



**EXPERIENCES OF MALE PARTNERS PARTICIPATING IN KANGAROO  
MOTHER CARE WITHIN THE HOSPITAL AND HOME SETTINGS  
IN DEDZA DISTRICT, MALAWI**

**Master of Science Degree (Midwifery) Thesis**

**By**

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### **Declaration**

I **Yankho Katundu** hereby declare that this thesis is my own original work which has not been submitted for any other awards at the University of Malawi or any other University

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### **Certificate of Approval**

The undersigned certify that this thesis represents the student's own work and effort and has been submitted with our approval.

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### **Dedication**

This dissertation is dedicated to my daughter Chimwemwe and my husband Hope, for their endurance, support, and encouragement throughout my study period

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## **List of abbreviations**

|        |                                |
|--------|--------------------------------|
| HIV    | Human Immunodeficiency Virus   |
| KMC    | Kangaroo Mother Care           |
| LBW    | Low Birth Weight               |
| MOH    | Ministry of Health             |
| NICU   | Neonatal Intensive Care Unit   |
| UNICEF | United Nations Children's Fund |
| WHO    | World Health Organisation      |

## **Operational definitions**

|                       |  |
|-----------------------|--|
| Low birth weight:     | Weight which is less than the normal birth weight of 2500 grams  |
| Kangaroo mother care: | An intervention given to low birth weight babies, whereby the baby is placed on a continuous skin to skin position on the chest of the caregiver, in an upright position until the baby reaches 2500 grams |
| Male partner:         | A spouse or husband of a woman who gave birth to a baby who was low birth weight and needed Kangaroo Mother Care.  |
| Experiences:          | To have firsthand knowledge of states, situations, emotions or sensations  |

## **Abstract**

Low Birth Weight which is mainly due to prematurity, contributes to high neonatal mortality rates. Kangaroo Mother Care is the main intervention for the babies to survive. Many studies on KMC experiences have focused on mothers and health care workers, hence the need to focus on men who also provide Kangaroo Mother Care. The objective of this study was to explore the experiences of male partners participating in Kangaroo Mother Care within the hospital and the home settings in Dedza district. A qualitative design method was used. The study was conducted at Dedza District Hospital in Malawi including data from home settings. Data were collected through face to face in-depth interviews using a semi-structured interview guide and a tape recorder. Data were analyzed using thematic analysis. The themes that emerged were: male partners' perception of the experience with Kangaroo Mother Care, facilitators to male partners' participation and barriers to male partners' participation in Kangaroo Mother Care.

The study revealed that most of the male partners had positive perceptions of their experience in participating in Kangaroo Mother Care at the hospital and at home such as perceiving it as a rewarding experience. However, there were barriers, such as health care worker attitude, hospital environment and lack of time. Health care worker support and community sensitization are key elements in ensuring male participation. The findings will give nurse midwives an insight that it is possible and essential to promote male partner participation in Kangaroo Mother Care and to develop more strategies that can enhance their participation.

Keywords: Kangaroo Mother Care, male partners, Experiences, Qualitative method, Healthcare worker support, Community sensitization

## Chapter 1

### Introduction

Overall, it is estimated that 15% to 20% of all births worldwide are low birth weight mainly caused by preterm birth, representing more than 20 million births a year, and preterm birth is the most common direct cause of neonatal mortality (WHO, 2014). During the neonatal period worldwide especially during the first days after birth, there is a high risk of death whereby 4 million babies die (MOH, 2015). The leading causes of these deaths are infection, LBW especially due to prematurity and birth asphyxia (MOH, 2015).

In Malawi, the neonatal mortality rate is at 27/1000 live births (NSO, 2015-2016). The main causes of neonatal deaths are infection (30%), asphyxia (22%) and preterm birth (30%) and 60-90% of these deaths, occur in LBW babies (MOH, 2015). This shows that LBW babies are at high risk of having complications in their first days of life which lead to death. Therefore there is a need to address interventions that can help them survive, Kangaroo Mother Care (KMC) being one of them. KMC is mainly provided by the mothers but everyone can perform it including the male partner which helps allow the mother to have rest, hence the focus of this study is on the participation of the male partners in KMC.

According to World Health Organization (WHO), low birth weight is any weight less than 2500 grams and it mainly occurs due to prematurity and small for gestational age due to impaired prenatal growth or both (MOH, 2015). WHO and UNICEF (2014), state the global estimates where by the highest incidence of low birth weight is in the south central Asia which is at 27 % followed by sub-Saharan Africa at 15 %. Malawi as

part of sub-Saharan Africa has a slightly lower incidence of LBW at 12% (Ngwira & Stanely, 2015). LBW babies are at risk for many complications after birth like hypothermia, hypoglycemia, infection, jaundice, bleeding, breathing difficulties, and feeding difficulties (MOH, 2015).

KMC is the care given to a LBW baby whereby the mother or caregiver puts the baby in skin to skin contact on the chest in an upright position to ensure warmth and this continues every day until the baby reaches 2500 grams (MOH, 2015). This method is easy and less costly compared to the use of an incubator, and everyone can participate including family members. One of the elements of KMC is emotional and physical support to the mother with the LBW baby, from health workers and family members including the male partner or husband (MOH, 2015). The emotional support includes encouragement to the mother to maintain skin to skin contact and feeding of the baby while physical support includes involving the family members in putting the baby on skin to skin contact when the mother needs to rest.

Male partner participation in health issues like KMC, is mainly in western countries unlike in Africa or developing countries like Malawi probably due to traditional values of the African society that women care for the sick relations including children. Studies on male partners and KMC are scarce in the African setting due to the same premise that there is low participation, yet the male partners have an important role in ensuring continuous skin to skin contact with the LBW baby. Seidman et al., (2015) also attest to the fact that male partners are also not involved because they are not given the opportunity to participate in providing the KMC within the hospital as well as at home even if they want to participate. The birth of a preterm infant, therefore, challenges father

involvement in caregiving because there is no psychological, physical and emotional preparation and the mother has such increased responsibilities (Leonard & Meyers, 2008).

In a study on male's perceptions, attitudes and barriers to male involvement in newborn care in rural Ghana, it was found out that males were not involved because they thought that it is a gender role for women to take care of the newborns (Dumbaugh et al., 2014). Consistent with the study, a Malawian study which is not published, on women's experiences in providing KMC at home after discharge from Bwaila Hospital, by Manjanja (2013), found that most of the participants did not have physical support from their spouses because the men thought it was a woman's job and therefore, the women ended up putting their babies on KMC position mostly at night when they were through with their household chores. This explains that male participation on issues of KMC is really a challenge whereby the women have to do everything on their own and end up not complying to the recommended continuous skin to skin contact with their LBW baby, thereby increasing mortality rates in the neonates.

KMC provides an opportunity for fathers to participate actively in the care of their baby, which can help them have a sense of fulfillment and is beneficial to the family unit. A lot of studies have shown that male partners who participate in KMC have positive experiences and that their participation promotes KMC uptake in families, promotes paternal infant attachment and they feel needed in the life of their newborn (Moreira, Romagnoli, Dias and Moreira 2009; Tessier et al., 2009; Vessel et al. 2014; Varela, Muñoz, Tessier, Plata, & Charpak, 2014; smith et al., 2016).

The International Conference on Population and Development (ICPD) that happened in 1994 in Cairo, Egypt, promoted male involvement or participation in maternal and child health issues to all the concerned countries including Malawi. Some of the benefits of male participation have been reported to be, more assistance from the male partner leading to short stay in the hospitals and improved maternal health (Chimwaza et al., 2015). However, the participation in the Malawian setting has not been emphasized on issues to do with KMC. When addressing issues of KMC emphasis has always been put on the mother and sometimes female relatives, regarding health education, provision of KMC in the hospital and at home after discharge, including follow-up. Furthermore, research on KMC mostly targets the mothers and health care workers.

In this study the focus was to explore the male partners experience after participating in the KMC intervention at Dedza District Hospital and at home, so as to know how to promote their participation. The male partners were to have practiced the KMC at the hospital and at home.

## **Background**

According to Venancio and Almeida (2004), Edgar Rey Sanabria and Hector Martinez are the founders of the KMC method which they started implementing in 1979 at Bogota in Colombia. The name of this method was coined based on the way marsupials provide care to their newborns, as one of them is a Kangaroo. Venancio and Almeida (2004) further state that before KMC was implemented, there were high neonatal mortality rates in the LBW babies because there were not enough incubators and this led to early weaning and there was also cross infections. In 2003, WHO developed a practical guide on KMC.

KMC was introduced in Malawi in 1999 at the Zomba Central Hospital, which later served as a KMC training facility for health workers from six other hospitals and the initiative was supported by the Save the Children/US – Saving Newborn Lives Program (Bergh et al., 2007). As of 2007, KMC was being implemented in all districts and in February 2005, the Malawi National Guidelines on KMC were adopted and incorporated into the Ministry of Health work plan for 2005/6, and the guidelines were revised in March 2009 to incorporate guidelines for ambulatory and community KMC.

According to Vessel et al. (2015), Africa has the highest rates of preterm birth and South Asia has the highest rates of intrauterine growth restriction causing low birth weight. KMC is very essential and there is evidence to prove that KMC reduces neonatal mortality rate in LBW babies. Lawn, Kambafwile, Horta, Barros & Cousens (2010) and Conde, Belizán & Rossello (2011), in their studies proved that KMC reduces morbidity and mortality rate and they also found out that infection was also reduced in the LBW babies who were put on KMC method.

The study by Lawn et al. (2010) showed that commencing KMC in the first week of life had a significant reduction in neonatal mortality [relative risk (RR) 0.49, 95% confidence interval (CI) 0.29–0.82] compared with standard care. A meta-analysis of three observational studies also suggested significant mortality benefit (RR 0.68, 95% CI 0.58–0.79). Five RCTs suggested significant reductions in serious morbidity for babies.

In the study by Conde et al. (2011) in the sixteen studies, 2518 infants fulfilled the inclusion criteria. Fourteen studies evaluated KMC in LBW infants after stabilization, one evaluated KMC in LBW infants before stabilization, and one compared early onset KMC with late onset KMC in relatively stable LBW infants. Eleven studies evaluated

intermittent KMC and five evaluated continuous KMC. At discharge or 40 - 41 weeks' postmenstrual age, KMC was associated with a reduction in the risk of mortality (typical risk ratio (RR) 0.60, 95% confidence interval (CI) 0.39 to 0.93; seven trials, 1614 infants), nosocomial infection/sepsis (typical RR 0.42, 95% CI 0.24 to 0.73), hypothermia (typical RR 0.23, 95% CI 0.10 to 0.55), and length of hospital stay (typical mean difference 2.4 days, 95% CI 0.7 to 4.1). At latest follow up, KMC was associated with a decreased risk of mortality (typical RR 0.68, 95% CI 0.48 to 0.96; nine trials, 1952 infants) and severe infection/sepsis (typical RR 0.57, 95% CI 0.40 to 0.80). Moreover, KMC was found to increase some measures of infant growth, breastfeeding, and mother-infant attachment.

As previously highlighted, male participation in KMC is mainly done in western countries such as Sweden, where there are also a lot of studies conducted on the subject (Blomgivist et al, 2013; Olsson et al., 2016 & Sisson, Jones, Williams, & Lachanudis, 2015). This is where most of the reference is made from, unlike from African countries such as Malawi where KMC is mostly done by women. However there is need to promote the male partner participation to fill the gap and create evidence on male participation in Africa specifically Malawi, hence the need to conduct this study to find ways of promoting male participation.

In Dedza District, Malawi, there are two health facilities implementing facility KMC. One of them is the main hospital, Dedza District Hospital, where the study took place, while the other one is Mua mission hospital. Some health centres or facilities do not admit babies who need KMC; they just initiate KMC on the LBW babies after birth and refer to the District Hospital. According to a report on evaluation of KMC services

in Malawi where Dedza District was part of the sample selected, it was found that follow up of KMC babies after discharge was low, which could translate to discontinuation of KMC at home (Bergh et al., 2012). In addition to that, Malawian studies found that some of the factors affecting compliance and continuation of KMC by mothers, were lack of support or assistance with skin-to-skin contact and multiple roles of the mother (Chisenga, Chalanda & Ngwale, 2015; Manjanja, 2013).

KMC is an effective way of ensuring that LBW babies survive when practiced as required. Carrying a baby on skin to skin contact is tiresome to the mother and, therefore she needs support especially from her spouse who is likely to be present all the time, unlike other female relations who may also have to take care of their own families. If there is male partner participation from the hospital, it can also be easy for them to be involved even after discharge. Studies have shown that experiences of male partners in countries where they participate in KMC have been positive and promoted KMC uptake. It was therefore important to find out the experiences of the male partners so as to find ways that can enhance their participation.

### **Justification of the study**

It was necessary to conduct this study because the study findings may influence change in midwifery practice and policy making by contributing to evidence based practice on KMC and male partner participation. The midwives may start to involve the men more and on purpose when dealing with women who have babies on KMC. They may emphasize on the support that the men need to give to their spouses when the mother is in the hospital and when discharged to continue KMC at home. In policy development, the findings may also help to incorporate KMC when addressing issues of male

involvement, and this can also be emphasized from the antenatal clinic where pregnant women are encouraged to bring their male partners and also to improve the setting or environment where KMC is being practiced in the hospital to allow men to participate.

### **Statement of the problem**

In Malawi the neonatal mortality rate is high at 27/1000 live births, with up to 30% of neonatal deaths due to prematurity (MOH, 2015). To reduce the mortality rates KMC is essential and requires continuous skin to skin contact between baby and caregiver who can also be the father of the baby. In Malawian studies by Chisenga et al. (2015) and Manjanja (2013) it was found that male partners did not participate in the provision of KMC even though the female partners wished they did, such that women with LBW babies on KMC had a problem to maintain the continuous skin to skin contact with their babies at the hospital and at home. They got tired and had to attend to other household duties or rest, as a result putting the lives of the babies at risk.

