ORIGINAL RESEARCH ARTICLE

Challenges of uptake of kangaroo mother care by parents of preterm and low birth weight infants in Edo State, Nigeria

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Abstract

The uptake of kangaroo mother care (KMC) which is acclaimed to be an effective and efficient method of neonatal survival has not increased in Edo State even more than a decade since its recommendation by the WHO in Edo State. Nigeria ranks seventh among the ten African countries where newborns have the highest risk of dying with over 700 newborn deaths per10, 000 live births. The study investigated the challenges faced by parents of preterm and low birth weight infants in the uptake of KMC. The design was an exploratory qualitative research design that utilized semi-structured interviews with open-ended questions to interview 13 mothers whose premature babies were admitted in the neonatal intensive unit of a tertiary health facility. Responses were analyzed thematically and reported in codes and themes. Findings: all participants reported similar challenges, which included ridicule from untrusting friends, inadequate information, lack of human and material resources and nurses' poor attitude. Recommendations made were timely information, increase in human and material resources and establishment of KMC dedicated centers by government. *(Afr J Reprod Health 2022; 26[2]: 68-79).*

Keywords: Kangaroo mother care, challenges, deterrents, infrastructure, preterm, low birth weight

Résumé

L'adoption des soins maternels kangourous (KMC), qui sont reconnus comme une méthode efficace et efficiente de survie néonatale, n'a pas augmenté dans l'État d'Edo même plus d'une décennie depuis sa recommandation par l'OMS dans l'État d'Edo. Le Nigeria se classe septième parmi les dix pays africains où les nouveau-nés ont le risque le plus élevé de mourir avec plus de 700 décès de nouveau-nés pour 10 000 naissances vivantes. L'étude a examiné les défis auxquels sont confrontés les parents de nourrissons prématurés et de faible poids à la naissance dans l'adoption de la MMK. La conception était une conception de recherche qualitative exploratoire qui utilisait des entretiens semi-structurés avec des questions ouvertes pour interroger 13 mères dont les bébés prématurés étaient admis dans l'unité néonatale intensive d'un établissement de santé tertiaire. Les réponses ont été analysées par thème et rapportées sous forme de codes et de thèmes. Résultats : tous les participants ont signalé des défis similaires, notamment le ridicule d'amis méfiants, des informations inadéquates, le manque de ressources humaines et matérielles et la mauvaise attitude des infirmières. Les recommandations formulées étaient les suivantes : informations opportunes, augmentation des ressources humaines et matérielles et création de centres dédiés au KMC par le gouvernement. *(Afr J Reprod Health 2022; 26[2]: 68-79).*

Mots-clés: Soins de la mère kangourou, défis, moyens de dissuasion, infrastructure, prématurité, faible poids à la naissance

Introduction

Child care and neonatal care practices date back to historic times as man had always looked for shelter, heat and preservation of self from draught[1]. Provision of warmth is adjudged one of the key concept of neonatal care[2]. Most traditions practice thermal care which is the provision of warmth in the delivery room prior to and immediately after birth by shutting out any form of draught to the mother and baby as they are both kept as warm as possible in a room with windows seldom opened and with some form of local heat production (fire wood)[3]. The baby is dried and wrapped in warm blankets or thick clothing after cleansing the body with palm or coconut oils. These are regarded as key to the survival of the neonate[4]. With the shift of childbirth from the home to the hospital, the care and survival of neonates have improved and kangaroo mother care (KMC), a method of care for newborn babies

especially those born prematurely and those who are mature but with a low birth weight (LBW) of less than 2.5kg, is been advocated. The method requires that "a baby is strapped early in a prolonged, and continuous skin-to-skin contact in an upright position against a mothers' bare chest or substitute both in the hospital and after discharge, until at least the 40th week of postnatal gestational age"[5]. It can be initiated with the support and supervision of the healthcare staff especially the midwives and neonatal nurses. Thermal care is the provision of warmth to the neonate and it is a key component of community newborn interventions, which is provided by birth attendants and community extension workers[3].

