory if easily accessible but they also give opinion as follow :

It would be overload to the health workers if KMC is made easy accesible  
49 responses



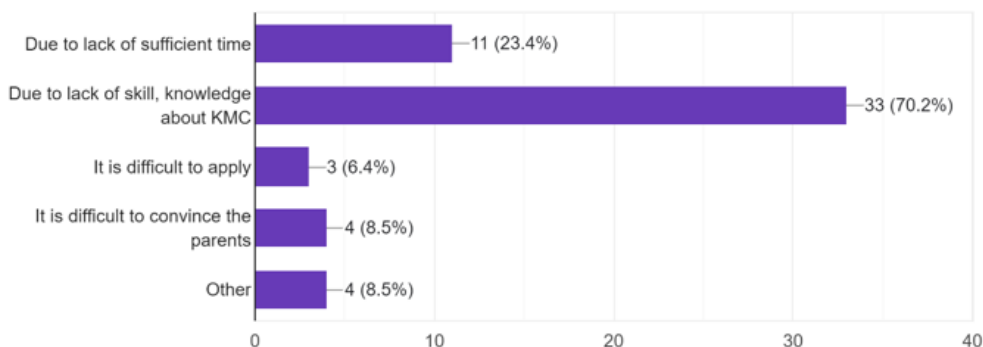
**Figure**

About 75% health care workers have perception that KMC is only useful in infants having birth weight less than 2.5 kg.

**PERCEPTION OF KMC**

More than 85% health care workers agreed that KMC was practiced regularly in their wards According to the participants KMC is not easily assesible due to

KMC is not easily assesible  
47 responses



**Figure**

Similarly, 85% participants helped fathers to participate in KMC.

## DISCUSSION

Kangaroo Mother Care (KMC) is more useful for developing countries like India where incubator or such advance services is still out of reach for majority of the rural populations.[6] In the present study, almost all the participants have heard of KMC, and their knowledge and attitude toward KMC was found to be positive. Bang KS in a study done in the hospitals of Korea mentioned that nurses and doctors agreed that Kangaroo mother care promoted attachment and parental confidence as well as physical health of the infants. Knowledge, Attitude and Practice towards Kangaroo Mother Care Bera *et al.* in their study on effect of KMC on vital physiological parameters of the low birth weight newborn in India found improvement in all 4 recorded physiological parameters- temperature, respiratory rate, heart rate and oxygen saturation(SpO<sub>2</sub>) during KMC session.<sup>7</sup> These benefits were well perceived by our participants, as majority of them believed that KMC has good effect in baby's health, like it maintains child's temperature, heart beat and respiration. An Australian study done by Chia *et al.* revealed that all of the nurses who participated in the study assisted and encouraged parents to provide KMC and the majority agreed on the benefits of KMC for both infants and parents, found facilitating KMC professionally satisfying. Nearly 100% who participated in our study said they encouraged the mother especially of low birth weight babies about practicing Kangaroo care. The findings of our study also corroborates with the study done by Mudduet *al.* at a teaching hospital in India where they concluded that mothers of preterm babies can understand and implement KMC with simple and clear oral instructions in local language, positive feeling being developed even with one hour session on KMC.[8]It is important to highlight the importance of counselling by health personnel to discharging mothers.<sup>9</sup> Srinath *et al.* in their study "Kangaroo care by father and mothers: comparison of physiological stress responses in preterm infants" found no significant difference in physiological and stress responses following KMC or Kangaroo Father Care (KFC) in preterm neonates, concluding that KMC may be as safe and effective.<sup>10</sup>

## CONCLUSION

Majority of the healthcare personnel working in Pediatric/Neonatology and Gynecology/Obstetric wards in our study have heard of Kangaroo mother care. Overall knowledge and attitude toward KMC was found satisfactory. They were eager to learn more about KMC. As nursing staff spend more time with the mothers, they should be well informed and trained about the benefits of KMC. Since almost all participants believe that KMC is beneficial to the infants and its uses should be encouraged, it is important to have proper guideline and separate Kangaroo mother care unit in health centers in india.

## REFERENCES

- [ Dhage VD, Rannaware A, Choudhari SG. Kangaroo Mother Care for Low-Birth-Weight Babies in Low and Middle-Income Countries: A Narrative Review. *Cureus*. 2023 Apr 30;15(4):e38355. doi: 10.7759/cureus.38355. PMID: 37274008; PMCID: PMC10232296.]
- The beneficial effect of early and prolonged kangaroo mother care on ... Available at: <https://onlinelibrary.wiley.com/doi/10.1111/apa.16939> (Accessed: 13 January 2024). ]
- [Chan G, Bergelson I, Smith ER, Skotnes T, Wall S. Barriers and enablers of kangaroo mother care implementation from a health systems perspective: a systematic review. *Health Policy Plan*. 2017 Dec 1;32(10):1466-1475. doi: 10.1093/heapol/czx098. PMID: 28973515; PMCID: PMC5886293.]
- Smith ER, Bergelson I, Constantian S, Valsangkar B, Chan GJ. Barriers and enablers of health system adoption of kangaroo mother care: a systematic review of caregiver perspectives. *BMC Pediatr*. 2017 Jan 25;17(1):35. doi: 10.1186/s12887-016-0769-5. PMID: 28122592; PMCID: PMC5267363.]
- [Pratomo H, Amelia T, Nurlin F, Adisasmita AC. Knowledge and perceptions of kangaroo mother care among health providers: a qualitative study. *Clin Exp Pediatr*. 2020 Nov;63(11):433-437. doi: 10.3345/cep.2018.06506. Epub 2020 Jul 21. PMID: 32718148; PMCID: PMC7642137.]
- Department of Reproductive Health and Research, World Health Organization: A kangaroo mother care, practical guide. Geneva Switzerland; 2003;1-10.
- Bera A,Ghosh J,Singh AK, Hazra A,Som Munian IEffect of Kangaroo Mother Care on vital physiological parameters of the low birth weight newborn. *Indian J Community Med*. 2014;39(4):245–249
- Nguah SB, Wobil PNL, Obeng R, Kerber KJ, Lawn JE, Plange-Rhule G. Perception and practice of Kangaroo Mother Care after discharge from hospital in Kumasi, Ghana: A longitudinal study. *BMC Pregnancy Child birth*.2011;11:99
- Muddu GK, Boju SL, Chodavarapu R. Knowledge and awareness about benefits of Kangaroo Mother Care. *Indian J Pediatr*. 2013;80(10):799-803
- Srinath KB, Shah J, Kumar P, Shah PS. Kangaroo care by fathers and mothers: comparison of physiological and stress responses in preterm infants. *J Perinatol*. 2016;36(5):401-4.