There is a scarcity of studies on male participation in KMC, many studies focus on the mothers and health care workers, leaving out the male partners. Previous studies of male participation in maternal and newborn health issues in Malawi have particularly focused on antenatal care and prevention of mother to child transmission of HIV rather than complications in the postpartum. Studies have shown that male partner participation promotes KMC uptake (Moreira, Romagnoli, Dias and Moreira 2009; Tessier et al., 2009; Vessel et al. 2014; Varela, Muñoz, Tessier, Plata, & Charpak, 2014; smith et al., 2016). It was therefore important to know the experiences of the male partners after providing KMC, so as to identify ways that will help to enhance their participation. This

study explored the experiences of male partners in participating in KMC at the hospital and at home.

**Broad Objective**

To explore the experiences of male partners participating in KMC within the hospital and home settings in Dedza district.

**Specific Objectives**

1. To establish male partners' perceptions of the experience of providing KMC within the hospital and home settings
2. To describe the facilitators to male partners' participation in KMC within the hospital and home settings
3. To investigate the barriers to male partners' participation in KMC within the hospital and home settings

## **Chapter 2**

### **Literature review**

A literature review is a critical summary on a topic of interest and often prepared to put research problem in context (Polit & Beck, 2014). The purpose of the literature review is to orient the researcher about what is already known about the topic to avoid duplication of research findings. In this literature review, the focus is on the perception of the male partners experience in KMC, the facilitators of male partners' participation in KMC and barriers of male partners' participation in KMC. On the search strategy, data base used to search literature, were Hinari, JSTOR, Ebsco Host and PubMed. Due to the scarcity of research studies on male partner experiences and participation in KMC, the literature review has included studies on parents' experiences and participation in KMC since the male partner is also incorporated in them. The literature has also included studies on father's experiences and participation with KMC. The search terms were experiences, parents, fathers, KMC, male participation and skin to skin.

#### **Male partners' perceptions of the experience of participating in KMC within the hospital and home settings**

Perception is defined as the way in which something is regarded understood or interpreted. Although male participation in health issues like KMC, is mainly in western countries unlike in Africa, slowly people are getting to understand that it is possible for men to participate. Male partners in the present day can share roles with the female partners in providing or taking care of the household as well as children and father's role

in the family in general has shifted where the involvement of fathers is becoming the norm (Lee, Lin, Huang, Hsu & Bartlett, 2009; Palm, 2014).

In a study by Anderzén-Carlsson, Lamy, Tingvall and Eriksson (2014) fathers who were prevented from providing KMC for organizational reasons were frustrated and helpless, as they could not interact with their infant yet they wanted to do so. Swift and Scholten, (2009) and Lindberg, Axelsson, and Ohrling, (2007), also found that male partners felt that they were not encouraged to participate because the environment rendered them unable to ask and they were not sure whether they were allowed to pick their baby and sometimes the staff gave a feeling that the infant was not theirs, or was on loan. This means that the health care system itself including the health care workers were regarded as a barrier for the men to take part, yet the guidelines for KMC by WHO, strongly recommend that support to the caregiver through inclusion of family members like the male partner, is very essential in ensuring continuous skin to skin contact with the LBW baby.

Helth and Jarden (2013) and Leonard and Mayers (2008) also found that some fathers longed for opportunities to be more involved with their infants who were on KMC but experienced a sense of being out on the sideline and not really part of it. In all these studies where men were not given the opportunity or were not encouraged, the men were already at the hospital, where by the hospitals allowed them to be present in the hospital NICU, yet on the part of KMC they were not regarded as eligible to take part. This shows that men may be willing to provide KMC because they regard themselves worthy of assisting their female partners and it is important to give them the opportunity to do so,

hence the need to involve them in order to find out their experiences with the KMC intervention starting from the hospital so that they can continue at home.

On KMC, the male partners can be involved in many ways like putting the baby on KMC position, taking care of the home or providing psychological support. In a study on assuring the integrity of the family: being the father of a very LBW infant in Taiwan, it was found that some fathers supported their wives in quitting their jobs because they did not feel safe having others care for their fragile baby (Lee et al., 2009). Fathers often described themselves as assistants to their wives at home. However, most fathers preferred doing house chores (buying daily groceries, cleaning bottles) than doing direct physical care activities (feeding the baby, bathing the baby) and fathers in single-earner families often helped only by holding the baby or occasionally playing with the baby (Lee et al., 2009). These fathers acted as short-time caregivers to ‘watch’ the baby when the mother needed to be away temporarily or needed to rest.

In other studies by Olsson, Eriksson and Anderzén-Carlsson (2017) and Blomqvist, Lund, Rubertsson and Nyqvist (2013), the fathers were directly involved in the care of the newborn, the parents supported each other by encouraging one another and by taking turns, as they shared the job of performing KMC. Most of the fathers in their interviews commented about the heart-warming experience of being in skin-to-skin with their infant. In the study from Taiwan by Lee et al. (2009), the concept of KMC was not emphasized and the LBW babies were mostly cared for in the incubator. Even after discharge KMC was not considered; that is probably why they felt they had just a supporting role. Unlike in the studies by Olsson et al. (2017) and Blomqvist et al. (2013) which were both done in Sweden, the KMC concept was fully established and the men

freely participated after they fully understood the importance. Therefore, for the male partners to take part in providing KMC, they need to be aware of what KMC is all about and the role they can take in supporting their spouses.

In a study by Nguah et al. (2011) on perception and practice of KMC by mothers after discharge from hospital in Kumasi, Ghana, it was found that, out of the 202 mothers who were participants, the proportion of spouses who knew about KMC increased at subsequent follow up visits after the men were informed by their wives. The proportion of mothers who had their spouses assisting them with KMC increased significantly from 66.5% to 82.8% over the duration of the four visits which shows that there is a relationship between having knowledge on KMC and being able to participate or give support on KMC on the part of the men.

Studies have shown that perceptions on provision of KMC by male partners in western countries are positive, and there is support on the promotion of male participation in KMC since it is where the men do actively participate rather than in African countries where most of the men have never tried the intervention. Blomqvist, Rubertson, Kyleberge, Reskog & Nyqvist (2012), in their descriptive study of fathers' experiences of providing their preterm infants with KMC in a NICU in Sweden, when assessing the feelings of participants towards KMC, the majority of fathers were unprepared for a preterm birth, but they experienced the situation as manageable. Although everything was new, they accepted the situation and did not feel compelled to be in the hospital with the infant. Spending much time together with their infants and taking care of her/him in the NICU made the fathers feel in control over the infant and its care. Providing KMC was something the fathers did voluntarily, and they expressed satisfaction with the KMC

method; it was safe, convenient and not difficult. Furthermore, Blomqvist et al. (2012) found that the fathers regarded the infant's period of stay at the NICU with KMC as a positive experience for themselves. The knowledge they acquired about the benefits of the KMC method provided justification for continuing skin-to-skin care, and the provision of KMC gave them an obvious role in the infant's care, which made them feel important and involved.

In the findings by Health and Jarden (2013); Gutiérrez, Pérez, Aguilera and Moreno (2012) and Fegran, Helseth, and Fagermoen (2008), the male participants were initially apprehensive and reluctant to hold and be close to their infant; however when they did hold their child they explained that it made them feel important as contributors to their infant's care. They had comments and expression of how much they had valued the experience of skin to skin contact with their babies, that it brought satisfaction, pride and happiness. Fathers perceived that they were more confident in their parenting abilities and in the interaction with their newborn baby. They spoke of how emotional they felt, that this was an experience they could not put into words of how marvelous it was. These studies by Health and Jarden (2013); Gutiérrez, Pérez, Aguilera and Moreno (2012) and Fegran, Helseth, and Fagermoen (2008), involving men and KMC showed that once the men came into contact with their LBW baby, the anxiety was no longer there and most of them had positive perception towards providing KMC, which may mean that men need to be encouraged to provide the KMC as it is emphasized in this study.

In an unpublished Malawian study it was found that majority of women complained that their partners did not assist them in keeping the baby in KMC position

even if they needed rest since they regarded KMC as a woman's responsibility (Manjanja, 2013). Chan, Labar, Wall and Atuni (2015) in a systematic review of 2875 studies from different countries found that Zimbabwean fathers felt that caring for a child is a responsibility of women according to their culture, therefore they were not comfortable to perform KMC. However it is evident that of all the studies reviewed by Chan et al. (2015) only one study revealed that men were not interested, meaning that there are not many studies which reveal that men are not interested. Nevertheless, studies on KMC and male participation are not many in Africa where mostly the cultural values influence men not to be involved in caring for the sick and newborns. It is therefore important to have a lot of studies in Africa to conclude that men do not take part in KMC because their cultural values do not allow them and that they do not want to change that even after trying the intervention which is vital for the survival of the LBW babies.

### **Facilitators to male partners participation in KMC within the hospital and home settings**

Facilitators are things or situations that can promote, contribute, or help something to move forward or to happen. For the male partners to participate in KMC, there may be contributing factors which are the facilitators which can be identified from their experiences. Understanding these can help to find ways of enhancing their participation by promoting the facilitators and dealing with the barriers. Some of the facilitators if not promoted could also be barriers at the same time. One of the facilitating factors that was discovered is health care worker support where the health care workers can provide information on KMC to the male partner and how they can support their wives. The health care workers are the ones who can facilitate the practice of KMC on

the male partners since they can suggest the need and the importance of including the male partners to provide the care as well as helping the men in providing the KMC.

In a study by Gutierrez et al. (2012) which aimed at investigating the significance of skin-to-skin contact method with fathers by looking at their own experiences with their newborns at a hospital in Spain, the investigations performed in the study highlighted the importance of the involvement of health professionals in the use of the KMC method, which led to a series of positive results when fathers were taking part in the care of their newborn. In studies that focused on parents' experience of providing KMC to their preterm infants, the parents' use of KMC was facilitated with information from the NICU staff. Parents experienced that KMC was quite natural just as they had planned to care for their newborn infant and the fathers were able to practice KMC at home because they had to incorporate the principles/skills that they had learned from the health facility into practice (Blomqvist et al., 2013; Lemmen, Fristedt & Lundqvist, 2013; Leonard & Mayers, 2008). All these studies have similar findings probably because they were qualitative studies and focused on the experiences of the fathers or the male partners. Furthermore, the studies were conducted by health care workers who recruited the men to participate in the study and were to have participated in the KMC as a requirement in taking part in the study. However, there were positive outcomes and experiences from their participation such as bonding or attachment with their newborn, feeling of satisfaction and their continuous participation in the care.

In a study by Hollywood and Hollywood (2011) it was discovered that the lack of information from health care workers resulted in several fathers reporting a negative experience, and some felt that the issue was exclusive to them. Furthermore, the

accuracy, availability, and level of information that was communicated were reported in negative and positive terms. Some health care professionals would either communicate in medical terms which were threatening and could not be understood. However, this study was encompassing on experience in all the care of the premature newborn, where KMC is inclusive. Therefore, healthcare workers need to be supportive and accommodative to the male partners for them to participate freely because they may be a barrier as well if they provide unclear and conflicting information to the male partners.

Another facilitating factor is peer support. Smith, Steelfisher, Salhi, & Shen, (2012) and Sisson et al. (2015) discovered that the need to interact with other parents was deemed important for a number of fathers, and this observation was therefore considered conceptually relevant where by it was found that sometimes they wanted to talk to someone who had been there and was experiencing the exact same thing. It can therefore be necessary for health care workers to involve men who have practiced KMC before, to convey the message to the other men at the hospital as well as at the community to promote their involvement.

Another facilitating factor is the environment where KMC is taking place. Blomqvist (2012) conducted a study at two Swedish NICUs, where he wanted to find out parents' experiences in providing KMC. He found that parents were able to provide KMC easily when the environment was private. They were able to provide privacy with the use of privacy screens around the bed. This shows that without the privacy, it would have been difficult for the men to feel comfortable in providing KMC, and it may be likely that the bed screens were the stationary ones which can provide full privacy. It is very likely that in the low income countries like Malawi where the KMC unit wards do

not have the stationary screens, instead they have mobile bed screens, and the environment can be a barrier for many men to take part in providing KMC at the hospital.

### **Barriers to male partners participation in KMC within the hospital and home settings**

Barriers in this context are things or situations which can prevent or inhibit male partner participation in KMC. Environment has been discussed previously to be a facilitator, however it was also found to be a barrier in a study by Sudell, Lanlehin, and Hill (2015) where it was found that equipment was a source of concern for fathers when they were transferring or holding their infant and they were worried about disconnecting wires or tubing. They felt that the environment was making them feel uncomfortable due to the equipment. This was the case probably because in developed countries the LBW babies are still put on KMC while they are not very stable and have monitoring tubes on them. However, this may not be the case with countries like Malawi whereby they wait for the LBW baby to be fully stable before initiating KMC except in special cases when they can do it with the baby having a feeding tube if very small and unable to take in milk.

Another barrier to providing KMC by the male partners was found to be lack of time because the men already have much work to do as heads of their families. In the study by Blomqvist et al. (2013) in Sweden, it was revealed that some of the fathers were not able to perform KMC at home because they had to go to work. In another study by Chan et al., (2015) a systemic review of many studies on enablers and barriers from both developed and developed countries, it was revealed that parents and other family members were not able to provide continuous KMC at the hospital and at home because most of the times they were at work or else they were attending to household duties.