The goal of KMC is to reduce the risks of mortality and morbidity due to hypothermia, hypoglycemia and infection by employing cheap, available and accessible methods[6-8]. Incubators are used to provide thermal care in high resource countries, but the Low and Medium Income Countries (LMIC) are still plagued by financial challenges to provide incubators for every neonate that requires it. This challenge leads to increase in neonatal morbidity and mortality as neonates sometimes share incubators[9-10]. Various studies have reported on KMC as an alternative to incubators to prevent neonatal mortality especially in infants weighing less than 2kg[11.] Getting the mother and her infant in close continuous contact is the basic requirement for the success of the KMC concept as it promotes breastfeeding as well[2]. The WHO had called for improvement in the care practices concerning the newborn as part of measures directed at reducing morbidity and mortality rates. It recommends the Essential Newborn Care (ENC) practices, which includes clean cord care, thermal care and initiation of breastfeeding within the first hour of childbirth to meet this objective[12]. KMC is a form of thermal care recommended as part of neonatal and infant care practices based on its reported success in developed and some developing countries[13-14]. Although Nigeria constitutes just 1% of the world's population, it accounts for 10% of the world's maternal and under-5 years (U-5) mortality rates[15]. Health workers active in the neonatal and maternity environments such as neonatal intensive care nurses (NICN) and midwives are of immense value in mediating the problem of neonatal mortality. Limited documented evidence exists on issues related to KMC uptake and its challenges by parents in Nigeria and Edo State in particular. KMC has continued intermittently at various levels in Nigeria because it has not been systematically integrated as part of the infant care policy[16.] Government and various nongovernmental organizations (NGOs) continue to roll out KMC programmes; however, some institutions still have difficulties in getting KMC institutionalised as policy or to maintain it in a sustainable way[7, 16].

A preliminary investigation by the researchers on KMC uptake in Edo State revealed that it has not expanded beyond one teaching hospital despite the fact that many births take place at the primary health care centers and private hospitals. Dearth of paediatricians complicates this issue as a large proportion (87.5%) in Nigeria is reported to be employed by the government at tertiary institutions where they provide specialized care for children and engage in teaching paediatrics at both undergraduate and postgraduate levels[17]. Furthermore, a systematic review of barriers and enablers of KMC practice classified probable challenges of KMC into three categories: 1) Barriers experienced by mothers (parents) 2) barriers experienced by nurses, 3). Barriers experienced by physicians and programme administrators[9]. The type of challenges parents of preterm infants in Edo State have in KMC uptake is unclear considering the cultural diversity of inhabitants. The study explored these challenges as a problem identification phase of a three-phased Doctoral study that aimed to develop strategies to improve KMC uptake in health care facilities in Edo State Nigeria. Understanding the challenges is key to enabling the neonatal nurses render assistance to clients based on their own perspectives in and out of the healthcare facility. Furthermore, suitable solutions proffered by the end users would lead to early and increased uptake of KMC practice.

Methods

Research setting

The study lasted for 4weeks; research participants were identified in the first week while the data collection proper took three weeks. This was to enable the participants flexible dates and time for the interviews which took place in the neonatal Special Care Baby Unit (SCBU) of a tertiary health facility accredited as a KMC centre by WHO in 2005. The health facility is located in the State capital in part of Ovia North East LGA. It shares boundaries with university of Benin to the south and Federal Girls' Grammar School to the east. It was established in 1974 alongside the University of Benin to serve as a training ground for medical doctors and other allied health workers. It has a bed capacity of 720 with multiple units and departments such as the Institute of Child Health, Obstetrics & Gynaecology and Neurology units to mention but a few. This accounts for the facility having diverse groups of healthcare professionals and auxiliary staff.

Research design

The study was an exploratory qualitative research that utilized semi-structured interviews with open-ended questions to explore participants' experiences.

