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Healthcare workers attitude regarding kangaroo mother care in Nyeri county referral hospital, Kenya.

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Abstract

Background: Kangaroo Mother Care (KMC) is a system used for the care of preterm babies and low birth weight babies. The World Health Organization (WHO) recommends the use of KMC to help achieve Sustainable Development Goal (SDG) 3.2, with an aim of reducing neonatal mortality to 12 per 1,000 live births per country. Healthcare workers play a significant role in initiating, supporting and sustaining the practice of KMC. This study assessed the healthcare workers attitude regarding KMC in Nyeri county referral hospital, Kenya.

Methods: This was a cross sectional descriptive survey study. Census sampling method was used to recruit 28 respondents. A researcher administered questionnaires were used to collect data. Analysis was done using SPSS software Version 26. Descriptive statistics and chi-square tests were used for analysis.

Results: The study found that 89% (n=25) of the respondents had a positive attitude about KMC practice. Half of all the healthcare workers 50% (n= 14) had received training on KMC. Majority of the healthcare workers 71% (n=25) preferred incubators over KMC. However there was no significant relationship between ($X^2 = 0.700$, $df = 1$, $p = 0.403$) training of healthcare worker and KMC adoption.

Conclusion: The study concluded that the healthcare workers had a positive attitude towards KMC. Half of them had received training on KMC however, majority preferred incubators over KMC. The study recommends KMC sensitization seminars and continuous training of healthcare workers on KMC. Establishment of excellent centers as a way of motivating them is also recommended.

Keywords: Kangaroo mother care; Attitude; Healthcare workers; County referral; Hospital

1 Introduction

Globally, approximately 15 million babies are born prematurely. The most common cause of death in children under the age of five is complications from preterm birth which accounts for 2.4 million deaths globally [1]. Preterm births account for between 5% and 18% of all live births in 184 countries around the world [2].

Sub-Saharan Africa had the highest neonatal mortality with 27 per 1000 live births (43%) followed by Central and Southern Asia with 23 deaths per 1000 live births [3]. In Kenya, neonatal mortality rate stands at 20.4 deaths per 1000 live births [4].

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Kangaroo Mother Care (KMC) is a system used for the care of preterm babies and low birth weight babies. It involves the mother or any caregiver to maintain a skin to skin contact with the baby. If KMC is initiated immediately after birth, it has the potential to save up to 150,000 additional lives each year [5]. The World Health Organization (WHO) recommends the use of such strategies to help achieve Sustainable Development Goal (SDG) 3.2, which aims to reduce neonatal mortality to 12 per 1,000 live births per country [6].

Healthcare workers play a significant role in initiating, supporting and sustaining the practice of KMC [7]. They disseminate KMC knowledge and train caregivers to practice KMC [8]. The motivation and willingness of healthcare providers to KMC is critical to effective implementation of KMC at the facility level [9]. Majority of healthcare workers who believe KMC is effective are more likely to encourage and support its provision to caregivers [10]. As a result, healthcare workers' attitude and beliefs influence KMC adoption and utilization [11].

KMC has an overall acceptability among healthcare workers however, limited knowledge and a lack of belief in KMC restricted its uptake among them [12]. Workload was also perceived to be a barriers to supporting KMC to many healthcare workers as they believed that its implementation would increase workload [13]. However for those with previous experiences who had seen the benefits of KMC such as facilitating mothers to recover emotionally and physically and positive effect on the infant it became an enabling factor as it was perceived as a therapeutic mechanism for the parents [14].

To effectively implement KMC the right attitude and practices are needed from the nurses [4]. Previous studies done on knowledge and attitude of nurses showed that majority of nurses had a positive attitude towards KMC but lacked knowledge on its benefits and how to ensure a successful implementation. A need for KMC to be part of the nursing curricula together with regular in service training on KMC especially to the new nurses was proposed as part of the interventions required to improve knowledge which will improve their attitude [16]. KMC information and skills of maternity nurse ward nurses should be continuously updated to implement KMC efficiently and effectively [17]. Therefore, the study assessed how attitude of healthcare workers influence Kangaroo Mother Care adoption in Nyeri County referral hospital.

2 Methodology

The study adopted a cross sectional descriptive survey design that employed a quantitative approach to assess the healthcare workers attitude regarding KMC at Nyeri County referral hospital. The hospital is the main referral hospital in Nyeri County and it offers basic and specialized care for newborn babies to include preterm infants thus making it suitable for this study. The study population comprised of healthcare workers in the working in the NBU at the time of the study. Census sampling was used to recruit 28 respondents. They included healthcare workers who consented to the study and had worked in the newborn unit for more than six months. The study used researcher- administered structured questionnaires.

