EXPERIENCES OF PARENTS ON KANGAROO MOTHER CARE IN THE NEONATAL CLINIC AT KENYATTA NATIONAL HOSPITAL

MARION NJOKI GAKUNA

H56/7453/2017

A THESIS PRESENTED IN PARTIAL FULFILLMENT FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE IN NURSING (PAEDIATRICS) OF THE UNIVERSITY OF NAIROBI.

2019

DECLARATION

I Marion Njoki Gakuna hereby declare that this research dissertation is my original work and has not been presented for award of degree in any university or forum.

Signature …… Date ……

Marion Njoki Gakuna

Reg No.: H56/7453/2017.

CERTIFICATE OF APPROVAL

This research dissertation has been submitted for the award of Masters of Science degree in Nursing (Paediatrics Nursing) at the University of Nairobi with the approval of the University supervisors.

Dorcas Maina – PhD, MScN (Critical care), BScN,

Lecturer, School of Nursing Sciences,

University of Nairobi.

Signature …… Date……

Dr. Abednego Ongeso – PhD (CHD-Reproductive Health), MScN (Maternal and Neonatal Health), BScN.

Lecturer, School of Nursing Sciences,

University of Nairobi.

Signature …… Date ……

DEDICATION

To my Lord Jesus Christ for this rare opportunity in my life.

To my children; Deborah Wangui and Samuel Gakuna for their patience and support throughout my post graduate programme.

To all parents who perform Kangaroo mother care to their premature and low birth weight infants.

I further dedicate this work to the parents who participated in this study.

ACKNOWLEDGEMENT

I wish to express my sincere gratitude to God almighty for this far he has brought me. God you are Ebenezer.

I sincerely thank my supervisors: Dorcas Maina and Dr. Abednego Ongeso for their invaluable input, guidance and support throughout this study notably; proposal development, data analysis and development of this submission. I am humbled by your expert advice, insight and unfailing patience.

My Classmates Mr. Samuel Mwaura and Mr. Henry Kilemi for moral support.

My appreciations goes to parents who participated in the study.

Kenyatta National Hospital for granting me a study leave to pursue the Master's degree.

The head of department pediatric department and ACN in charge Neonatal outpatient clinic for allowing me to conduct the study.

My Colleagues who offered useful suggestions and assistance.

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ERC	Ethics Review Committee
KNH	Kenyatta National hospital
LBW	Low Birth Weight
NBU	New Born Unit
NICU	Neonatal Intensive Care Unit
NOPC	Neonatal Outpatient Clinic
SSC	Skin to Skin Contact
UNICEF	United Nations Children Fund
UoN	University of Nairobi
VLBW	Very Low Birth Weight
W.H.O	World Health Organization

OPERATIONAL DEFINITIONS

Experiences: Refers to what transpired during the performance of Kangaroo mother care.

Infant: A baby born at a gestational age of between 24wks and 36 weeks and weighs less than 2000gms at birth.

Kangaroo mother care: It includes both continous and intermitent skin to skin contact of the parent and the infant.

Low birth weight: A birth weight of below 2000grams .

Perception: Refers to the opinion formed based on the experience of kangaroo mother care.

Support: This is help or assistance that the parent on Kangaroo mother care receives during the practice. Support by health care team (doctors, nurses), hospital management through provision of comfortable chairs and beds, relatives, friends, KMC champions and parents employer by providing them a paid leave.

Champions of Kangaroo care: Parents who have practiced Kangaroo care before, who act as a source of encouragement to current parents on KMC practice.

Preterm: A baby born before 37weeks of gestation.

Taking care: When the parent is involved in meeting their infant's needs.

New born unit: A place where intermittent type of Kangaroo mother care is practiced.

Kangaroo ward: It is where the continuous Kangaroo mother care is practiced.

Neonatal clinic: It is an outpatient clinic whereby infants from the New born unit and from Kangaroo ward are discharged through for follow-up after attaining a weight of 1700gms

ABSTRACT

Introduction: Kangaroo mother care is a practice used to care for premature infants and low birth weight babies. It has been endorsed by the World health organization as a cheap and reliable method of reducing neonatal mortality. It is widely practiced and has gained popularity in Kenya.

Objective:The study aimed at exploring experiences of parents on Kangaroo mother care in the neonatal clinic at the Kenyatta National Hospital.