Population and sampling

A purposive sampling method with inclusion criteria was used to select 20 mothers of preterm /LBW infants admitted into the University of Benin Teaching Hospital Special Care Baby Unit (SCBU) during the study period. Those who had not practiced KMC in previous pregnancy but had done so in the present one for more than three consecutive times were recruited. Participants were not stratified because none had LBW babies or had practiced KMC previously. In this study, thirteen mothers of preterm infants were interviewed and saturation was achieved after the 12th respondent when a pattern of data repetition emerged. This means that the researcher reached a point where the process did not yield new information, indicating that the researcher experienced a sense of closure and did not need to interview all 20 participants initially selected.

Participants who met the selection criteria below were recruited while those who did not were excluded.

Inclusion criteria

a). Mothers whose babies were admitted at the study site.
b). Mothers of preterm infants who had practiced KMC for more than 30 minutes on three or more consecutive times or days.
c). Mothers who had preterm or LBW babies before the recent delivery but did not practice KMC.
d). Mothers of preterm infants who were able to communicate in "Broken" or 'Pidgin' English.

Data collection tool

A Semi structured interview with open-ended questions were utilized as this allowed personal and informal interaction with the mothers, some of whom may not be literate to complete a questionnaire. Questions were constructed to allow for adequate narration of participants' experiences. An interview guide which consisted of key questions that defined areas of interest that needed to be explored was employed[18].

Key questions asked were as follows:
1. What are the socio-cultural practices that surround child care in your area?
2. What do you know about kangaroo mother care and its advantages?
3. How do these practices affect kangaroo mother care?
4. What are the problems you have encountered or envisage at home in the process of practicing kangaroo mother care?

The interview guide was developed through consultation with experts in neonatology, information and communication/ journalism to enable inclusion of relevant questions and the skill to conduct same. Modifications were incorporated into the final instrument after a trial run with three mothers of preterm infants who had previously

practiced KMC but were visiting the neonatal unit on follow–up.

The participants were identified with the assistance of the Unit Head. The interview sessions were conducted by one of the researchers over a three-week period in a quiet room located at the extreme end of the (SCBU). The researcher is a registered Nurse / Midwife with M.Sc. in nursing education and a doctoral student in nursing. The researcher read extensively on how to conduct interviews as well as did a one-day training with an expert in journalism. The duration for each interview session was 30minutes.

Recruitment of participants

Access to the health facility was granted following the Institutions' ethics committee's approval. Participants were recruited for individual interviews by the researchers with the assistance of the Unit Head who identified mothers who had been practicing KMC or those about to commence.

Rigour

In qualitative studies, rigour is measured in terms of the sincerity of the researcher in collecting data as well as the quality of data. In this study prolonged engagement in the field, checking interpretations against raw data, cross checking with a co-coder to ensure credibility of the study was adhered to. Confirmability was attained when the research results represented a precise account of the experiences with KMC of mothers of preterm infants by going through the appropriate channels of data collection and re-reading the meanings generated from the coding back to the participants. The large quantum of data collected from individual interviews were transcribed on same day of interview within 24 hours in other not to lose vital information. An inductive and deductive method was thereafter used to generate code for each statement after it was read and re-read and subsequently reduced to themes. followed by the final write-up. Reflective notes were taken on the whole process after each interview. No software was applied for the analysis. A co-coder was employed and inter coder agreement was a priori. Coders compared codes and themes and agreed on the same meaning of the participants' statements. Where multiple codes arose, consensus was reached on the most appropriate one All records of events associated with the study over time are kept and documented.

Transferability was achieved by presenting a 'thick' description of the participants, the context and the setting of the research study, while dependability was achieved through ensuring data consistency and usability[19].