Much as lack of time is indeed a challenge to the men, it is important to illustrate to them that KMC is an intervention which requires 24 hours, and the men can not be involved with work in the 24 hours of the day everyday. Therefore they need to understand the importance and devise a way of how to make time even a few hours per day, to allow the mother to rest.

Another barrier to the male partners in providing KMC is attitude of the health care workers. This was found in Swedish studies by Blomqvist (2012) and Shrivastava and Ramasamy (2013) whereby parents felt that some staff members were disrespectful, some were disturbing with noise and carried out other procedures without asking them first. Sometimes the staff did not have sufficient time to help to position the infant on a parents' chest which resulted in delayed and shorter KMC sessions. As discussed already, healthcare workers can facilitate men's participation in KMC but can also be a barrier if they do not relate or treat the men with respect.

Physical burden was also found to be a problem when providing KMC. In a study by Blomqvist et al. (2013) in Sweden, uncomfortable beds at home caused physical problems such as a backache to the parents, and some parents reported that the furniture they had at home was not suitable for KMC. The recommended KMC beds are inclined and are adjustable at the head to be in an upright position or semi sitting position. These type of beds are found at the hospital, therefore there is need to improvise at home. However a study by Olsson, Eriksson and Carlsson (2017) which was also conducted in Sweden also found that men felt tired or even exhausted because of lack of sleep or being sore after sitting in an uncomfortable position while providing KMC at the hospital which had the recommended inclined beds. Inability to fulfil their own physical needs such as

going to bathroom also constituted a burden during KMC, as the fathers did not want to disturb their infant. This problem is a reality which might not be dealt with to the maximum since KMC still needs the parent to carry the LBW baby on their chest continuously for some time and this is the more reason why the woman needs assistance from the male partner. It is important to explain to the men on the possibility of feeling the physical burden while having the LBW baby on the KMC position and also to find ways on how to make the process more comfortable at the hospital as well as at home.

### **Summary of literature review**

Based on the review of literature, it is evident that male participation in KMC in hospitals and at home is mostly done in western countries where the male partners are even involved while in the health facility and are able to continue at home after discharge. This is also evident with the studies reviewed which are mainly from Sweden, Taiwan and Spain because that is where there is male participation in KMC. Cultural context has an influence on how the men feel about participating in KMC. However in areas where there is male participation the outcome of the KMC service is positive because there is continued skin to skin contact with the low birth weight baby. In Malawi, there is limited literature on male partners' participation in in KMC and this could point to the fact that there is limited male participation due to some factors. Therefore, it is important to address the problems like cultural background by promoting the KMC with the male partners at the hospital and at home so as to understand their experiences and see how best to promote and improve their participation. Furthermore to also find the other facilitators and barriers that are there so that male partners should be involved thereby reducing mortality rates in the LBW babies.

## **Chapter 3**

### **Methodology**

Methodology is the systematic theoretical analysis of the methods applied to a field of study. This section therefore, gives information on the overall plan of activities done to conduct the study. The research design, the setting, sampling and sample size, data collection, data management and analysis, ethical consideration and plan for dissemination are highlighted in this section.

#### **Study design**

The study used a qualitative descriptive research design. This design was chosen because it helped to uncover more information on the area under study since little is known on the participation of male partners in providing KMC in Malawian hospitals and homes (Dahlgren, Emmelin & Winkvist, 2004). To understand how male partners feel about being involved in providing KMC, it was appropriate to get the information from the men themselves after allowing them to experience it first. According to Polit and Beck (2014), the goal of qualitative design is to develop a rich understanding of a phenomenon as it exists and as it is constructed by individuals within their own context. The source of knowledge was on epistemology of intuition which occurs when researchers remain open to the meanings attributed to the phenomenon by those who have experienced it (Polit & Beck, 2014).

#### **Study setting**

The study was conducted at Dedza district Hospital where the male partners were requested to provide KMC where privacy was provided and they also continued at home after discharge. The study was carried out at that facility because it is the main hospital

and a referral facility in the district and also has a KMC unit where babies on KMC are admitted. The KMC ward admits eight babies and approximately has 300 admissions per year and the average stay of the LBW babies on KMC is five days.

## **Population and sample**

### **Study population**

The study population were male partners who had their female partners and LBW babies admitted to the KMC unit at Dedza District Hospital. The male partners were identified soon after admission of the mothers and babies in KMC ward and when the men were not available at the time of admission their spouses were asked the same day, to send a word for them to come on the same day or the following day. The men also came for follow up visit from home after one week where they were expected to continue providing the KMC.

### **Sampling method**

Purposive sampling was used to recruit participants. This sampling method was chosen because the researcher was seeking to access male partners who had a low birth weight baby on KMC and were willing to participate in KMC. Purposive sampling is a type of sampling in which researchers deliberately choose the cases or types of cases that will best contribute to the information needs of the study (Polit & Beck, 2014).

### **Sample size**

Sample is a subset of a population which is selected to participate in the study (Polit & Beck, 2014). The sample size for the study included 16 participants where data saturation was reached. There are no rules for sample size in qualitative research as sample size is usually determined by informational needs, hence, a guiding principle in sampling is data saturation, that is, sampling to the point at which no new information is obtained and redundancy is achieved (Polit & Beck, 2014).

### **Inclusion criteria**

The male partners to be included in the study were the ones who were fathers to a newborn who was a LBW and on KMC method and agreed to participate in the provision of KMC.

### **Exclusion criteria**

Male partners with their LBW babies on KMC in the health facility but who did not agree to participate in providing KMC, were not included because the aim of the study was to explore their experiences.

### **Pretest of the instrument**

A pretest of the data collection instrument was done on two male partners at Dedza District Hospital. The pretest helped to inform the researcher on the data collection tool. One question on the interview guide was not properly understood by some of the participants in the way it was translated in the Chichewa language and the required information was not captured. Therefore, this question was modified when proceeding with the data collection in order to get the information that was needed. The

question was on the facilitators to male partners in participating in KMC, where by it was understood as why it is important for male partners to participate in providing KMC.

### **Data collection**

Data were collected through face to face in-depth interviews using a semi-structured interview guide. The interview guide consisted of questions on their experiences in practicing KMC at the hospital and at home as male individuals, and also their experiences regarding the facilitators and barriers of providing the KMC.

Participants were recruited on admission to the KMC unit by the researcher or by a health care provider working in the KMC unit at the time of admission. When the male partner was not available, the female partner was asked to send a word to the spouse to come to the hospital. Explanation about the study including the main objective of the study was given to the male partners, which was to promote male participation by finding out their experiences in providing KMC. After giving consent to participate, the male partners were given education on KMC about the benefits and the other care that the baby needs while on KMC. After giving them the education they were assisted on how to position the baby on KMC position. This was done according to KMC protocols (MOH, 2015). They were requested to provide the KMC for three sessions in the hospital, where they practiced at least two hours per session which was done on different days. The interviews were done at the hospital before discharge, and on discharge the male partners were advised to continue KMC at home. On the follow up visit at one week at the district hospital, the male partners were also interviewed to find out about their experiences at home. The whole data collection process is illustrated in figure 1 below.

Most of the participants were from around the district hospital because it was difficult to recruit male partners with LBW babies who were from far areas such as those referred from far away health centres due to distance, time and financial constraints. However, there were a few participants from health centres not very far from the district hospital and had agreed to come and provide KMC at the main hospital and they also came for follow up visit at the hospital, though in normal circumstances they were supposed to go at their nearest health centre for review or follow up visit. The in depth interviews were done in Chichewa and the data was recorded through audio-taping in order to enhance the accuracy of the data. The interviews took an average time of 30 minutes approximately for the two interviews per participant.

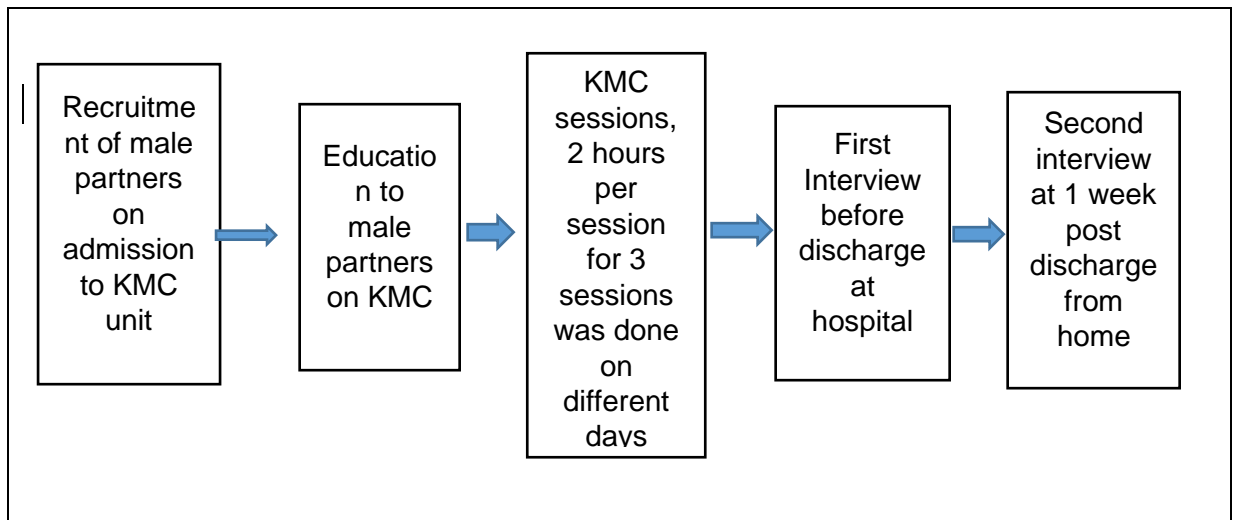


Figure 1: Illustration of the data collection process

## **Data analysis**

The study findings were analyzed using Thematic Analysis. The interview scripts were translated into English to ensure that they reflected the responses from participants whereby the interviews that were recorded on a digital audio recorder were listened to. Data was coded by arranging in groups according to similarities and was put in themes and subthemes. Data analysis was conducted concurrently with data collection so that where ever the researcher was not clear, participants were consulted to confirm if the transcripts reflected their response. There was data triangulation which is discussed on study findings, since the data was the same but was collected from different environments (hospital and home), to evaluate the extent to which all evidence converges.

## **Trustworthiness of the Research**

Trustworthiness in research is the demonstration that the evidence of the results is true and the argument that is made basing on the results is strong. It is explained through credibility, dependability, confirmability and transferability. The credibility of the study was enhanced by making available the tape recordings and transcripts of the interviews. Dependability was enhanced by giving a detailed description of data collection, analysis and interpretation methods to show how the research can be replicated. Confirmability was enhanced by using audit trails such as raw data and process notes which provided a mechanism for retroactive assessment of the conduct of the study. Transferability was enhanced through ,the provision of detailed background information of the participants, the research context and setting so that other people should be able to judge if the study findings apply to them or not.

## **Ethical Consideration**

The research was approved by the College of Medicine Research Ethics Committee (COMREC) through Kamuzu College of Nursing. Consent to conduct the research was sought from the District Health Officer of Dedza District Hospital. A written informed consent was obtained from individual participants and no names were used to ensure anonymity, and the participants were assured of confidentiality.

## **Constraints and Limitations**

The study limitation was that most of the participants were from the catchment area around the district hospital. Shortage of funds and time were also the constraints of the study because it could have been ideal to also visit the participants in their homes.

## **Study period**

The study period was for 25 months. The period comprised conceptualizing the research area, literature review, draft proposal submission, proposal write up, developing data collection, data analysis and report writing. The study period started in the month of August 2016 to September 2018.

## **Dissemination of findings**

The data collected will be disseminated to the staff of the Dedza District Hospital in form of a research report or a presentation of the study findings, in order for them to find solutions that would address the barriers of implementing KMC with the male partners. Other copies will be published for the Kamuzu college of Nursing libraries for academic references. Furthermore, the research results will also be published in journal articles for health care workers across the country and beyond with emphasis on barriers

and facilitators of implementing KMC with male partners so as to promote male involvement in KMC. Dissemination will also be through conferences at national and international forums.

## **Chapter 4**

### **Presentation of Findings**

This chapter presents the findings of the study whose aim was to explore the experiences of male partners in participating in KMC at home and in hospital settings in Dedza district. Demographic characteristics of participants are presented in the form of narratives. The findings are presented in detailed themes that emerged from the data analysis, within the context of the phenomenon under study. The main themes were developed by category scheme. According to Polit and Beck (2014) the most widely used procedure in qualitative data analysis is to develop a category scheme and then to code data according to the categories. A preliminary category system (a template) is sometimes drafted before data collection. Researchers whose aims are primarily descriptive tend to use categories that are fairly concrete. For example, the category scheme may focus on differentiating various types of actions or events, or different phases in a chronologic unfolding of an experience (Polit & Beck, 2014). The themes in this study were derived from the specific objectives. The findings also include direct quotations expressed by participants to illustrate important points from their responses. Six themes emerged from the analysis of the data in response to the objectives of the study as follows: male partners' perceptions of the experience of participating in KMC at the hospital, facilitators to participation in KMC at the hospital, barriers to participating in KMC at the hospital, perceptions of the experience of participating in KMC at home, facilitators to participation in KMC at home and barriers to participation in KMC at home.

## **Demographic characteristics**

The total number of men who participated in the study was sixteen and the variables studied were age, marital status, educational level, occupation and tribe. The participants' age range was 21-40 years in which 13 were aged between 21-30 years, and three participants were between 31-40 years. On educational level, 10 participants went through primary education, two underwent secondary education, two participants underwent tertiary education and while the last two did not go to school. Most of participants were married where by only one was not married. On occupation, eight were farmers, four were doing business; and the last four were formally employed. Finally, on tribe nine participants were of the Ngoni tribe, while six were of the Chewa tribe and only one was from the Tonga tribe.

