

ASSESSING KNOWLEDGE AND ATTITUDE TOWARDS KANGAROO MOTHER CARE AMONG WOMEN OF CHILD BEARING AGE IN BENIN CITY

Juliana A. Afemikhe, and Ainabebholo Vera Emuanta

ABSTRACT

The gift of a baby to a family is precious, and every woman anticipates seeing her healthy baby. Prematurity is a global health problem which is more in African and Asian countries, and the morbidity and mortality rate of this group is equally high. The use of incubator in caring for preterm is a challenge in developing countries due to various factors. Kangaroo Mother Care a natural, affordable and effective care for preterm is alternative care. Although KMC is practised in the tertiary health Institution in Benin at a low web, it is yet functional in Primary Health Centres. There is a paucity of information on KMC knowledge among women in Benin City. The community based descriptive cross-sectional design was conducted in Urelu Community, Benin City. There are no available statistics for the specific population, and because this study was exploratory, the researchers used a sample of two hundred participants. A self-constructed questionnaire was utilised in data collection, which was tested for content validity and reliability. Multistage sampling techniques were used for the selection of the study area. Randomized sampling was employed in selecting participants who met the criteria for inclusion. Result revealed high Knowledge of KMC among the participants, only 97 participants were aware of KMC, and most of the participants (35) got the information was gotten from the mass media and most of the participants (65) had a positive attitude towards KMC. Nurses role in KMC is essential; therefore, health education of women during antenatal care and the community is essential.

Keywords -Kangaroo Mother Care, Low birth weight babies, Premature neonates, Women of childbearing age,

Introduction

The gift of a baby to a family is precious, and every woman anticipates seeing her healthy baby. Prematurity and low birth weight of neonates is a global problem which significantly contributes to neonatal morbidity and mortality (Manta, 2014). Preterm birth is a major global health issue, with 15 million preterm births occurring each year, and over one million of these preterm infants die each year (World Health Organisation (WHO), 2012). In Africa and Asia, about 11 million preterm and low birth weight babies are born yearly (Beck et al., 2010). Furthermore, Lawn, Mongi & Cousens (2008) have indicated that in Africa about a million babies die in the first 28 days of life and global estimates revealed that one-third of these babies could be saved through implementation of maternal and child health intervention programmes. The risk of dying in the first month to five years was about 60 times higher in the highest mortality country than in the lowest mortality country (United Nations International Children's Emergency Fund, (UNICEF), 2018). Nearly ten per cent of newborn deaths in the world in 2016 occurred in Nigeria (UNICEF, 2017). The cause of death among children under five years in most developing countries are birth asphyxia, infections, complications due to prematurity and low birth weight (Standley, 2011). Premature babies are at risk of illness and death

due to the inability to control body temperature. Neonatal hypothermia is a significant challenge associated with morbidity and mortality (Trevisanuto et al., 2016). The outcome of a preterm baby is a litmus test of the health system function.

The use of incubators for premature and low birth weight infant is the standard for care in most countries. However, incubators are not easy to reach in many developing countries. The use of an incubator is a challenge due to factors such as constant power supply, poor maintenance culture, excess demand as a result of the high number of preterm birth/low birth weight peculiar to the developing countries which result in sharing of incubators among neonates (Dalal, Bala & Chauhan, 2014). This could increase the incidence of nosocomial infection among neonates and mortality. An alternative approach to incubation care which is affordable, effective and serves the purpose of thermal care as well as increasing survival rate for preterm/low birth weight neonates is Kangaroo Mother Care (KMC) (Dalal, Bala & Chauhan, 2014). According to the recommendations of the World Health Organisation (2003), the implementation of low-cost interventions such as Kangaroo Mother Care (KMC) could reduce the deaths among preterm babies significantly. KMC

functions more than substitute care for stable preterm babies without complications as they could live outside an incubator and require minimal continuous monitoring (Conde-Agudelo & Díaz-Rossello, 2014). It is a natural, uncomplicated and effective method of care for the preterm babies. It is a comprehensive harmonised, protocol-based care, evidenced-based care for premature babies in the developed and some developing countries. Intuitively, mothers grasp babies to the chest, signifying caring. Presently in the developing world, especially in African countries, culturally mothers carry their infants on their chest for hours a day. This paradigm of grasping an infant with ventral skin-to-skin contact, wrapped on the chest of the parent in an upright position, is referred to as kangaroo care (KC) (Campbell-Yeo, Disher, Benoit, & Johnston, 2015). KMC is a strategy of care given to the preterm/low birth weight infants with active participation and empowerment of the mothers and other members of the family as the primary care providers of warmth and food as well as psycho-emotional needs of the infant (Vesel et al., 2015).