Furthermore, a trial run of the interview guide written in English Language, but interpreted in "Pidgin" or "Broken" English (understood by the majority) was conducted on three mothers of preterm infants from the study site who were visiting the Unit with their babies for follow-up. This helped the researcher to identify the misunderstandings of different questions and determine if there were limitations or other weaknesses in the interview design[19].

Data collection process

The selected participants were informed of the interview date by the researcher prior to the day and time they chose. The KMC room located at the extreme left-hand corner of the neonatal ward was used for the exercise. Although the room was within the structure, it is out of earshot of other people, with no distractions. Before the commencement of the interview, consent forms and information sheets duly signed were collected; relevant permissions were sought and participants obliged.

Response rate

In qualitative research, data saturation and a sense of closure are critical requisites[20]. In this study, though 20 mothers of preterm infants were initially selected, only 13 were interviewed as saturation was achieved after the 12th respondent when a pattern of data repetition emerged where the process did not yield new information.

Method of data analysis

The approach to data analysis was thematic. Open coding was employed[21]. Transcription of each

interview followed meticulous reading and re-reading to gain the focus of the text by inductive and deductive reasoning. Codes, categorization and themes were developed to reduce data to a manageable size. The themes were developed by immersion in the data to understand and seek further explanation to generate categories. Inter coder consensus were reached on all categories. The researchers paraphrased and read the participants responses back to them to ensure that they have the same understanding of the issue that were discussed. The thirteen participants in the study met the inclusion criteria as stated above None of them had previously had a preterm/LBW delivery, but they had practiced KMC in the current dispersion for three consecutive times or more.

Results

Two themes and three categories were generated which describe the challenges as it relates to the study objectives. Extracts from the participants were used to support the descriptions of these themes with the exact language and phrases used by them. The letter "M" (Mother) was used to denote the participants and their corresponding number in the interview. Table 1 provides a summary of the emerged themes with their sub-themes and categories.

Demography of participants (N=13)

As shown in Table 1, the participants' age range was 19-35 years with those in the age range of 25-29 constituting the highest 8(61.5%). Three (23%) are aged 30-34 years, while eight (61.5%). They are all married. The gestational age of the babies ranged from: 28-35wks. Birth weight was 1kg to 1.6kg. Participants source of admission, were in-patients 7 (53%) while 6 (46.2%) were referred from other healthcare facilities in the state or its neighbours. The parity of the respondents was from Para 1+0 to 3+0 with the primipara constituting the highest category, 9 (69.2%).

Table 2 highlights the challenges faced by participants in the uptake of KMC. The question asked in this segment was: "What are the problems you have encountered or do you envisage at home in the process of practicing Kangaroo Mother Care? The question also addressed the solutions to mediate the identified challenges. One theme arose from this objective followed by three categories and sub-categories tagged: deterrents to acceptance of KMC, shortage of resources and impact of challenges.

Deterrent to KMC practice

In this study, deterrent was an obstacle created by a feeling of uncooperative stance from the caregivers or significant others such as ridiculing behaviour and discouragement from friends.

a. Gossip and Ridicule from Friends: The participants reported being deterred from the practice of KMC by gossip and ridicule from disbelieving friends due to perceived misconceptions and lack of understanding.

"*Some of them can just talk and gossip about you to other people." (M7)*

***b. Discouragement from others*:** Some participants raised the issue of misconceptions about KMC practice by family and friends who may act as a clog in the wheel of progress in the continuation and practice of KMC, as expressed below:

"They may react negatively and will not like it. They may even think that because we are Christians or we are educated, that is why we are trying to condemn the way children had been raised in the past. Some of them can even read funny reason like trying to pamper the child or spoil him." (M12).

c. Nurses' Attitude: These attitudes were characterized by the unacceptable responses given by nurses to mothers when they needed assistance with KMC practice as reported by the following statement (M5):

"If you need assistance in putting baby in the buba and tying the wrapper, the nurses will be delaying and saying they are not the ones for KMC in the shift." (M5).