## **Themes identified**

### **Male partners' perceptions of the experience of participating in KMC at the hospital.**

It was important to know how the male partners regarded the act of providing the KMC, a thing that is mostly done by women since it would also determine their willingness to continue with it. At the hospital the male partners' perception of their experiences of participating in KMC was that, their participation is essential for the mother and baby.

#### ***The male partners' participation essential for mother and baby***

Most of the participants expressed positive views towards providing KMC as a male individual, although it mostly involves women at the hospital. The positive views

were reinforced after understanding the importance of KMC to the LBW and also the reason why the women need to be assisted in providing the KMC.

One participant aged 23 years and a business man said:

*It is an important because it helps the baby not to get cold, I did not take it as a problem because if you are running away from taking care of your child it means you don't love your child but you need to take care of him or her (Participant # 1)*

Another participant aged 23 and a farmer also said:

*It is not wrong to provide KMC because you ease your partner and it helps that the baby should have good health when you do it together. (Participant # 3)*

### **Facilitators to male partners' participation in KMC at the hospital**

Most of the participants explained that it is possible for the men to provide KMC at the hospital. The sub themes on this were: health care worker support, community sensitization, and use of incentives.

#### ***Health care worker support***

Majority of the participants said that health care workers do not give the information on KMC to the men when their wives have given birth to a LBW baby and let alone what is expected of them. They suggested that the men should be told to come to the hospital through their wives as it was done during the course of this study. One participant aged 23 years and is employed as a welder said:

*It is necessary to call us the way you have done now, sit us down*

*and explain to us on what is supposed to happen. (Participant # 6)*

Furthermore, some of the participants explained that it would help to use every opportunity to tell them whenever they come to the hospital. One participant aged 32 years who has a tertiary education level and a teacher by profession said:

*One thing is like you have done now because when a woman comes here at the hospital, the man knows, but most men don't escort their wives, they come with female relatives. However they still come to see the baby when it is born, so when that happens it is good to take advantage to explain to them what kangaroo is all about. It will not be a problem because they can see their baby and they can understand what should be done. (Participant # 10)*

Healthcare workers have a big role to play in ensuring that male partners are taking part in providing KMC. One participant aged 21 years, whose highest level of education is primary level said:

*Teach them, like me I didn't know about it but because you taught me now I know and I was able to do it. (Participant # 11)*

### ***Community sensitization***

This is a process by which the community is made to be aware of and be responsive to certain ideas or situations. The message of KMC to the community does not emphasize male participation so that people should be aware when it happens to them. One of the participants aged 30 years and with secondary level of education said:

*Another thing could be that it could be better if you could find a way*

*to reach us before the problem happens so that we already know what is expected of us. (Participant # 15)*

Additionally, some of the participants expressed how to reach out to the people in the community on KMC. One of the participants aged 32 years and a teacher said:

*It is like the way you are explaining here at the hospital is not enough, you need to conduct community awareness, find a way to reach the community and explain to them. If you are busy, use the HSAs as they already meet the people through their meetings. (Participant # 10)*

### ***Use of incentives***

Most of the participants did not know much about KMC when counselling was done for them to take part. Encouraging male participation with KMC is a new initiative therefore there is need to employ ways to attract them to participate. One of the participants aged 28 years and attended school up to secondary level suggested that one of the ways, is giving the men incentives and said:

*Just that we Malawians most of the times, if there can be a way like it was done in encouraging women to deliver at the hospital and afterwards the women were given something, you can see that the women were following that because of the money they could think ooh I will have money to buy a baby blanket. So if the same can happen maybe it can help. (Participant # 13)*

Another participant aged 25 and a farmer shared the same views of using incentives to motivate the men though he did not manage to say the type of incentive, he stated:

*The hospital should provide anything to attract or motivate the men to come to the hospital to participate in providing kangaroo mother care.*

*(Participant #4)*

### **Barriers to male partners' participation in KMC at the hospital**

Although the male partners were able to provide KMC at the hospital, they had some problems which either made them to not do it the way they wanted or made them uncomfortable while providing the KMC. The subthemes that emerged were lack of time, hospital environment and health care worker's attitude.

#### ***Lack of time***

KMC requires continuous skin to skin contact with the LBW even while at the hospital. The male partners were requested to take part at the hospital and most of them could not afford to be present for longer period of time in a day or in some days because they were busy with other duties to generate income for their homes. One participant aged 23 years, does a business of transport using a bicycle said:

*I cannot afford to be here for a long time since I have to go and work. (Participant # 1)*

Another participant aged 39 years and a farmer stated:

*The thing that makes it difficult for me is that I have other things to do, so I am also busy with some work so I cannot manage to provide the kangaroo care even if I want to, at all times.*

*(Participant # 2)*

#### ***Hospital Environment***

The setup of the KMC unit at Dedza District hospital is in a way that it is not a very big room and it can accommodate up to seven beds and when the mothers are many two mothers occupy one bed. Most men expressed that they were not comfortable to stay in the room with women and put the baby on Kangaroo. The initial plan before implementing the KMC with the male partners was to use mobile bed screens to provide privacy. Unfortunately the bed screens were not available in the maternity unit at the time of data collection, and the options were to either still provide KMC in the KMC unit as the women or to find a private room used for other services in the Maternity department like a room used for counselling. Most men opted to use a different room while a few others were fine with providing KMC in the KMC unit with women around.

One participant aged 22 years and was able to provide KMC in the KC unit at a time when there were only two mothers with KMC babies said:

*On the part of the place, there is need to add more space so that people should be free and comfortable. The place is not enough, so to be there until the required weight, the room cannot accommodate many people freely. (Participant # 3)*

Another participant aged 28 years, and opted to provide KMC in a different room said;

*The problem that I have seen is that there are many women, so for you just to pass, it is not on and for the place to have a bed for a male parent and next a female parent, men can feel shy. Unless if they can change to say, this room is for men and this is for women, I think that can work. (Participant # 14)*

### ***Health care worker's attitude***

Health care workers can have an influence on the male partner's participation on KMC or any health service depending on how receptive they are. Some participants felt that the attitude of some health care workers regardless of cadre was not good as to the experience they had when they were coming to see their LBW baby. One participant aged 23 years and provided KMC on two sessions during the day in the hospital said:

*Here at the hospital, there is one problem of being shouted at, on the issue of time, on visiting hours, because as a man you may have a different time that you want to come and when you come like 11 o'clock and you are sent back, then you have prevented us. (Participant # 1)*

Similarly, another participant aged 39 years was prevented from entering the KMC unit by a health worker when he came to provide KMC and he said:

*The problem was that we were told not to come in by other hospital staff because we are men. (Participant # 2)*

In addition to this, another participant aged 28 years experienced a problem of being shouted at while providing KMC and said:

*But sometimes (laughs) the way the female doctors talk, eeh it is like they are insulting you or like commanding, so it's the way they talk "like can you tie like this!! (Participant # 14)*

### **Male partners' perceptions of the experiences of providing KMC at home**

The home environment is different from the hospital environment and the male partners would have been influenced to feel in a particular way due to the experience with KMC at home considering that they could also have done it for a longer period of time. The perceptions at home were both negative and positive and the sub themes that emerged from this theme were: a rewarding experience and physical burden.

### *A rewarding experience*

The participants expressed positive comments towards providing KMC at home because they had practiced for a longer time and the good response they perceived from the babies when put on KMC motivated them. One participant aged 21 years and a business man stated:

*The babies when they were just put down, they were crying a lot, but when put on Kangaroo position they were calm, so I saw it as a good thing. (Participant # 11)*

Similarly, there was another participant aged 40 years who is a teacher, and he experienced a tremendous improvement in his twin LBW babies when he was participating in doing KMC and stated:

*At first it was a problem because the babies were with the ladies (wife and mother in-law) away from me, so I was not able to participate and even they did not fully understand the point of Kangaroo, as they thought that more blankets can keep the babies warm and when they came for follow up it was found out that the weight was not improving that's when I decided to participate more in putting the babies on kangaroo, and when they came again for weighing, it improved so much, so I was able to*

*compare when the kangaroo was not practiced and when it was done continuously. I've seen that it is helpful. (Participant # 16)*

### ***Physical burden***

When positioning a baby on the KMC position on the chest, there is need to secure the baby with a cloth covering the baby and tying at the back of the care giver (MOH 2015). The tying of the cloth is supposed to be firm not tight, however it has to hold the baby to be in upright position so that it should not fall down. This was a problem to some of the participants since they experienced some pain with the knot at their back. One participant aged 25 years, a farmer and never attended school said:

*I was feeling just fine, only that after tying the cloth I was feeling pain. (Participant # 5)*

Furthermore another participant aged 25 years with educational level of secondary school, said that the reason for not being comfortable was because of the position that is to be maintained while providing the KMC, and he stated:

*The thing is that knot that is tied at the back is painful after some time and to lean on your back, eeh it was painful. However it is not very difficult for someone doing it for a short time, and as for my wife she was also saying that it is hard. (Participant # 14)*

### **Facilitators to male partners' participation in KMC at home**

The male partners provided KMC at home as they were requested and there were things that made it easier or influenced them to do so. The subthemes that emerged were family support, and health care provider initiative.

### ***Family support***

One of the elements of KMC is support which can come from the relatives or the community. The support can be in a form of taking part in providing KMC or encouraging the parents with LBW babies to follow the instructions on KMC. Most of the participants received support from their relatives, some were encouraged to continue with skin to skin contact with the LBW baby while others were also helped with the actual provision of KMC. One participant aged 22 years and a farmer, who was encouraged to continue providing KMC at home stated:

*They helped us by encouraging us and we also have a neighbor who had a premature baby before and was on kangaroo, she encouraged us not to worry, we should just adhere to instructions that we received from the hospital. (Participant # 3)*

Another participant aged 25 years and a farmer, who also received encouragement from relatives stated:

*They were encouraging me not to leave the baby off from the kangaroo position for a long time. (Participant # 4)*

Similar to this participant, another participant aged 32 years and had twin babies, received help from the mother in-law with the actual KMC and stated:

*They were encouraging, and at first I was reluctant at home, but my mother in-law encouraged me that the baby is for both of us and I did well more than my wife. (Participant # 10)*

Another participant aged 23 and a business man, who also had support from relatives stated:

*They helped in positioning the baby on kangaroo on my chest, and sometimes the grandmother was also putting the baby on kangaroo. (Participant #1)*

***Health care provider initiative***

Most of the participants had the opinion that for male partners to also get involved at home with KMC, then they should still know about it at the hospital after their wives have given birth. One participant aged 25 years and a farmer stated:

*When the mothers come here and you tell them about the condition of the baby, they should be telling us and we will be coming, and even at home we will be helping them so that the baby should have a good health. (Participant # 5)*

Another participant aged 30 years and a business man stated:

*The main thing is to tell the men so that they should be aware. (Participant # 15).*

Another participant aged 35 and works on small piece jobs in people's homes stated:

*It is not difficult for men to participate because everyone comes here at the hospital, where many instructions are gotten from, that is why there are also rules that women should deliver at hospital to hear everything needed for their health. (Participant # 12)*

Furthermore there was a suggestion that health care workers should encourage women to come with their spouses at the hospital because it would also make it easier for them to participate with KMC. They will already be at the hospital and will be informed

on the need of taking part in providing KMC if they have a LBW, and they can get involved there at the hospital and continue at home. One participant aged 21 years and a farmer stated:

*The men should accompany their wives when coming to the hospital, to know everything that should happen to their wives". (Participant # 9)*

### **Barriers to male partners' participation in KMC at home**

While providing the KMC at home, the male partners had some problems to provide the KMC effectively. The subthemes that emerged were, lack of time, female partner attitude and cultural norms.

#### ***Lack of time***

Majority of the participants did not provide KMC the way they would have wanted because of time. A participant aged 26 years and a farmer who was putting the baby on KMC for two sessions during the day and two sessions during the night stated:

*Other things to do during the day, made it difficult to always be there. (Participant # 8)*

Some of the participants did not manage to provide KMC even once during the day. One participant aged 22 years and a farmer, was not able to provide KMC during the day and stated:

*I could not, because I was at the garden. (Participant # 3)*

Another participant aged 32 years and a teacher was also not able to provide KMC during the day and stated:

*I was not able because I had to go to work, and came later in the afternoon. (Participant # 10)*

### ***Female partner attitude***

A few participants raised concerns about the attitude of their wives as they were helping with KMC. One participant aged 22 years and a farmer stated:

*Sometimes after taking the baby from the mother and she is somehow far away, it happens that the nappy is wet, for men like me yes we are taking part but we cannot manage because the baby is small, rather the mother should be near because when she is far, it becomes a burden to the man. (Participant # 3)*

One participant aged 40 years and a teacher explained that some women may not understand that it is not possible to always be available to provide KMC and it can cause conflict in the home, he stated:

*Maybe women sometimes regarding what they have been told, this can be a problem to the women when you tell them that men should be involved they think like you are not supposed to go anywhere, yet you should also go to work. A certain day I had to go to work and I wanted to finish all the work, therefore I took time and yet there was this issue of kangaroo, so at home they thought I had deserted them, so please explain to them properly. You cannot be at home all the time, you need to go and find money for the home as well. (Participant #16)*

### ***Cultural norms***

Male partners are not involved in the care of their new born in Africa (Seidman et al., 2015). It is believed that this is caused by culture, where it is expected that care of the

newborn is the responsibility of the female parents only. In this study, most of the men were from Chewa, and Ngoni tribe, where by only one was from the Tonga tribe. There were some participants who explained that men do not get involved with direct care of the new born because of their status and behaviour as men. One participant aged 23 years and a Chewa stated:

*They just buy material things for the baby, but not carrying the baby, maybe the youth like me but these elderly men, many of them go to work or to drink beer, therefore I have never seen them taking care of their babies. (Participant # 13)*

However, another participant aged 35 years and a Chewa by tribe as well, explained that it was acceptable for a male partner to be involved in the care of the newborn as he was already doing and he stated:

*No it's not forbidden for the male parent and that's what is needed, even for me that is what I do even fetching water, you can ask my wife, when she is busy with the baby I even wash the baby's clothes (Participant # 12)*

A participant aged 28 years and a Ngoni by tribe explained that the mother in-law mainly takes care of the baby after birth and stated:

*From where am coming from many men do not take part, even bathing the baby, I don't have to be there. I don't think that is how it should be, it's just maybe respecting the mother in law who is mostly involved so you can't always be there, but*

*there are a few people who still participate with care of their newborn. (Participant #14)*

Nevertheless, some of the participants regardless of the tribe they were from, explained that it is acceptable for a male individual to take part in the care of the newborn, and that it is just a personal preference whether to take part as they were doing or not.