The medical use of KMC natural phenomenon was introduced by Edgar Rey Sanabria in Columbia in 1978. This approach served as a replacement of incubators, especially in the developing countries where they were in short supply. The critical elements in KMC include continued skin to skin contact between baby and the mother, exclusive breastfeeding, early discharge of premature babies and a method that reduces the anxiety and agitation experienced in an intensive care unit with premature babies (World Health Organization, 2003). The aim is to commence the care early which should be continuous (Over 18 hours per day although the continuity and duration are dependent on the stability of the infant and the facility (Vesel et al., 2015). KMC is of immense benefits to the baby, the mother, the family and the society. Among the benefits is the maintenance of the growth and development of neonates, corrects the temperature, increases bonding of mother and the infants, promotes breastfeeding (Conde-Agudelo, Beliza. & Diaz-Rossello, 2015). KMC promotes ready access to breast milk as the position allows the neonate finds her way to the breast. The rapid weight gain by the infants during KMC allows for early discharge, thus reducing the cost of health care for the families and health (Vesel et al., 2015).

In Nigeria, KMC was introduced in the 1990s at a teaching hospital in the Western Region, and

many health Care Professionals had training on the use of KMC. It was estimated that about 19,000 preterm/low birth weight infants would have been saved by 2015 if it was adequately implemented (Kinney, Lawn, Kerber 2009). KMC can be initiated early in the hospital, which is then continued at home with members of the family integrated into the care to reduce the stress of caring on the mother. The care has been introduced in the various healthcare setting in Africa. However, KMC is not well known, and consequently, its practice in Nigeria is not very popular.

WHO has suggested the use of KMC in reducing neonatal death but clear laid down policy and guidelines are lacking in the health facilities (Higman, Wallace, Law, Bartle & Blake, 2014; Seidman et al., 2015). Health care professionals have inadequate knowledge of KMC ((Dalal, Bala & Chauhan, 2014). Mothers are expected to acquire knowledge from the health care professionals who would enable active participation. Although KMC is practised in the tertiary institution in Benin at a low web, it is yet to be implemented in Primary Health Centres. There is a paucity of information on KMC knowledge among women in Benin City. Among those familiar with KMC, the level of the attitude is equally important. Therefore, there was a need to assess the knowledge and attitude of KMC among women of childbearing age. The objectives of this study is to assess the level of knowledge and attitude of women of childbearing age of KMC.

Material and Method

The community based descriptive cross-sectional design was conducted in Uselu Community, Benin City, Edo State. The community is one of the popular communities in Benin City with a population of 339,899 (National Population Commission, 2006). The study population is women of childbearing age between ages 18 and 49 years who were eligible for the study. However, only those who have had children and willing to participate were recruited. There are no available statistics for the specific population, and because this study was exploratory, the researchers used a sample of two hundred participants. Multistage sampling technique was used. The first stage included a selection of streets through cluster sampling, and ten streets were selected. The houses were randomly selected using the ballot system during the second stage. Participants were selected using randomized sampling, which included only women who were available at the time of data collection and were

interested in the study. Collection of data was achieved with the use of a questionnaire. The data collection tool consisted of five questions on socio-demographic data. In assessing the knowledge of women, sixteen questions were asked regarding KMC. Their attitude was examined using ten (10) questions. Content Validity of the tool was established through the input of 5 nursing experts at the paediatric Intensive Care Unit in a tertiary health institution. Furthermore, a test-retest method was used to check for the reliability of the questionnaire with ten women at Ekosodin village. This was done with the response to the item 'Have you had of Kangaroo Mother Care?' From the responses, an agreement index was computed, which according to Afemikhe (2014) is indicative of reliability as stability. The result obtained was 0.93.

A micro-level analysis that involves individual items was used. Each knowledge response was scored 1 when correct and 0 for an incorrect response. The attitude was checked for positivity, and one was given to positive attitude and 0 for a negative attitude. Descriptive statistics which included frequency and percentages were utilized.

Results

All participants returned usable questionnaires. The demographic data of the participants consisting of age, marital status, educational level and ethnic group are presented in Table 1. Many of the participants (70) were within the age group 34-41years, 142 were married, and about 156 participants had a maximum of 6 children. The educational attainment of the participants was mainly secondary education (113), and the majority (104) were traders.