d. Lack of Privacy: This is another deterrent to practice established in this study. Privacy in this context is when there is no intrusion into a person's space or the mother's body is not unduly exposed to others without her consent. This lack of privacy was captured in respondent M6 own words:

"At times when you go there (KMC room), the Doctor will come and say they have lecture with

Table 1: Demography of participants (N=13)

Variable		n (%)	Mean & SD
Age	19-24 years	1 (7.7%)	27.5(1.25)
	25-29 years	8 (61.5)	
	30-34 years	3 (23.0)	
	35 years & above	1 (7.7%)	
Marital status	Married	13 (100%)	
	Single	0 (0.0%)	
Occupation	Housewife	4 (30.7%)	
	Artisan /Trader	3 (23.1%)	
	Civil servant	5 (38.5%)	
	Student	1 (1.7%)	
Source of Admission	In-Patient	7 (53.8%)	
	Referral		
	2nd facilities	3 (23.1%)	
	PHC	3 (23.1%)	
Gestational age of baby	28-31wks	5 (38.5%)	31.5 (0.99)
	32-35wks	8 (61.5%)	
Birth Weight of baby	1-1.4kg	7 (53.8%)	1.35 (0.97)
	1.41-1.6kg	6 (46.2%)	
Parity	$1+^0$	9 (69.2)	
	$2+^0$	2 (15.4)	
	$3+^0$	2 (15.4)	

Table 2: Challenges faced by parents of preterm babies in KMC uptake

Objectives	Themes	Categories	Sub-Categories
1. To explore the challenges faced by parents of preterm babies in the uptake of KMC in Edo State, Nigeria.	1. Challenges experienced with practice.	Deterrents to acceptance of KMC practice.	i. Gossip and ridicule from untrusting friends. ii. Discouragement from others. iii. Nurse's attitude. iv. Lack of privacy.
		Shortage of resources.	i. Human resources. ii. Physical resources. iii. Financial resources.
		Impact of challenges.	i. Sense of despair. ii. Inadequate practice time.
2. Solutions to overcome identified challenges.	2. Solutions and recommendation.		i. Information and education. ▪ Timely information to mothers in the ANC& while on admission. ▪ Print and electronic media for awareness creation on KC. ii. Increment of human resource. iii. Addition of infrastructures.

*medical students now; they will not even let you know before that time. Or the cleaner or even the ward attendant will just come there to lie down or start discussing in the room even when we are doing KMC.***"**

e. Shortage of Resources: This was reported in three sub-categories; human, physical and financial as key deterrent to practice.

Human resources: such as nurses, doctors and other allied health workers that render service in the NICU is key to the successful implementation of KMC. The following quotes from participants indicate inadequate human resources.

"*The main problem is lack of nurses; government should employ more nurses because the nurses here are not much. Only one nurse to look after more*

than 8 babies in a shift. It is even worse on afternoon and night duty." (M12)

Physical resources: Participants reported overcrowding in the mothers' room as well as lack of basic amenities like beds and mattresses, among others. Respondent (M12) reported:

"They should give us room for KMC so that we will just come and stay. At that place (supposed KMC room) they use it for their study too and it causes distraction. It will be good if they should put chairs."

Respondent (13) opined:

At Stella (Stella Obasanjo Women and Children Hospital) they sent me here. Government should build more hospital that practice KMC.

Financial Resources: Participants advocated for the reduction in hospital bills because the charges are exorbitant hence many of them reported inability to pay for services even after discharge from the Unit.

"*But they should help me reduce the hospital bills. It's too much (laughs). I heard that the babies that were nursed in the incubator pay N5, 000:00 per day. They should please reduce hospital bills many people do not come with money." (M13)*

This was corroborated with some very heart-rending accounts from other participants who said:

"They do not accept babies first, they always demand for money before taking care of the baby and sometimes it leads to the death of the baby." (M3).