One participant aged 39 years and a Ngoni by tribe stated:

*Hmm our culture expects us to take care of the newborn together, maybe if the mother is not available, you can bath her/him, or when sick take the baby to the hospital. (Participant # 2)*

Another participant aged 32 years and a Tonga explained that some just choose not to take part but it is acceptable to take part, he stated:

*For the Tongas it is not very much, some of us have changed because of travelling to other places, but generally men from many cultures cannot change a diaper. I was however requested to change my baby's diaper and was able to do it. So it is up to you the way you want to do it. (Participant # 10)*

## **Conclusion**

The study findings, uncovered major areas of clinical importance. Male partners understood and appreciated the importance of participating in KMC at the hospital and at home. Most of them were not aware of what KMC is all about and the importance of helping their spouses, and that is why there is low participation. There are still challenges for them to take part freely in the hospital, mainly on the issue of space which

is not enough and they are also not comfortable to mix with other women. Community sensitization is key for the men and everyone else to understand the importance of male participation in KMC. It has also been established that culture can be changed, if they are fully aware of the role they can play in KMC and the importance of their involvement, they can take part without problems. This gives health care providers a platform to develop strategies to promote the participation of male partners in KMC.

## **Chapter 5**

### **Discussion of Findings**

This section discusses the findings of the study and the implications they have on clinical practice (Aveyard, 2010). The study was undertaken at Dedza District Hospital before the discharge of the LBW babies from the hospital and on the follow up visit. The discussion of the findings will be based on study objectives which were to; establish the male partners' perceptions of experiences of providing KMC within the hospital and home settings, explore the facilitators to male partners' participation in KMC within the hospital and home settings and to explore the barriers to male partners' participation in KMC within the hospital and home settings. The implication of the study to clinical practice and how they relate to the published information will also be discussed. This chapter will also include study recommendations and areas for further studies.

#### **Major themes identified**

##### **Male partners' perceptions of the experiences of participating in KMC within the home and hospital settings**

###### ***Male partner participation essential to the mother and baby***

Most of the participants expressed positive views towards providing KMC as a male individual at the hospital and at home. They expressed an understanding of their important role in ensuring continuous skin to skin contact with the LBW which is vital for the baby's survival. In line with this, a study by Feeley, (2013) in Canada found that some of the fathers perceived their participation in KMC as being equal and virtually indistinguishable from that of the mothers. They believed that they had a critical role to play in their child's care and the need to be involved to optimize child development.

Involvement was also important to create a trusting, loving environment for the child, help the child know their father, and communicate to the child through their presence. However, all of these fathers were on paternity leave or self-employed and they spent most of the day every day in the NICU, typically with their spouse.

The study findings in a systemic review by Sheeba, Harshita, Suhaila & Erna (2015) also found that fathers were more excited and confident to provide KMC and it provided an opportunity to fathers to do something special for their precious babies and build an everlasting bond. It has also been found that KMC method develops a more stimulating context for the baby, especially when the father is actively involved, and also promotes sensitive paternal behaviour through direct and early interaction with the child (Tessier et al., 2009; Varela, Muñoz, Tessier, Plata, & Charpak, 2014). Male partner involvement is beneficial to the mother and the LBW, therefore midwives should promote it and encourage them to do it at the convenient time which can be during the day at the hospital and during the night at home.

Furthermore, in other studies it was also found that positive perceptions among mothers, fathers, and families regarding the potential benefits of the intervention promoted KMC uptake. Some fathers reported feeling relevant and enjoyed participating in the early care of their newborn (Smith et al., 2017; Chan et al., 2015; Feeley, Sherrard, Waitzer, & Boisvert, 2013). Moreira, Romagnoli, Dias and Moreira (2009) found that paternal involvement played a large role in KMC uptake, either by division of labor or by helping the mother feel comfortable. A multi-country analysis of health system bottlenecks and potential solutions in Kangaroo mother care study by Vessel et al. (2014) revealed that on the bottleneck assessment, participants also underlined the important role

men could play in improving the uptake of KMC as a result of their traditional role as decision-makers. They could also physically support their partners by providing intermittent KMC which has been seen in Latin American and Caribbean countries (Dominican Republic, Colombia and others) and in Europe, where fathers have become regular caregivers for preterm babies.

In Malawi, men are the decision makers and if they are involved in the care of their LBW they can ensure that the baby is cared for as required. Participants in this study were very pleased to have been given that opportunity since most of them were not aware of what KMC is and more especially that they can participate.

#### *A rewarding experience*

The participants expressed positive comments towards providing KMC after experiencing the good response they perceived from the babies when put on KMC which motivated them especially after they had practiced for a longer time at home. Gutierrez (2012) and Olsson et al. (2017) found that the babies were calmer in the KMC position compared to when they were put down in a crib, and they also noticed that the values on the monitor were becoming more stable during KMC. However in the already mentioned studies of Gutierrez (2012) and Olsson et al. (2017), which were all qualitative studies, the men were nervous at first and had fear of hurting the baby whereby eventually they got to love the whole thing and expressed positive comments. This is probably the same with the participants from this study who felt that the experience was motivating after they had practiced for more than a week as they were coming for follow up visit at the hospital.

### ***A physical burden***

Some of the participants felt uncomfortable with the knot at their back because it was making them to feel pain and also when leaning on the back when sleeping. This was also found by Olsson et al. (2017); Blomqvist et al. (2013); Leonard and Mayers (2008) and Seidman et al., (2015) where some fathers felt a physical burden and became exhausted or developed backache. However, they were clear about the sacrifices required in performing KC, such as spending day and night in an uncomfortable bed. At home, the parents missed the KMC carrier they had borrowed during the NICU stay, as it was more difficult to perform KMC without it (Blomqvist et al., 2013). In Malawi the KMC carriers are not common and therefore there is need to find ways to address the issue of pain on the knot at the back

### **Facilitators to male partners' participation in KMC at the hospital and home settings**

#### ***Health care worker support and initiative***

Most of the participants suggested that health care workers have a big role in ensuring male partner involvement in KMC whereby they should call the men to come to the hospital through their wives as it was during the course of this study and explain to them what KMC is all about and for them to participate. This is in line with what was found by Chan et al, (2015) that healthcare workers were critical for implementation of KMC in hospitals or health facilities whereby their main role was to educate the parents about KC. In other studies it was found that, KMC uptake was promoted by the presence of engaged health care workers whereby competent NICU staff facilitated the fathers' use

of KMC (Olsson, 2017; Blomqvist et al., 2013; Lemmen et al., 2013; Sisson, Jones, Williams, & Lachanudis, 2015; Feelay et al., 2013 ).

This initiative that has to be done by health care workers was also discussed at a forum in Latin America. In June 2014, the USAID ASSIST project which supports the Salud Materno Infantil (Maternal and Infant Health) KMC Community of Practice program, hosted its second virtual discussion forum in Spanish on "Experiences in startup and early consolidation of KMC activities in hospitals in Latin America: favorable aspects, constraints and lessons learned." They discussed the importance of couples' counseling as a much more effective method to achieving enrollment and retention in the KMC. Husbands often hold decision-making power within families in Latin America, and from a gender perspective, it is important to educate them about the importance of KMC so that they are aware of its benefits and are able to support their wives to use the KMC method and also take part themselves (Pasquier, 2014).

This shows that health care workers are the main source of information to the male partners and should do so to promote male partner participation. Dumbaugh et al. (2014) in a study on Perceptions, attitudes towards and barriers to male involvement in newborn care in rural Ghana, West Africa, many men expressed a desire, some very enthusiastically, to play more of a role in their newborn care and health. A lack of knowledge was frequently cited as the reason for current non-involvement and some men were motivated to learn more about their newborns to enable them to be involved.

However, there are other studies which have shown that the health care workers can be a barrier due to the health care workers' attitude towards the men (Heinemann, Hellstrom & Nyqvist 2013; Blomqvist et al., 2012 and Leonard & Mayers, 2008). This

has been explained in detail under the theme of barriers because it was also found in this study. Therefore, it is important for nurse midwives to provide necessary information on KMC and male participation and provide the support needed because they can either promote the initiative or prevent its success.

### *Community sensitization*

Most of the participants suggested that community sensitization can help in spreading the message that male partners can take part in providing KMC at the hospital as well as at home. If people are aware of it they can support the families with low birth weight babies, and the male partners can be aware before they meet the situation thereby promoting their participation. This was also found by Chen et al. (2017) whose study results showed that a small percentage of fathers in their study expressed anxiety about the KMC intervention techniques because of a lack of preparation before post-partum. It was therefore suggested that future intervention instructions be delivered to the community, at the antenatal clinic and be incorporated into formal childbirth education courses for expectant fathers in order to allow sufficient time for learning and practice.

This is also in line with a project on KMC, done by Save the Children in Kenya. Nyamamu (2017) reported that the project supports demand creation at community level which includes male involvement in maternal and newborn health issues through discussions in male barazas (public meeting place used as a platform for creating awareness and responding to issues). The men are encouraged to support mothers who are providing KMC starting from the KMC unit. Whenever male partners come to visit their partners at the KMC unit, they are taken through a health education session on KMC

benefits and how to practice it both at the facility and at home. Men are encouraged to provide support in terms of performing other household duties as well as assisting the mother to position the baby on KMC as she attends to other duties. They are also encouraged to accompany mothers to support group meetings where information and experiences are shared. Community sensitization is very important therefore, healthcare workers should use every opportunity to sensitize the community on male partner participation and KMC which can be at village meetings or on open day meetings related to maternal and newborn health issues.

### *Use of incentives*

Encouraging male participation with KMC is an initiative that needs motivation strategies because it is not emphasized and people are not used to it. One of the participants suggested that one of the ways, is giving the men incentives in form of rewards such as money so that they get motivated to participate. This is in line with what was done in a study by Choko et al. (2017) who also recommended financial incentives especially for transport to the male partners for them to come for testing in a study which was on: acceptability of woman-delivered HIV self-testing to the male partner, and additional interventions in Malawi. In another study on striving to promote male involvement in maternal health care in rural and urban settings in Malawi by Kululanga et al. (2011) Mwanza District Hospital used competitions among communities in different traditional authorities to advance the male involvement programme. UNICEF organized the competition in 2008 and a Traditional Authority and village chief that had high proportion of couples attending antenatal clinic received a prize. The use of the

incentives motivated village chiefs to become vigilant in promoting male involvement. The village chiefs advised health care providers not to attend to any woman who came to the antenatal clinic without a husband in order for them to get a prize. The health care providers explained further that when the competition came to an end there was a decline in the number of couples attending ANC services. The health care workers viewed that the competition was a motivating factor for the men to participate in maternal health care. However, the strategy failed to induce behavioural change towards male participation in facility based maternal health care therefore it was not sustainable. It is therefore important to analyze motivational strategies in form of incentives if they can be sustainable before implementing them.

### ***Family support***

Most of the participants received support from their relatives in form of encouragement to continue with skin to skin contact with the LBW baby, while others were also helped with the actual provision of KMC. Furthermore the participants who were seen by other people in the community did not receive bad comments, although themselves had the opinion that people would laugh at them for doing something perceived to be women's job. This was also found by Blomqvist et al. (2013) and Hunter et al. (2010) whereby KMC uptake was promoted by societal acceptance of paternal participation in childcare, by family and community acceptance of KMC. However Olsson et al. (2017) found that the support from the community mostly concerned employers enabling the fathers to take time off work, and the social insurance agency was also a part of the societal support by compensating fathers for the reduction in salary, thus enabling them to be present at the NICU and at home to provide KMC.

In other studies from developing countries both mothers and fathers did not feel supported by their families or communities (Chan et al., 2015; Sa'Fed et al. 2010). Charpak and Ruiz-Pelaez (2006) found that fathers reported lack of support from society and frequently voiced discomfort about performing KMC because of societal norms, as many fathers felt that childcare should be the role of the mother. Family support to the male partners was shown in studies that were done in Sweden where the society is used to male partners participating in KMC. The ones where there was lack of support, the studies were done in different developing countries such as Zimbabwe, where male participation in newborn issues is not fully implemented due to societal norms, hence the difference. The society and families need to be aware of the importance of supporting parents especially men who are providing KMC to their baby because healthy babies will make a healthy nation and this could probably change their mind set on participation of men with KMC.