Attitude was assessed using a 5 point likert scale to categorize attitude as either positive or negative. Eleven question items were formulated where each health worker was supposed to either strongly disagree, disagree, not sure, agree or strongly agree. For the participants who responded strongly disagree, disagree and not sure they were grouped together, and the participants were categorized as having negative attitude. For the participants who responded strongly agree and agree, they were grouped together and categorized as having a positive attitude. The study period was between July 2022 and August 2022. SPSS Software Version 26 was used to clean, code, and input the data for analysis at a significance level of $p < 0.05$. Results were presented as graphs, tables, frequency distributions, and percentages. At a 95% confidence level, the association between the variables was tested using the chi square. In order to determine the strength of the connection, logistic regression was used to variables that reached statistical significance. Figures, tables, and narratives were used to present the data.

3 Results

The study sought to investigate the attitude of health workers on KMC. A 5 point likert scale was used to categorize attitude as either positive or negative. Eleven question items were formulated where each health worker was supposed to either strongly disagree, disagree, not sure, agree or strongly agree. For the participants who responded strongly disagree, disagree and not sure they were grouped together, and the participants were categorized as having negative attitude. For the participants who responded strongly agree and agree, they were grouped together and categorized as having a positive attitude. (Table 1).

Table 1 Attitude of healthcare workers towards KMC

| | N | Strongly disagree | Disagree | Not sure | Mean | Agree | Strongly Agree | Mean |
|--|----|-------------------|----------|----------|------|-------|----------------|------|
| Kangaroo Mother Care should be encouraged for care of preterm infants | 28 | 3.6 | 0 | 3.6 | 7.2 | 17.9 | 75 | 92.9 |
| Kangaroo Mother Care is affordable and has a positive effect on the growth of the preterm baby | 28 | 3.6 | 0 | 3.6 | 7.2 | 7.1 | 85.7 | 92.8 |
| Kangaroo Mother Care led to a lower risk of hypothermia and infections in infants | 28 | 3.6 | 3.6 | 0 | 7.2 | 10.7 | 82.1 | 92.8 |
| Kangaroo Mother Care led to a lower risk of hypothermia and infections in infants | 28 | 3.6 | 0 | 0 | 3.6 | 21.4 | 75 | 96.4 |
| Kangaroo Mother Care reduces the workload and is cost effective to both the mother and the institution | 28 | 14.3 | 14.3 | 0 | 28.6 | 10.7 | 60.7 | 71.4 |
| Kangaroo Mother Care training should be done to all health care workers | 27 | 3.7 | 7.4 | 3.7 | 14.8 | 7.4 | 77.8 | 85.2 |
| Kangaroo Mother Care is professionally satisfying | 28 | 10.7 | 14.3 | 3.6 | 28.6 | 10.7 | 60.7 | 71.4 |
| Kangaroo Mother Care does not consume a lot of time and do not require extra staff | 28 | 7.1 | 0 | 7.1 | 7.1 | 14.3 | 1.4 | 92.8 |
| Kangaroo Mother Care is not possible in the present times | 28 | 3.6 | 0 | 7.1 | 3.6 | 21.4 | 67.9 | 96.4 |
| Use of incubators is more preferable than Kangaroo Mother Care | 28 | 14.3 | 0 | 14.3 | 14.3 | 21.4 | 50 | 85.7 |
| Kangaroo Mother Care requires more resources to practice | 28 | 25 | 71.4 | 0 | 3.6 | 3.6 | 0 | 96.4 |
| Total | | | | | 11% | | | 89% |

From the study, on average, n=25 (89%) of the health care workers displayed a positive attitude, while n= (11%) had a negative attitude.