Table 1: Socio-Demographic Data of Participants

| Variables | N | Percentages |
|--------------------------|-----|-------------|
| Age (years) | | |
| 18-25 | 37 | 18.5 |
| 26-33 | 65 | 32.5 |
| 34-41 | 70 | 35 |
| 42-45 | 28 | 14 |
| Total | 200 | 100 |
| Marital Status | | |
| Married | 142 | 71 |
| Single | 21 | 10.5 |
| Divorced | 13 | 6.5 |
| Cohabiting | 16 | 8 |
| Widower | 08 | 4 |
| Total | 200 | 100 |
| Number of children | | |
| 1-3 | 71 | 35.5 |
| 4-6 | 85 | 42.5 |
| 6 and above | 44 | 22 |
| Total | 200 | 100 |
| Level of Education | | |
| Primary School | 35 | 17.5 |
| Secondary Education | 113 | 56.5 |
| Tertiary Education | 44 | 22 |
| Non-Formal Education | 08 | 4 |
| Total | 200 | 100 |
| Profession | 20 | 10 |
| Teachers | 09 | 4.5 |
| Health care Professional | 104 | 52 |
| Trader | 55 | 27.5 |
| Artisan worker | 12 | 6 |
| Unemployed | 200 | 100 |
| Total | | |

Table 2 shows the awareness of KMC among the participants. Only 97 participants have heard of the care, and many (35) got the information from the mass media. In the remaining part of this paper, only responses from the 97 participants who have heard of KMC are used.

Table 3 shows the knowledge of participants about KMC. Most of the participants who have heard of KMC had the correct answer to the meaning of the care. Most of the participants (86) agreed that underweight babies should be dressed while all (97) opined that the babies should be fed with breast milk. The finding revealed that only 41 participants knew that

babies with low birth weight should be strapped on the chest for about 12 hours daily. The

average score is 67% which implies the respondents are knowledgeable about KMC.

Table 2: Awareness of Kangaroo Mother Care

| Variables | N | % |
|---|-----|------|
| Have you heard of Kangaroo mother care? | | |
| Yes | 97 | 48.5 |
| No | 103 | 51.5 |
| What is your source of Knowledge | | |
| Hospital | 23 | 23.7 |
| Mass Media | 35 | 36.1 |
| Seminar/Lecture | 08 | 08.2 |
| Family | 14 | 14.4 |
| Colleagues | 17 | 17.6 |

Table 3: Knowledge of Participants of KMC

| Variables | Correct Answers | % | Incorrect Answers | % |
|---|-----------------|------|-------------------|------|
| What is Kangaroo Mother Care (KMC)? | 63 | 64.9 | 34 | 35.1 |
| Kangaroo mother care is carried out on which group of babies? | 66 | 68 | 31 | 32 |
| Where is KMC instituted? | 63 | 64.9 | 34 | 35.1 |
| When is KMC instituted? | 61 | 62.9 | 36 | 37.1 |
| Which food is to be given during KMC? | 97 | 100 | 00 | 00 |
| Should the baby be dressed during KMC? | 61 | 62.9 | 36 | 37.1 |
| Which of these clothing is the baby expected to wear? | 42 | 43.3 | 55 | 56.7 |
| What is the estimated time for the care daily? | 41 | 42.3 | 56 | 57.7 |
| What is the normal position of KMC? | 61 | 62.9 | 36 | 37.1 |
| What should be the caregiver’s position during the care? | 72 | 74.2 | 25 | 25.7 |
| Where can kangaroo mother care be carried out? | 71 | 73.2 | 24 | 26.8 |
| Can someone else participate in this care? | 64 | 66 | 33 | 34 |
| When should the care be discontinued? | 68 | 70.1 | 29 | 29.9 |
| What are the advantages of KMC? | 78 | 80.4 | 19 | 19.6 |

Table 4 depicts the attitude of participants towards KMC. Most of the participants had a positive attitude towards the KMC related issues. Many of the respondents (65) would feel good caring for a neonate using KMC, without being stressed (72) nor disturbed with the

reactions of others (72). Among the participants, 52 indicated they would be comfortable with to be worn by the would-be-mother. All these issues are indicative of the acceptability of KMC.