### **Barriers to male partners' participation in KMC at the hospital and home settings**

#### ***Lack of time***

Most of the participants did not provide KMC the way they would have wanted because of time. Most of them had to go to work during the day making it difficult for them to be at the hospital full time. This is in line with what Leonard and Mayers (2008) and Blomqvist et al. (2013) found where by the time needed to provide kangaroo mother care was a potential barrier for fathers, due to responsibilities at home and work and time needed for commuting, preventing them from devoting the time needed for continuous and extended kangaroo mother care. Dumbaugh et al. (2014) also found that many men

also cited work- and money-related reasons for their inability to be involved in care of their newborn. These were associated with lack of time, a need to make money and provide for the family as head of household.

In this study, the participants provided the KMC to the newborn babies during the day and none during the night due to the lack of time. This was also found in a study by Mukhopadhyay et al. (2004) and Chen, Gau, Liu and Lee (2017) who looked at the involvement of fathers in KMC. In the study by Mukhopadhyay et al. (2004) the mean duration of KMC given by the fathers was 2.8 hours/ day until the baby was discharged. Interviews with families where both parents were involved revealed that fathers were more supportive to the mother during the hospital stay and after discharge, and the babies had increased duration of KMC on follow up. In the study by Chen et al. (2017), the fathers performed KMC for a minimum of 15 minutes per session for three sessions in three days and the sessions took place in a secluded section of the nursery or ward. The study results confirmed positive effects of KMC intervention on the infant care behavior of fathers in terms of exploring, talking, touching, and caring and on the enhancing of the father-neonate attachment relationship at three days postpartum. These studies demonstrated that father involvement with KMC has positive effects on the baby and the father; even with little time like 15 minutes, there can be an impact, and the mother can have the opportunity to rest or do other things. Therefore, nurse midwives should encourage the men to assist women with KMC even for a few minutes that they can afford.

Most of the participants in this study performed KMC more at home, during the night. This was also found in a study by Blomqvist et al. (2013) on Provision of

Kangaroo Mother Care: supportive factors and barriers perceived by parents, whereby most of the male partners while at home, performed KMC more sessions at night than during the day. It is therefore evident that most male partners are well able to take part during the night therefore they need to be encouraged to provide the KMC when they are able, since the female partner can still have time to rest when the father is helping.

In other studies, Olsson et al. (2017) and Sisson et al. (2015) in Sweden, found that the employed male partners had enough time to provide KMC because some of them received support from their workplace where by they were allowed to take time off from work, which made it easier for them to relax and spend time in the NICU. This was possible because in Sweden, paternity leave entitlement for fathers is equal to the entitlement for mothers. It is therefore important to take into consideration the issue of time when counselling the men, because those who are employed, are not allowed to stay away from work when they have a newborn. Furthermore, most of the Malawian men are not formally employed and they depend on farming which is a daily work.

### ***Hospital environment***

The participants complained of the space being small and lack of privacy. It was uncomfortable for the men to mix with the women. They felt that it could have been better if there were separate rooms for men and women or for couples therefore most men opted to use a different room while a few others were fine with providing KMC in the KMC unit with women around. This was also found by Blomqvist (2012) that lack of privacy was perceived as an obstacle to KMC, as there was limited available space and inadequate number of screens to provide sufficient privacy when the parents had the infant skin-to-skin. Feeling uneasy with being undressed in front of strangers was

common, generally, it could be difficult to maintain a private atmosphere in the NICU, therefore single-family rooms are preferred because they allow privacy (White, 2011).

The study that was done by Olsson et al. (2017) found that some privacy when providing KMC was regarded as supportive. Having screens to form a private cubicle in the intensive care room was appreciated, together with enough space and possibly a bed to use for KMC. The fathers also described the positive effects of staying with their infant in a family room, which made them feel even more like parents, as well as providing some distraction such as a television, while performing KMC. Nurse midwives need to address the issue of privacy by using mobile or immobile bed screens if available and in hospitals where total privacy can be possible, the men should be allowed to provide the KMC.

#### *Health care worker attitude*

Some participants felt that the attitude of some health care workers regardless of cadre was not good as to the experience they had when they were coming to see their LBW baby. They were shouted at in the hospital while providing KMC while others were prevented from entering the KMC unit because they are men. This is was also found by Leonard and Mayers (2008) whereby a participant was sent out of the KMC ward while he was providing KMC because he was a man. Fathers who were excluded by KMC ward rules from the living-in experience, felt frustrated and helpless at being unable to interact with their infants. Other studies found that healthcare workers were occasionally considered to be loud and uncaring by parents (Heinemann, Hellstrom & Nyqvist, 2013; Blomqvist et al., 2012). Healthcare workers should be supportive in their

words and actions, by providing privacy for the family as they learn KMC and by ensuring unlimited visitation hours so that KMC can happen without time or schedule constraints (Smith et al., 2016). Therefore, health care workers should not be a barrier, rather they need to facilitate the promotion of male partner participation in KMC.

### ***Female partner attitude***

Much as it is important that male partners should take part in the provision of KMC or any matters on maternal and newborn health, it was discovered that there may be some misunderstandings between the mother and father on sharing of roles when taking care of the LBW baby, leading to family conflicts. This is because the male partner is still expected to go and work and also he may not be in a position to take care of the baby solely on his own without the help of the baby's mother. In this study, a few participants raised a concern on the attitude of their wives as they were helping with KMC because the wives expected a lot, such as full time participation from the men which was not realistic. It is necessary to be aware of such issues and decide how best they can be solved.

The World Health Organisation has declared the involvement of men in maternal and newborn health as a priority. It is one of the eight “strong recommendations” in a list of 12 in the published WHO recommendations on health promotion interventions for maternal and newborn health. However, WHO recommends the need for further research to examine the impact of male participation on family relationships, including those involving grandparents (Chou, Daelmans, Jolivet, Kinney & Say, 2015).

### ***Cultural norms***

Most of the participants felt that although they were aware of the perception that it is just a woman's responsibility to take care of the new born, they explained that it is acceptable for a male individual to take part in the care of the newborn, and that it is just a personal preference whether to take part as they were doing or not. Most of them did not receive negative comments from the community when they were putting their LBW baby on KMC. However, very few participants had problems to take part fully in providing KMC since they were not given the opportunity and the mother in-law was responsible for the care of the newborn and the mother of the baby. In settings where seclusion practices are common the first 40 days post-delivery, the baby is kept in another room with the mother or grandmother, to allow the mother to recover and the male parent is left out, making it difficult for some men to provide KMC at home (Vessel et al., 2015). This was also found by Dumbaugh et al. (2014) that there was strong influence of elder women which made it difficult for men to involve themselves in newborn care even if they were motivated. Many women had their mothers stay with them or traveled to their mothers' homes sometime during pregnancy, birth, or the postpartum period. Men expressed frustration with the dominating influence of some mother in-laws and were discouraged from involving themselves in decision making processes and care of the newborn. It is important to address how the issue of secluding mother and baby can affect male involvement with KMC, so that people can understand the need to change it.

In other studies by Chan et al. (2015) and Smith et al. (2016) in review of some studies it was found that gender roles acted as a barrier for men to participate in care of their newborn. In the reviews, countries that were affected were also from Africa like

Malawi, hence similar findings. However, it was emphasized that promotion of uptake of KMC should involve engaging all of the community including cultural, religious, and community leaders, enlisting support from grandparents and family members. Men can make positive behaviour change, but it is critical to first understand existing gender roles in the community and to determine the barriers that stand in the way of men making changes and enablers to help them change. Therefore, emphasis should be on helping men to understand how gender norms can negatively affect their wives' and children's health (USAID, 2014).

Overall, this study revealed that lack of time was a challenge to the implementation of KMC at the hospital as well as at home for the male partners to provide it consistently. They either had to go to work or go to their garden to take care of their crops which are sold as a source of income. With the evidence that it does not require the men to be available all the time for them to show that they are being supportive to the female partner, health care workers need to illustrate that for the little time the men can have while visiting at the hospital they can still participate in KMC. At home they can still find time and that there can still be a positive impact to the baby and the mother.

### **Limitations of the study**

It was difficult to find relevant literature on male partner participation in KMC from African countries because most studies had concentrated on mothers and health care workers participation. The results are not from a wide area because most of the participants were from near the District hospital, because they were easily available to

take part in providing KMC, since they were supposed to come to the hospital for a number of sessions.

### **Recommendations**

The findings have great implications for implementing KMC at the hospital and home settings. The recommendations have been made in terms of nursing midwifery practice, research, education and nursing midwifery management.

#### **Nursing midwifery practice**

Nurse midwives have an important role of working with families on KMC and to provide family centered care by involving the male partners in issues of KMC. Men should be included in the provision of KMC from the hospital and at home, because they are the immediate support system to the mothers and have an influence in the running of their families. This is in line with Palm (2014), who describes how the father's role in the family in general has shifted since the 1960s from “being there” where the fathers can be seen as supplementary playmates to “being with” today, where the involvement of fathers is becoming the norm. Palm (2014) also suggests that fathers should be supported in learning the necessary caregiving skills. It is therefore, essential to call the men when they have a LBW baby while at the hospital and inform them on what is expected of them on the care of their baby. Since most of the men expressed that lack of time would be a major challenge to their involvement, healthcare workers should help the men in analyzing their schedule to see if it is possible to find some time during the day at the hospital or during the night at home since the LBW baby needs continuous skin to skin contact and the mother might need time to rest.

The health care workers need to use every opportunity in sensitizing the community so that when they see men taking part in KMC at the community they should encourage them, since it was also revealed that most of the people in the community are not aware that KMC can be done with men and that sociocultural factors can affect their participation. Health care workers are vital in ensuring that male partners are well informed and understand their role in participating in KMC (Sisson et al., 2015). HSAs can incorporate this in their health education topics, and also during antenatal clinics the message can be given to couples. When engaging with the community on issues of maternal health, KMC and male involvement can be emphasized as it is done on other male involvement initiatives on maternal and newborn health.

### **Nursing midwifery research**

Promoting participation of male partners in KMC in the hospital and home settings would reduce the number of neonates dying due to prematurity at the hospital and at home, therefore there is a need to conduct a similar study at a large scale. It would also be helpful to conduct a correlational study by assessing the outcome of involving male partners and comparing with the outcome when involving women only.

### **Nursing midwifery education**

There should be inclusion of male partner involvement in all maternal and newborn health services in the curriculum so that students are fully equipped before they go for practice in the clinical area where they should encourage the men at the maternity ward or antenatal clinic, by counselling them together with the female partners. For the health care workers who are already in the service, in-service education and mentorship

should be done on male involvement and also during Continued Professional Development (CPD) sessions.

### **Nursing midwifery management**

On the issue of negative healthcare worker attitude to parents and guardians, the managers should institute continuous auditing of respectful midwifery care and also ensure that exit interviews of patients and clients are done to influence the change of attitude in the health care workers. Several meetings should be conducted with nursing midwifery managers on policy formulation to include male involvement on maternal and newborn health issues including KMC so that everyone should follow the protocol.

The managers should also advocate or lobby for an accommodating environment in the KMC wards, such as cubicles or rooms where couples can have privacy and family time while providing KMC. This is also highlighted by Sisson et al., (2017) that today, many NICUs are being converted into single room units where the family can stay together with the infant. This is a natural step towards more family centered neonatal care. Blomqvist (2012) also attests to this that the NICU environment should be improved to become as family centred as possible, and provide both verbal and non-verbal messages that invite parents to stay with their infant around the clock and perform KMC and other care-giving activities as much as they wish and the infants' condition allows. The managers should also devise KMC carrier bags which are more comfortable than having to use the women's wrapper which is painful when tied at the back to secure the LBW baby on skin to skin position.

## **Conclusion**

Continuous skin to skin in KMC, needs a lot of time and energy from the provider and the mothers who are the main providers need support from the male partners. There is documented evidence on the benefits of male partners' participation in KMC. The male partners in this study were happy to participate and mainly had positive experiences such as perceiving it as a rewarding experience, however they were not aware of the role they have and the importance. There are some barriers to male participation in KMC with male partners like health care worker attitude, hospital environment and lack of time. However the male partner's participation can be promoted by dealing with the barriers. While ensuring privacy in the environment of KMC at the hospital by having cubicles cannot happen immediately, use of bed screens if available for privacy can help. Health care worker initiative or support and community sensitization are key elements in ensuring male participation in KMC in Malawi.

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## Appendices

### Appendix A: interview guide for male partners

Code number..... phone number.....

Date of interview.....

#### Part 1: Demographic and Socioeconomic data

|   | QUESTION                     | ANSWERS  | Code                            |
|---|------------------------------|--|---------------------------------|
| 1 | How old are you?             | .....<br>.....(years)  |                                 |
| 2 | What is your marital status  | Married<br>Divorced<br>Widowed<br>Single<br>Other (specify)        | 1<br>2<br>3<br>4<br>5           |
| 3 | What tribe do you belong to? | Lomwe<br>Ngoni<br>Yao<br>Sena<br>Chewa<br>Tonga<br>Other (specify) | 1<br>2<br>3<br>4<br>5<br>6<br>7 |
| 4 | Which religious              | CCAP   | 1                               |

|   |   |                            |   |
|---|---|----------------------------|---|
|   | denomination do you belong to?          | Roman Catholic             | 2 |
|   |   | Anglican                   | 3 |
|   |   | Pentecostal                | 4 |
|   |   | Other(specify )            | 5 |
| 5 | What is your highest level of education | None                       | 1 |
|   |   | Primary school             | 2 |
|   |   | Secondary school           | 3 |
|   |   | Tertiary                   | 4 |
| 6 | What is your occupation?                | Business(specify)          | 1 |
|   |   | Formal employment(specify) | 2 |
|   |   | Farmer                     | 3 |
|   |   | Other (specify)            | 4 |
| 7 | How many children do you have?          | 1-2 years                  | 1 |
|   |   | 3-5 years                  | 2 |
|   |   | 6-10 years                 | 3 |
|   |   | 11-14 years                | 4 |
|   |   | 15 above                   | 5 |
| 8 | What was the birth weight of the baby   | 1000-1200 grams            | 1 |
|   |   | 1300-1500 grams            | 2 |
|   |   | 1600-1800 grams            | 3 |

|   |  |                  |   |
|---|--|------------------|---|
| 9 | How long have you stayed in the hospital with the baby | 1-2 weeks        | 1 |
|   |  | 3-4 weeks        | 2 |
|   |  | Others (specify) | 3 |

**Part 2: Before discharge**

**Perceptions of participating in KMC at the hospital**

Tell me how you perceived the experience of providing KMC

Probes

- What are your views regarding you as a male individual providing KMC?
- Were you comfortable when providing KMC, and why?
- Will you continue to practice KMC at home and why

**Facilitators and barriers to the male partners in participating in KMC at the hospital**

Tell me on the things that can help or influence you to practice KMC in the hospital

Probes

- What support did you receive from health care workers as regards to you providing KMC?
- What do you think about the hospital environment in enabling you to provide KMC in the hospital?