"Eh!! Yes, I will like that since yesterday, they discharged me it's about financial problem that is holding me back. I don't have money to pay; so what I want the government to do is that please they should reduce the price. It is too much for us to pay and now I don't have the money. ---- (M3)

Impact of challenges

The impact of challenges experienced by the participants featured in various forms included a sense of despair and inadequate time for practice as captured in these statements:

a. Boredom: *The period I have to stay in one place when doing KMC…"* (Appearing irritated). *M4)*

b. Inadequate information on when to commence KMC *"The nurses should be telling the mothers because some of the mothers are not aware and if they don't tell us, we will not know that our babies are up to the time that we will start doing the KMC. If they don't tell us, we will not know that the babies have reached kangaroo stage. They should inform the mothers on when to start, like if the baby is this weight or that weight, they should start" (M3).*

c. Limited opportunity to practice KMC optimally. *"Though, some of them are so harsh sometime is only few of them that are very kind, very few of them; before I started KMC, I actually learnt that it would last at least 4 hours but I have not ever completed 2 hours. If you go there by 10am, before they will attend to you it will be a few minutes to 11am, then once its 12noon, they take the baby and say they want to put the baby in the incubator. So it's only very few people that when you go there they will attend to you immediately, majority of them will keep you waiting, they will tell you wait." (M10)*

Solutions and recommendations

The researchers asked for suggestions to improve KMC practice across the State.

Information and education

Timely information: KMC information should best be given while the mother is attending ANC or immediately when the preterm term infant is admitted to the NICU to avoid distortion.

"To me, it is to inform and educate people who do not know about it. Like me, I have not heard about it in the television and radio before. Even self, they can still tell them in the ANC clinic." (M8)

Print and electronic media*:* This medium is suggested by participants to enable the mother- to-be and the public have awareness of the KMC concept to promote its acceptability.

"They should use radio and television to discuss it so that people will know about it more." (M8).

Another respondent aptly made her suggestions as follows:

"For me, everybody does not go to ANC; if they say they should wait for all this nurses to tell them to do it, some parents will not come. They should print flyers or handout to parents so that they can read it

and understand it. Even radio they can put it in television or in radio so that people can be enlightened about it." (M9)

Increment of human resource

Participants also complained of shortage of manpower and recommended that more nurses should be employed. Respondent M10:

"They should have more nurses because you find out that it's that nurse that attended to you will still be the one to feed that baby. Therefore, one nurse will have three babies to attend to at a time. There should be plenty nurses so that one should be attending to a particular person, you would first attend to them and that is not only the work for them. They would be attending to us easier and faster and it is not that nurses will still be the one to feed the baby and all of that. That is why they don't encourage or they take time to attend to us all when we need a hand to improve on it" (meaning KC)

Additional infrastructure: Participants suggested having more KMC centres at hospitals across the State.

"See now, the Doctor says many hospitals are already using it, but we don't have it like that here in our State. We do not have many doctors in the other hospitals. They don't even have this kind of SCBU in the general hospital and maternity." (M12).

Discussion

The discussion of this study was done in accordance with the themes and categories that arose from the challenges and suggestions made by the participants. The age of the participants ranged from 19 to 36 years. This implies that the participants were all adults of 18 years and above. This is in tandem with the Nigeria Constitution of 1999 section 29(4), which states that citizens must be 18 years of age to enter into any marriage contract[22]. Another feature in the demography of the participants is that nearly half of them were referrals from other health facilities. This could be because there is no other accredited KMC health facility in the State. This places pressure on the study cite in terms of physical, material and human resources. This validates recommendations made for teaching hospitals to serve as centres of excellence and be responsible for the education and training of personnel for KMC practice to enable a national outlook[6]. This study also indicated that 4 of the participants were full-time housewives. The economic status of these mothers could place extra burden on their spouses, which has led to the appeal to reduce hospital bills by some of the participants.