Table 4: Attitude of Participants Toward KMC

| Variables | Positive Attitude | % | Negative Attitude | % |
|---|-------------------|------|-------------------|------|
| How will you feel like giving KMC? (Good is taken as a positive response) | 65 | 67.1 | 32 | 32.9 |
| How will you feel about the baby? | 76 | 78.4 | 21 | 21.6 |
| Will it be comfortable to give the care? (Yes, is taken as a positive response) | 68 | 70.1 | 29 | 29.9 |
| Will you be stressed? | 72 | 74.2 | 25 | 25.8 |
| Will you be anxious about the reaction of others? | 72 | 74.2 | 25 | 25.8 |
| Will you be comfortable with the clothes to be worn? | 52 | 53.6 | 45 | 46.4 |
| Will the practice of KMC be tiring? | 68 | 70.1 | 29 | 29.9 |
| Will you be able to handle the baby? | 68 | 70.1 | 29 | 29.9 |
| Do you think that KMC will increase the bonding of the mother and the child? | 82 | 84.5 | 15 | 15.5 |
| Will you recommend KMC to others? | 72 | 74.2 | 25 | 25.8 |

Discussion

This study assesses the knowledge and attitude of KMC among women of childbearing age. The demographic data of the participants revealed that many of the participants (70) were within the age group 34-41 years, were married, and had a maximum of 6 children. Further study showed that the educational attainment of the participants was mainly secondary education and the majority (104) were traders.

Our study observed that majority of respondents' level of knowledge on KMC is high. The results from the present study are, consistent with those of Mfuh, Lukong, and Adamu (2018) who found that 61% of the participants in their study had knowledge of KMC. This study does not agree with the study of Solomon and Rosant (2015), in Cape Town, where majority (83.3%) of the respondents had not received any information regarding KMC; therefore, they had poor knowledge of the care. This study does not support another related study in North Kerala, India by Urmila, Ravikumar and Usha (2018) who also revealed that 95.4% had no prior knowledge of KMC before childbirth and Nguah et al., (2011) who reported that at recruitment of participants to utilise KMC in management of their preterm neonates, only 23 (11.4%) mothers knew about KMC in Ghana. The results from the present study are, however, is also at variance with Ramaiah and Mokh (2016) who found that most mothers (65%) who participated in their study had inadequate knowledge, and none of the women had adequate knowledge in Saudi Arabia. Variation in the knowledge of issues related to KMC varied from 42.3% to 100%. Participants' knowledge of the clothing of the premature baby during KMC was shallow as only 42 participants could describe the premature baby's dressing to enable adequate skin to skin contact during the care. Roba, Binoy and Naganuri (2017) had earlier found that in Ethiopia that majority of the respondents could not correctly describe the clothing of the neonate during KMC. Knowledge of an intervention is essential to enabling the clients to understand the concept as well as develop an interest in the change, which is cheaper and has added advantage. Without this interest, getting involved in the intervention could be difficult.

The sources of information on KMC in this study were mainly from Mass media (35), health care professionals (23) and colleagues (17). A

similar study by Urmila, Ravikumar & Usha (2018) revealed that the major sources of information on KMC were relatives and social media (internet). The importance of mass/social media is not unexpected as they now play an essential role in information dissemination due to minimal financial involvement.

The result of this study showed that respondents' awareness level of KMC is high and only 35.1% are not aware of the concept of KMC.

It is encouraging to note that 67.1% of the participants had a positive attitude towards KMC and agreed to practise the care. These results agree with those of Bajaj, Nanavati, Sureka, Rajan and Kabra (2015) where most of the women had a favourable opinion of the practice. In Ethiopia, most women felt positive regarding KMC as they experience the advantage of the care on their babies (Roba, Binoy & Naganuri, 2017). Most of the participants (80.4) agreed that KMC would improve the bonding of the neonate with the mother. Various studies have earlier identified this advantage of KMC (Roba, Binoy & Naganuri (2017); Mfuh, Lukong, & Adamu, 2018). Mothers' care for her baby is an innate maternal instinct which may not have been affected by knowledge or any other factor. This could have an impact on the positive attitude to the use of KMC.

Conclusion

KMC is a safe and effective tool that has been used to ensure the well-being of preterm and low birth weight babies in many countries. The knowledge of women was low although there was a positive attitude; therefore, there is a need to give adequate health education on KMC to mothers during antenatal care and at the primary health care level to improve their awareness. Health care professionals should be more responsive in improving the awareness of community members and women of new interventions or programme to promote the wellbeing of premature babies and under 5 children.

Nursing Implications

KMC is mainly a nursing procedure which is ensured by the nurses; therefore, there is a need for adequate training of nurses in Primary Health Centres. Nursing educators should teach and motivate students to develop an interest in giving adequate health education and health teaching to clients during their training. Health

education is an integral aspect of Nursing and should be adequately integrated into all aspects of clinical practice in order to affect the community positively. Health care professionals should cultivate a positive attitude toward learning in order to be abreast with new programmes. Collaboration between health care professionals is vital in the implementation of KMC and adequate involvement and participation of the clients.

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