- What other things should be done to promote male participation in providing KMC at the hospital

Tell me on the things that made you to have difficulties in providing KMC in the hospital

- On the hospital environment
- Care of the baby on KMC
- Relationship with hospital staff
- Relationship with your partner and relatives

### **Part 3: At home/ on follow up visit**

#### **Male partners perceptions in participating in KMC at home**

Tell me how you perceived the experience of providing KMC at home

- What are your views regarding you as a male individual providing KMC at home?
- How comfortable did you feel when providing KMC at home?
- Are you continuing practicing KMC at home and why?

#### **Facilitators and barriers to male partners in participating in KMC at the home**

Tell me on the things that can help or influence you to practice KMC at home

Probes

- What support did you receive from relatives and community members as regards to you providing KMC?

- What do you think about the home environment in enabling you to provide KMC at home?
- What other things should be done to promote male involvement in providing KMC at home?

Tell me the things that made you to have difficulties in providing KMC at home

- On the home environment
- Care of the baby on KC
- Relationship with your partner and relatives

What does your culture say on male involvement in care of the new born?

**Appendix B: chichewa version: mafunso kwa a bambo**

Code ..... Nambala ya phone  
yanu.....

Tsiku.....

**Gawo 1: Zamoyo wanu ndi chuma**

|   | Funso                     | Yankho  | Code                            |
|---|---------------------------|---|---------------------------------|
| 1 | Muli ndi zaka<br>zingati? | Zaka.....   |                                 |
| 2 | Ndinu                     | Wokwatira<br>Banja linatha<br>Amayi anamwalira<br>Wosakwatira         | 1<br>2<br>3<br>4                |
| 3 | Ntundu wanu ndi<br>chani? | Lomwe<br>Ngoni<br>Yao<br>Sena<br>Chewa<br>Tonga<br>China (fotokozani) | 1<br>2<br>3<br>4<br>5<br>6<br>7 |
| 4 | Ndinu a mpingo<br>wanji?  | CCAP<br>Roman Catholic<br>Anglican<br>Pentecostal                     | 1<br>2<br>3<br>4                |

|   |   |   |                       |
|---|---|---|-----------------------|
|   |   | China (fotokozani)  | 5                     |
| 5 | Maphunziro<br>munalekezela pati?                              | palibe<br>Pulayimale<br>Sekondale<br>Koleji   | 1<br>2<br>3<br>4      |
| 6 | Mumagwira<br>ntchito yanji?                                   | Bizinezi<br>yolembedwa<br>zina (fotokozani)   | 1<br>2<br>3           |
| 7 | Muli ndi ana<br>angati?                                       | Ana a zaka 1-2<br>Ana a zaka 3-5<br>Ana a zaka 6-10<br>Ana a zaka 11-14<br>Ana a zaka 15 kupitilira | 1<br>2<br>3<br>4<br>5 |
| 8 | Kodi mwanayu<br>analemera bwanji<br>pobadwa                   | 1000-1200g<br>1300-1500g<br>1600-1800g  | 1<br>2<br>3           |
| 9 | Kodi mwakhalamo<br>nthawi yayitali<br>bwanji<br>muchipatalamu | Sabata imodzi-awiri<br>Masabata atatu –anayi<br>Ena (fotokozani)                                    | 1<br>2<br>3           |

## Gawo 2: Asanatuluke mu chipatala

**zokhudza abambo kutenga nawo mbali popanga njira ya Kangaru**

## **Maganizo anu pa zopeleka chisamaliro mu njira ya kangaru ku chipatala**

(kufunsa zambiri)

Tandiuzeni kuti munazona bwanji zoika mwana pa njira ya kangaru

- Kodi maganizo anu ndi otani pa inuyo ngati munthu wa m'muna kuika mwana pa njira ya kangaroo
- Kodi munamva bwanji ndi thupi lanu poika mwanayu pa njira ya kangaru?
- Kodi mukapitiliza kuika mwanayu pa njira ya kangaru mukapita kunyumba, ndipo chifukwa chake ndi chani?

## **Zothandizira ndi zolepheletsa abambo kuika mwana pa njira ya kangaru**

### **kuchipatala**

Tandiuzeni zomwe zikhoza kuthandizira kuti abambo azitenganawo mbali poika mwana pa njira ya kangaru kuchipatala

- Kodi ogwira ntchito kuchipatalachi anakuthandizani bwanji posamalira mwana mu njira ya kangaru?
- Kodi zokhudzana ndi chipatalachi zakuthandizirani bwanji pamene inuyo mumasamalira mwana wanu mu njira ya kangaru?
- Kodi nanga ndi zinthu ziti zina zomwe zingathandizire kuti abambo atenge nawo mbali poika mwana pa njira ya kangaru?

Tandifotokozeleni za zinthu zomwe zinapangitsa kuti mukhale ndi mavuto popereka chisamaliro cha kangaru kwa mwana wanu

- Pa zokhudza chipatala

- Popeleka chisamaliro cha mwanayu pa njira ya kangaru
- Ubale ndi anthu a chipatala
- Ubale ndi akazi anu komanso anansi

### **Gawo 3: Kunyumba kapena ulendo wodzaonetsanso mwana ku chipatala**

#### **Maganizo anu pa zopeleka chisamaliro mu njira ya kangaru ku nyumba**

Tandiuzeni kuti munazionana bwanji zoika mwana pa njira ya kangaru kunyumba

(kufunsa zambiri)

- Kodi maganizo anu ndi otani pa inuyo ngati munthu wa mmuna kuika mwana pa njira ya kangaroo kunyumba?
- Kodi munamva bwanji ndi thupi lanu poika mwanayu pa njira ya kangaroo kunyumba?
- Kodi mukupitilizabe kuika mwanayu pa njira ya kangaru ndipo chifukwa chake ndi chani?

#### **Zothandizira ndi zolepheletsa abambo kuika mwana pa njira ya kangaru kunyumba**

Tandiuzeni zomwe zikhoza kuthandizira kuti abambo azitenganawo mbali poika mwana pa njira ya kangaru kuchipatala

- Kodi achibale ndi anthu ena amudzi, anakuthandizani bwanji posamalira mwana mu njira ya kangaru?
- Kodi zokhudzana ndi kunyumba kwanu zakuthandizirani bwanji pamene inuyo mumasamalira mwana wanu mu njira ya kangaru?

- Kodi nanga ndi zinthu ziti zina zomwe zingathandizire kuti abambo atenge nawo mbali poika mwana pa njira ya kangaru?

Tandifotokozeleni za zinthu zomwe zinapangitsa kuti mukhale ndi mavuto popereka chisamaliro cha kangaru kwa mwana wanu

- Pa zokhudza nyumba kapena khomo lanu
- Popeleka chisamaliro cha mwana pa njira ya kangaru
- Ubale ndi akazi anu komanso anansi

Kodi chikhalidwe cha mtundu wanu chimakambapo zotani pankhani ya abambo kutenga nawo mbali posamalira mwana wobadwa kumene?

## **Appendix C: Information letter to men who will provide Kangaroo Mother Care**

**Study Title:** Experiences of male partners participating in Kangaroo Mother Care within the hospital and home settings in Dedza District. **Investigators:** Yankho Katundu

(Kamuzu College of Nursing), Professor E. Chirwa (Kamuzu College of Nursing) and V. Manjanja (Kamuzu College of Nursing). **Contact details of study Principal**

**Investigator:** Yankho Katundu, Kamuzu College of Nursing, P.O Box 415, Blantyre.

Cell: 0999 424 740. Email: [katundu2016yankho@kcn.unima.mw](mailto:katundu2016yankho@kcn.unima.mw). **Study Sponsor:**

United States Agency International Development (USAID), World Learning Malawi Scholarship Programme, P.O Box 30733, Lilongwe.

You are being invited to take part in a research study on experiences of male partners participating in Kangaroo Mother Care within the hospital and home settings. Before you decide to participate in the study it is important for you to understand why the research is being done and what it will involve. Please ask if there is anything that is not clear or if you would like more information. Participation is voluntary.

### **What is the purpose of the study?**

The aim of this study is to promote male partners involvement towards providing KMC and also to identify facilitators and barriers to them in order to provide KMC. KMC is important in low birth weight babies because it helps to provide warmth and they gain weight easily improving survival. This is a method that has to be done continuously even at home after discharge until the baby reaches the required birth weight of 2500 grams. The mother needs support to do this from the male partner because it's tiring and

she also needs to rest, it is, therefore, important to implement this intervention and see how the male partners are managing to support their spouses. As such, the findings of this study will help to evaluate the areas that need to be addressed to promote and enhance male participation in KMC thereby reducing the neonatal mortality rate.

**Do I have to take part?**

You are free to take part or not or to withdraw at any time you feel like without giving reasons. Your refusal to take part in the study will not risk the type of care given to your baby. If you agree to take part you will be asked to sign a consent form. Information about you will be confidential and no one will identify who answered which question as no names will be written on the questionnaires. Code numbers will be used instead. The questionnaire and responses will be destroyed at the end of the study.

**If I take part what will happen to me?**

You will be asked some questions about the method of KMC. You will be required to respond to the questions and giving explanations where necessary. You have to answer the questions truthfully and to the best of your knowledge. The interviews will take about 30 to 45 minutes.

**What are the possible risks of taking part?**

There are no known risks associated with the study. The probable risks include the psychosocial risks in terms of a long time of attending to the interview and you may be uncomfortable with some of the questions on practice of KMC.

**What are the possible benefits of taking part?**

There are no immediate benefits to you. The findings of the study will assist in identifying ways of promoting male participation in KMC and help with the survival of the low birth weight baby.

**If something goes wrong, what will happen?**

Complaints concerning how you have been treated during the course of the study can be forwarded to Kamuzu College of Nursing.

**Contact for further information**

Should you require any further information regarding the study or your rights as a study participant you are free to contact me on 0999424740 and Professor E. Chirwa on 0991259543. You may also raise your concerns to the committee that is responsible for approving the research study and its procedure, the College of Medicine Research and Ethics Committee (COMREC), P/Bag 360, Chichiri, Blantyre 3, Telephone number 01871911

## **Appendix D: Consent form for male partners to provide Kangaroo Care**

**Study Title:** Experiences of male partners participating in Kangaroo Mother Care within the hospital and home settings in Dedza district. **Investigators:** Yankho Katundu

(Kamuzu College of Nursing), Professor E. Chirwa (Kamuzu College of Nursing) and V. Manjanja (Kamuzu College of Nursing). **Contact details of study Principal**

**Investigator:** Yankho Katundu, Kamuzu College of Nursing, P.O Box 415, Blantyre.

Cell: 0999 424 740. Email: [katundu2016yankho@kcn.unima.mw](mailto:katundu2016yankho@kcn.unima.mw). **Study Sponsor:**

United States Agency International Development (USAID), World Learning Malawi Scholarship Programme, P.O Box 30733, Lilongwe

I have read and (or have had another person read to me) the attached information sheet for this study and have understood the purpose of the study and the problems involved.

I agree to voluntarily participate in the study, be questioned and provide answers to the best of my knowledge. I understand that I am free to withdraw anytime without giving reasons and this will not risk the care given to my baby in any way.

I know that I do not have to suffer any injury or harm during the research process. The information that I will give to the researcher should not be used against me in future.

I understand that my information will be kept confidentially and will only be accessed by the researcher or those people directly concerned with this study. I understand that I will not benefit financially. I know how to contact the researcher if I need to.

Participants signature.....Date.....  
Participant's thumbprint (if illiterate).....Date .....

Signature of witness (if participant illiterate).....Date.....  
Researcher's signature.....Date.....

!

**THANK YOU FOR TAKING PART IN THIS STUDY**

## **Appendix E: letter of information to male partners (Chichewa version)**

### **Kalata yofotokoza zakafukufuku**

**Mutu wa kafukufuku:** kufufuza zomwe abambo otenga nawo mbali poika ana pa njira ya Kangaru akumana nazo ku chipatala ndi kunyumba m'boma la Dedza. **Opangitsa**

**kafukufuku:** Yankho Katundu (Kamuzu College of Nursing), Professor E. Chirwa (Kamuzu College of Nursing) ndi a V. Manjanja (Kamuzu College of Nursing). **Mwini**

**kafukufuku:** Yankho Katundu, Kamuzu College of Nursing, P.O Box 415, Blantyre.

Cell: 0999 424 740. Email: [katundu2016yankho@kcn.unima.mw](mailto:katundu2016yankho@kcn.unima.mw). **Opeleka thandizo**

**lopangira kafukufuku:** United States Agency International Development (USAID),

World Learning Malawi Scholarship Programme, P.O Box 30733, Lilongwe

Mulikupemphedwa kutenga nawo mbali pa kafukufuku wokhudza abambo kutenga nawo mbali popeleka chithandizo cha njira ya Kangaru kwa ana obadwa sikelo yosakwana ku chipatala chachikulu cha ku Dedza. Musanapange chiganizo chotenga nawo mbali mukuyenera kumvetsetsa cholinga chakafukufuku ameneyu. Chonde mukuloledwa kufunsa mafunso ngati muli nawo pazakafukufukuyu ndipo kutenga nawo mbali kwanu ndikosakamiza.