Despite the advantages of KMC, major challenges reported in this study include deterrents and ridicule from untrusting friends, nurses' attitude and lack of privacy. Some participants reported deterrents to practice of KMC due to gossip and ridicule from disbelieving friends, because of their misconceptions and lack of understanding. The fact that significant others did not accept the concept of KMC as indicated in his study, negative emotions of KMC arose in some of the mothers. The best support for persons in such circumstances are empathetic understanding. This attitude of significant others contradicts a study in China which posits that because people live in communities and households, they tend to maintain acceptable bonding relationships with others and accept practices they know are harmful or not convinced of its potential values[23].

Inadequate information and lack of awareness as to when to commence KMC was a key finding in this study. Some participants did not know about this concept before or during pregnancy. They assert that they were not informed that their babies were stable enough to commence KMC by the nurses. This poor attitude on the part of some of the nurses is a deterrent to KMC uptake. Ignorance can create distortion of information. The role of information and education about health issues, especially to the woman is viewed as very important in home and childcare practices and therefore cannot be overemphasized. Lack of awareness by the mother can affect the health of the entire family, which a study in Nigeria supports by affirming that ignorance and lack of formal education or non-availability of information is implicated as a cause of prematurity[24]. The information dissemination mechanism in the health

sector can be improved to reach all and sundry through varied means such as the radio and television, as rightly advocated by some participants. This can reduce the resistance currently being faced by core traditionalists. These findings align with one in Uganda where some mothers who initiated good care practices for LBW newborns in the facilities did not sustain them at home probably due to lack of health education to sustain practice at home[25].

Another key finding in this study was lack of privacy and shortage of human and infrastructural resources. The KMC room in the study site is a somehow multiple purpose structure used for lectures and serves as break room for the attendants. This finding validates studies, which reported lower level of assertiveness, poverty and affordability as barriers to access and utilize health facilities in sub-Saharan Africa[26-28]. Inadequate manpower as observed by the participants was a probable reason for the nurses' poor attitude to clients in times of increased workload, which may affect clients adversely. This was validated by previous studies that reported inadequate health-worker performance as a very widespread problem. The economic conditions of a country and health system is adjudged as one of the factors affecting health care practices in some countries[29]. Nigeria is not an exception as she has been facing economic depression for some time, which has had adverse impact on the health sector. This had necessitated health workers shutting down hospital services in the recent past. The most cited reasons for these lock outs are poor healthcare leadership and management, demand for higher salaries and wages, infrastructural and inter-personal issues[30].

High hospital bills were reported by some participants who wanted government to do a downward review. The researcher found that SCBU does not charge professional or consultation fees. However, charges for bed space are made which depends on the days the neonate remained in the Unit. These in most cases are for a long period. The bills thereby accumulate and become impossible for the average person to pay. Similarly, drugs and other essential items are in short supply, which the parents are immediately asked to provide instead of turning the neonates away. This is governments' unpopular management technique. Institutions that are deprived of funding are forced to look inwards to break even. This corroborates the study that reported administrators lack resources to keep the KMC programme running and empower personnel to provide holistic care for the preterm infant[31]. It also validates an Indonesian study that reported a major barrier for infants to remain in hospital for a sufficient period of time as affordability of hospital user fees[32]. Lack of adequate infrastructure was another major challenge; participants reported that the mothers' room was overcrowded with a lack of basic and household amenities like good beds and mattresses and washrooms.

In order to allow for maximum utilization of services, it is good customer-provider relationship to seek the views of customers on how to serve them better. The recommendations and solutions proffered by participants are germane as it arose directly from what they have experienced with KMC practice. These are: (a) making information available to the mothers of preterm on what the outcome of pregnancy could be by introducing KMC at the ANC. Information could be disseminated via print and electronic media not only to mothers but also to the public to improve KMC awareness and acceptability. Studies have reported parents' lack of prior information before delivery[33]. (b) Increased human resources in the facility; (c) increase the number of KMC dedicated centers in the state. These are in line with a previous study that reported staff perception of KMC as constituting extra workload in the already busy nature of NICU[31]. Increasing KMC practice centres is actually the bottom line of the concept, as it does not require any special equipment or building but training and positive disposition by professionals and parents. This is in agreement with a Columbian study from whom the concept of KMC originated[2].