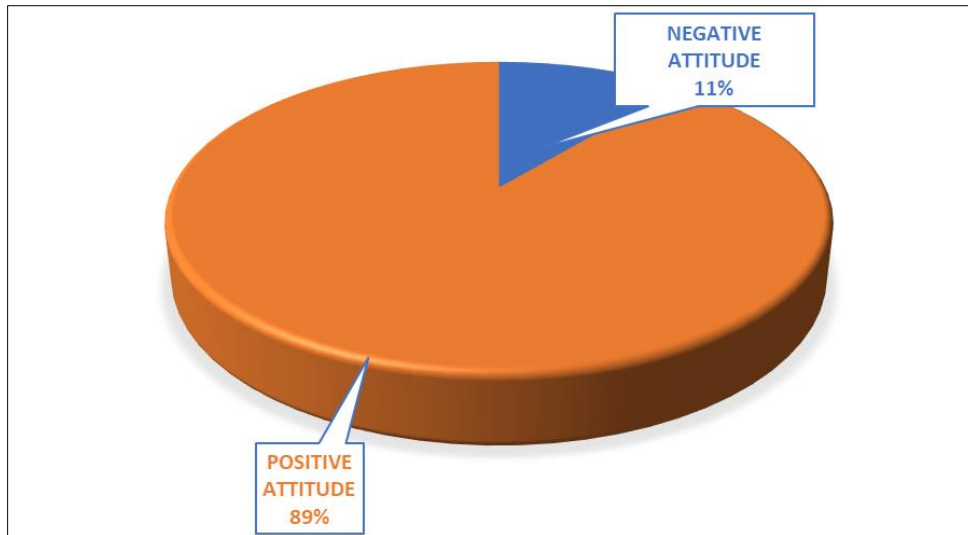


Figure 1 Summary on respondents' attitude

Results showed that majority 71% (n = 20) of the health care workers preferred incubators, while 29% (n = 8) preferred KMC. On training, the study findings showed that both the ones who had training and those who did not were at 50% (n = 14). (Table 2).

Table 2 Factors associated with the healthcare workers' attitude towards adoption of KMC

| | Frequency (F) | Percentage (%) |
|--------------------------------|---------------|----------------|
| Which is your preferred method | | |
| Incubator | 20 | 71 % |
| KMC | 8 | 29 % |
| Are you trained on KMC | | |
| Yes | 14 | 50 % |
| No | 14 | 50 % |

Chi-square tests were conducted to determine the relationship between healthcare workers training and KMC adoption. Results in Table 3 shows that there was no significant relationship between healthcare workers training and KMC adoption ($p = 0.403 > 0.05$). This was an indication that training of healthcare workers did not influence KMC adoption.

Table 3 Chi-square results between healthcare workers training and KMC adoption

| Healthcare workers training (n=28) | | | | Statistics |
|------------------------------------|-----------|---------|--------|--|
| Preferred method of infant care | | Yes | No | $X^2 = 0.700$ $df = 1$ $p = 0.403$ |
| | KMC | 3(38%) | 5(62%) | |
| | INCUBATOR | 11(55%) | 9(45%) | |

4 Discussion

The study included 28 participants. Majority 89% (n=25) of the healthcare workers had a positive attitude on the use of KMC and agreed with the fact that it was beneficial to the infant, the caregivers and the institution. These findings were slightly lower compared to findings from other studies that showed a 100% positive attitude among healthcare workers. However, another study also concluded that healthcare workers in general had a positive attitude of KMC as they felt that it saves lives, promotes bonding and is low cost strategy which reduced work load [18]. According to the study, the majority 71% (n=20) of the healthcare workers preferred incubators over KMC. This is similar to a study done previously which revealed that most healthcare professionals chose incubators because they thought it was a better alternative for newborn care owing to a lack of clear instructions, an increase in workload, inadequate training, and decreased resources and support [19].

From the study, 50% (n=14) of healthcare workers had not received any training on KMC. However, from the chi square findings ($p = 0.403 > 0.05$), there was no relationship between training and KMC adoption. This contrasted with a study done in Murang'a, where the majority (98.4%) of healthcare workers were not trained on KMC. A training on KMC was done, however, even after training, KMC practice remained unchanged [20]. This however, was in contrast to an earlier study done that found out that lack of formal training on KMC was a major barrier to KMC practice [21].

To offer KMC care, the health institution does not need to hire more staff, but it recommended that currently employed staff would obtain sufficient training in all KMC-related topics [22]. All medical workers who care for infants should get training on KMC as part of their pre-service and ongoing education [23]. The knowledge and abilities of healthcare staff should be updated through training, mentorship, and monitoring. A continuous education program that is periodically evaluated should be implemented by healthcare facilities [24].

5 Conclusion

This study concludes that, healthcare workers from Nyeri County referral hospital had a positive attitude towards the use of KMC as a method of infant care however, majority of the healthcare workers preferred incubators over KMC.

The study recommends KMC sensitization seminars and continuous training of healthcare workers to equip them with the information. As a way of motivating them there is need to establish excellent centers.

Compliance with ethical standards

Acknowledgments

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Disclosure of conflict of interest

The authors declare that they have no conflict of interests whatsoever.

Statement of ethical approval

Approval to undertake this study was sought from Chuka University and National commission for science, technology and Innovation (NACOSTI) through the Chuka University Ethics and Research Committee for review and approval (Ref. NO. 436299). The researcher also sought permission from the Nyeri County Health management team.

Statement of informed consent

The researcher clarified the purpose of the study to the respondents before recruitment and obtained a verbal and written consent. They were allowed to withdraw from the study without any penalty and no follow up was required. Confidentiality and privacy of the respondents was maintained at all times.

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