### **Cholinga cha kafukufukuyu ndi chani?**

Cholinga chake ndikupititsa patsogolo abambo kutenga nawo mbali popeleka chithandizo cha Kangaroo ku chipatala ndi kunyumba, komanso kupeza zomwe zingalimbikitse komanso kulepheletsa abambo kutenga nawo mbali. Njira ya Kangaru ndiyofunika kwa ana amene abadwa ndi sikelo yosakwana ma gram 2500. Imathandiza

kupereka kufunda kapena kutentha ku thupi lawo ndipo sikelo yawo imakwela msanga komanso amakula bwino. Njirayi imafunika kuti mwana akhale pa chifuwa pa amayi kapena abambo mopitiliza mpakana mwana adzakwane sikelo yoyenelera ya 2500 grams. Nthawi zambiri amapanga ndi amayi okha ndipo amafunikira kuwathandiza akatopa, ndichifukwa chake kuli koyenela kuti abambo adziwathandiza. Zotsatira zakafukufuku zidzathandiza kupeza njira zopititsa patsogolo kuti abambo atenge nawo mbali pa Kangaru ndikupulumutsa miyoyo ya ana obadwa ndi sikelo yosakwana mulingo oyenera.

### **Kodi nditenge nawo mbali?**

Ndinu oloedwa kutenga nawo mbali mosakukakamizani komanso mukhoza kusiyila pa njira nthawi yomwe mwafuna. Ngati mungakane kutenga nawo mbali sizikhudza chithandizo chomwe mwana wanu alandire ku chipatala kuno. Ngati muvomereze kutenga nawo mbali mufunsidwa kuti musainile chikalata chosonyeza kuti mwavomera. Maina sadzagwiritsidwa ntchito pamayankho omwe adzapelekedwe. Mayankho anu adzakhala achinsinsi ndipo mapepala amayankho omwe mudzafunsidwe adzaonongedwa kafukufuku akadzatha.

### **Chidzachitike ndi chani ndikatenga nawo mbali?**

Mudzafunsidwa mafunso pa nkhani ya njira ya Kangaru. Mudzapemphedwa kuyankha komanso kufotokoza pomwe padzayenere kutelo. Mukupemphedwa kuti muyankhe zoono ndi momwe mukudziwira. Nthawi yokufunsani mafunso ndi 30 minitsi kufikira 45 minitsi.

### **Ndizovuta ziti zomwe zingakhalepo potenga nawo mbali pa kafukufuku?**

Palibe zovuta zomwe zingachitike ndi kafukufukuyu. Komabe pakufunika kanthawi kuti muike mwana pa chifuwa komanso kuti mufunsidwe ndikuyankha mafunso.

**Ndizabwino ziti zomwe ndingazipeze potenga nawo mbali pa kafukufuku?**

Palibe zabwino zothandiza kwa inuyo potenga nawo mbali mukafukufukuyu, koma kuti zotsatila zidzathandizila kupeza njira zopititsa patsogolo abambo kutenga nawo mbali pa njira ya kangaroo zomwe zikhoza kuthandiza kupulumutsa miyoyo ya ana obadwa ndi sikelo yosakwana mulingo oyenelera.

**Ngati patapezeka vuto chidzachitike ndi chani?**

Ngati pangakhale zodandaulitsa ndi mmene kafukufukuyu wayendela, mukhoza kukadandaula ku sukulu ya ukachenjede ya anamwino ya Kamuzu koleji.

**Ngati pali zina zofuna kudziwa zokhudza kafukufuku**

Mukhoza kuimba foni kwa ine Yankho Katundu pa 0999424740 kapena a Mayi Chirwa pa 0991259543. . Mutha kupelekanso mafunso ndi madandaulo anu ku komiti yomwe imavomeleza kuti kafukufuku achitike ya College of Medicine Research and Ethics Committee (COMREC), P/Bag 360, Chichiri, Blantyre 3, ndipo nambala yawo ya telefoni ndi 01871911.

## **Appendix F: Consent form (Chichewa version)**

### **Chilolezo chotenga nawo mbali mu kafukufuku**

**Mutu wa kafukufuku:** kufufuza zomwe abambo otenga nawo mbali poika ana pa njira ya Kangaru kuchipatala akumana nazo ku chipatala ndi kunyumba m'boma la Dedza.

**Opangitsa kafukufuku:** Yankho Katundu (Kamuzu College of Nursing), Professor E. Chirwa (Kamuzu College of Nursing) ndi a V. Manjanja (Kamuzu College of Nursing).

**Mwini kafukufuku:** Yankho Katundu, Kamuzu College of Nursing, P.O Box 415, Blantyre. Cell: 0999424740. Email: [katundu2016yankho@kcn.unima.mw](mailto:katundu2016yankho@kcn.unima.mw). **Opeleka**

**thandizo lopangira kafukufuku:** United States Agency International Development (USAID), World Learning Malawi Scholarship Programme, P.O Box 30733, Lilongwe

Ndawerenga (kapena ena andiwerengera) nkhani yakutenga nawo mbali mukafukufuku ndipo ndamvetsetsa. Ndikuvomereza modzipeleka kutenga nawo mbali pofunsidwa mafunso ndikuyankha mmene ndikudziwira. Ndikhoza kusiya nthawi iliyonse ngakhale opanda chifukwa ndipo sizikhudza chithandizo chomwe mwana wanga alandire. Ndikudziwa kuti sipakhala zovuta zilizonse nthawi yakafukufuku. Ndamvetsetsa kuti sipakhala chopindula chilichonse kwa ine. Ndikudziwa momwe ndingapezera uthenga wina pazakafukufukuyu ngati patafunika kutelo

Sayini ya otenga mbali mukafukufuku.....Tsiku.....

Chidindo cha chala cha otenga mbali mukafukufuku (ngati saakutha kulemba).....

Tsiku.....

Sayini ya mboni (ngati otenga mbali mukafukufuku saakutha kulemba).....Tsiku.....

Sayini ya opangitsa kafukufuku.....Tsiku.....

## **ZIKOMO POTENGA NAWO MBALI MU KAFUKUFUKU**

**Appendix G: Study period time table**

| <b>Activity</b>                                   | <b>August 2016</b> | <b>September 2016</b> | <b>October 2016</b> | <b>January 2016</b> | <b>April 2017</b> | <b>May-July 2017</b> | <b>August 2017-August 2018</b> | <b>September-2018</b> |
|---|--------------------|-----------------------|---------------------|---------------------|-------------------|----------------------|--------------------------------|-----------------------|
| <b>Topic search and literature review</b>         |                    |                       |                     |                     |                   |                      |                                |                       |
| <b>Literature review and proposal development</b> |                    |                       |                     |                     |                   |                      |                                |                       |
| <b>Submission of proposal to supervisor</b>       |                    |                       |                     |                     |                   |                      |                                |                       |
| <b>Submission to RPC</b>                          |                    |                       |                     |                     |                   |                      |                                |                       |
| <b>Submission to COMREC</b>                       |                    |                       |                     |                     |                   |                      |                                |                       |
| <b>Data collection</b>                            |                    |                       |                     |                     |                   |                      |                                |                       |
| <b>Data analysis &amp; Report writing</b>         |                    |                       |                     |                     |                   |                      |                                |                       |
| <b>Submit Dissertation</b>                        |                    |                       |                     |                     |                   |                      |                                |                       |

## Appendix H: Budget and justification

| ITEM   | UNIT | QUANTITY | RATE        | AMOUNT             |
|--|------|----------|-------------|--------------------|
| <b>STATIONERY</b>                              |      |          |             |                    |
| Printing paper                                 | Ream | 3        | K3,000.00   | K9,000.00          |
| Large envelops                                 | No.  | 8        | K200.00     | K1600.00           |
| pencils  | No.  | 2        | K100.00     | K200.00            |
| Pens   | No.  | 6        | K100.00     | K600.00            |
| Staple machine                                 | No.  | 1        | K2,500.00   | K2,500.00          |
| <b>Subtotal</b>                                |      |          |             | <b>K13,900.00</b>  |
| <b>PRINTING &amp; PHOTOCOPYING SERVICES</b>    |      |          |             |                    |
| Printing Proposal & Dissertation               | Page | 600      | K50.00      | K30,000.00         |
| Photocopying of Questionnaires                 | Page | 160      | K20.00      | K3,200.00          |
| Binding of Proposal & Dissertation             | No.  | 10       | K600.00     | K6,000.00          |
| <b>Subtotal</b>                                |      |          |             | <b>K39,200.00</b>  |
| <b>ALLOWANCES AND TRANSPORT</b>                |      |          |             |                    |
| Trips to Dedza                                 | Trip | 20       | K5,000.00   | K100,000.00        |
| Payment for the approval of proposal to COMREC | No.  | 1        | K110,000.00 | K110,000.00        |
| <b>Sub total</b>                               |      |          |             | <b>K210,000.00</b> |
| <b>Total</b>                                   |      |          |             | <b>K263,100.00</b> |
| 10 % contingency of the proposed budget        |      |          |             | K26,310.00         |
| 10 % Research and administration fee           |      |          |             | K28,941.00         |
| <b>GRAND TOTAL</b>                             |      |          |             | <b>K318,351.00</b> |

## **Justification for budget**

### **Stationery**

Adequate stationery supplies were required for proposal printing, photocopying of questionnaire for data collection and the actual dissertation writing.

### **Transport and allowances**

The money was required for traveling expenses to Dedza to collect data, for relevant literature review and to get clearance.

The money for payment for approval was necessary because without it the proposal could not be approved and it changes according to rates of foreign currency which are not static.

## Appendix I: Approval letters to conduct the study

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### **KAMUZU COLLEGE OF NURSING**

ACTING PRINCIPAL  
Prof. E. Chirwa, Dip Nurs, MRM, B.Sc., MN, PhD

PO BOX 415, BLANTYRE, MALAWI  
TELEPHONE: 01 873 623  
FAX: 01 875 341  
TELEGRAM: NURSING  
EMAIL: [viceprincipal@kcn.unima.mw](mailto:viceprincipal@kcn.unima.mw)

28<sup>th</sup> March 2017

The Chairperson  
COMREC  
P/Bag 360  
Chichiri  
**BLANTYRE 3**

Dear Sir/Madam,

#### **SUBMISSION OF RESEARCH PROPOSAL FOR REVIEW FOR YANKHO KATUNDU**

I write in support of Yankho Katundu's submission of her research proposal "**Exploring The Feasibility of Implementing Kangaroo Care with Male Partners Within the Hospital and Home Settings in Dedza District**" in partial fulfilment for the award of a Masters degree in Midwifery.

The study findings may help in policy development, to incorporate Kangaroo Care when addressing issues of male involvement in maternal health, and also to improve the setting or environment where Kangaroo Care is being practiced in the hospital to allow men to be involved.

I, therefore, strongly support her submission.

Yours faithfully,

Belinda Gombachika, PhD  
**DEAN, POSTGRADUATE STUDIES**

TELEGRAM:  
TELEPHONE: 01223437  
FAX: 01223523



*In reply please quote NO DC/MALAWI*  
THE DISTRICT HEALTH OFFICER,  
DEDZA DISTRICT HOSPITAL,  
P.O. BOX 136,  
DEDZA,  
MALAWI.

COMMUNICATIONS TO BE ADDRESSED TO:  
THE DISTRICT HEALTH OFFICER

3<sup>rd</sup> April, 2017

Yankho Katundu  
Kamuzu College of Nursing  
P.O.Box 415  
**BLANTYRE**

Dear Madam

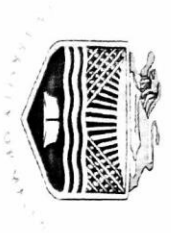
**RE : PERMISSION TO CARRY OUT A RESEARCH STUDY**

Reference is made to your request dated 29<sup>th</sup> March, 2017. I write to inform you that your request has been accepted.

You will be allowed to proceed with data collection upon production of a valid Research Ethics Committee Certificate of approval.

  
Dr. Solomon Jere  
**DISTRICT HEALTH OFFICER**





# CERTIFICATE OF ETHICS APPROVAL

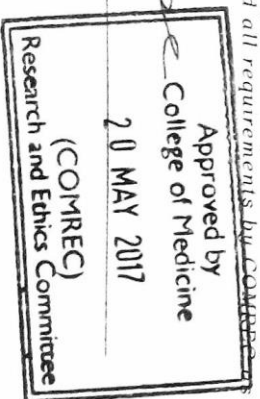
This is to certify that the College of Medicine Research and Ethics Committee (COMREC) has reviewed and approved a study entitled:

P.04/17/2165 - Exploring the feasibility of implementing Kangaroo Care with male partners within the hospital and home settings in Dedza District version 1 dated April 2017 by Yankho Katundu

On 20-May-17

*As you proceed with the implementation of your study, we would like you to adhere to international ethical guidelines, national guidelines and all requirements by COMREC indicated on the next page*

Dr. YB. Mlombe - Chairperson (COMREC)



20-May-17

Date