Ethical consideration

Ethics clearance for the study as part of a Doctoral thesis was issued by the University of the Western Cape Higher Degrees Ethics Committee before commencement. A certificate was obtained from the tertiary institutions' research review committee

while permission was granted by the Unit managers. All the participants signed an informed consent form. Anonymity and confidentiality were ensured as well as right to withdraw from the study at any time without penalty emphasized.

Conclusion

The study has established that the challenges encountered by parents of preterm infants include lack of information, nurses' poor attitude as well as inadequate human and material resources. The recommendations made by participants are germane since it arose from their experiences. These include timely information about KMC to the mothers during the antenatal period, increase in human, material and infrastructural resources in already existing KMC centres, and establishment of KMC dedicated health facilities.

Recommendations to improve practice

In order to allow for maximum utilisation of services, it is good customer-provider relationship to seek the views of customers on how to serve them better. The recommendations and solutions proffered by participants arose directly from their experiences with KMC practice.

1. Information dissemination via print and electronic media not only to mothers but also to the public to improve KMC awareness, acceptability and uptake.
2. Increase in the number of healthcare facilities that practice KMC to upscale its practice. KMC can be practiced at any health facility because it does not require any special equipment or building.
3.An all embracing and emphatic relationship should to be created and maintained by both the provider and recipient of care to enable persons feel welcomed, appreciated and recognized for their input.
4. Adequate material and human resources should be made priorities in the health sector.
5. Nurses from the private sector should not be discriminated against in terms of workshops and seminars because a handful of preterm deliveries take place at the PHCs and private settings. Empowering them can boost the much needed human resources in neonatal health.

Implications for clinical practice, provider-patient relationships

1. The study brings a unique contribution to nursing knowledge because the participants spoke from their experiences and recommended ways to improve KMC uptake.
2.The use of inductive and deductive logic is a unique contribution because the researchers could give evidence from empirical data and literature.
3. The findings from this study will be of importance to nursing education as the need for neonatal mortality reduction is well articulated in the nursing and midwifery curriculum and hands-on exercise advocated to ensure practice.
4. There should be active participation and supervision at clinical postings of students to make them change agents to drive future KMC practice.
5. The empathic role expected of the neonatal nurses and largely all health workers is highlighted in this study. Poor attitude of health workers scares recipient of health services and thereby lose confidence and trust in treatment.

Limitations

1. When this study was conceived by the researchers, the plan was to include health workers at the PHCs, secondary, tertiary and the private hospitals. Preliminary investigations done to assess the state of neonatal care in healthcare facilities in Edo State revealed that KMC was practiced only at the tertiary level. Investigating participants on a concept not practiced would yield false outcomes.
2. It was also the intention of the researcher to do an in-depth interview with the administrators and have a focus group discussion with the neonatal and public health nurses. This could not happen because of the busy nature of the administrators' job and the neonatal nurses who run shift duties. This would have given some insight into the problems faced by these group of persons too and how they perceive KMC uptake to be improved.

Suggestions for further studies

In view of the study findings and the limitations highlighted,
1. There is room for further research in the field of neonatal nursing especially with regard to KMC in the PHCs and private hospitals. This is due to the fact that many of the preterm births that take place at these levels are said to be properly documented. Much can be done by empowering the workers and providing public enlightenment.
2. Awareness and utilisation of KMC guidelines among health workers in the private sector should be investigated.

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Contribution of authors

Roselynd Ejakhianghe Esewe: Conceived, designed the study and collected data.
Rene Deliwe Phetlhu: Analyzed data, prepared and edited the manuscript.
Both authors approved the manuscript.

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