Study methodology:This was a qualitative study. Seventeen participants were recruited from parents who had practiced kangaroo mother care. Sampling was purposive. Individual indepth interviews were conducted using an interview guide. The interviews were audiotaped and transcribed verbatim. Common themes were identified iteratively.

Results: Three major themes emerged from the analysis: Normalization of birth experience, need for committment and enabling the practice. The participants reported that they were afraid and worried about their babies survival before initiation into KMC. However during KMC, they became more confident as they participated in provision of care to their infants. Participants associated reduction of infections, provision of warmth and faster growth to improved infant survival with KMC. Most felt that KMC required a lot of commitment for its benefits to be realized and at times, this could cause interuptions in daily lives. Majority reported that they received enough support from their families and health team.

Conclusions: KMC has been positively perceived by parents especialy in relation to their involvement in care. However, KMC requires a lot of commitment for benefits to be realized. Having a conducive environment and support are essential for KMC practice.

Recommendations: Expectant mothers attending the antenatal clinic should receive Health messages to promote awareness on KMC practice. Institutional reccommendations included, provision of entertainment to mothers, review of meal time, one baby per incubator and deploy a doctor throughout in Kangaroo ward.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

The experience of birth is unique for each parent who nurses a term baby. However, not all parents get to enjoy this. Each year approximately twenty million low birth weight babies are born worldwide because of either a premature birth or growth restriction WHO | Care of the preterm and low-birth-weight newborn 2018). Globally, prematurity is the leading cause of death in children under the age of five years accounting for 60% to 80% of all deaths(Udani, Hinduja, Suman, & Kabra, 2014;Arivabene & Tyrrell, 2010) This is despite the scientific, technological and therapeutic development of neonatal intensive care unit.

The birth of a premature baby is a crisis to the parents, which challenges their expectations of a healthy term baby and denies them time to adequately prepare psychologically for the birth (Athanasopoulou & Fox, 2014). The parents suffer physically, emotionally and behaviorally and this may affect their perception of the parenting process and may at times be traumatic. (Chisenga, Chalanda, & Ngwale, 2015). The Parent's inability to cuddle their infant and dependence on others for the care of their infant, make them feel redundant and helpless (Gabriels, Brouwer, Maat, & Den, 2015). This may affect their parental role Parents may find the new born unit environment a barrier for attachment process with their infants. This is because the babies are nursed in incubators reducing the contact time with their parents.

Kangaroo mother care is a concept developed to allow the parents to be part of the team caring for their infant as well as stimulate bonding process between the pair (Yong-chuan chen, Mei-yu chang, & Pei-fan mu, 2015). It comprises of: early, prolonged and continuous skin to skin contact, exclusive breastfeeding, early discharge, proper follow-up and support for parents (Phaphali, 2017). It is a cheap alternative to providing thermal care and improving survival rate of LBW infants and has been endorsed by the WHO as the best option in hospitals with inadequate resources (World Health Organization. Reproductive Health and Research., 2003). Kangaroo

mother care is beneficial to both the parents and the infant. Kangaroo mother care also enhaces early hospital discharge and is the best mode of transportation during hospital transfers (Lemmen, Fristedt, & Lundqvist, 2013). It is also beneficial in reduction of hospitalisation costs.

1.2 Problem Statement.

The care of a premature infant requires high tech neonatal care with increased resources (Parmar et al., 2009). In addition, he birth of a premature baby also brings negative emotions, stemming from the disappointments of not having a full term baby. The parents may also suffer depression from the unexpected conclusion of their pregnancy, anxiety from separation, reduced interaction with their infant and fear regarding its survival. These negative emotions can disrupt the maternal –infant attachment process (Roller, 2005;Arivabene & Tyrrell, 2010;Athanasopoulou & Fox, 2014).Due to cultural roles and responsibilities, it is most often the mother of a premature infant who cares for the baby translating to added responsibility. Fathers may also feel excluded from the care of the newborn. Mothers who have gone through KMC have different experiences. A study in two NICUs found that mothers who provided KMC were less anxious, less depressed, felt stronger and competent in their maternal role, had a positive mood and viewed their infant less abnormal (Blomqvist, Nyqvist, 2011). In a phenomenological study among parents practicing KMC, Roller (2005) found that KMC facilitated bonding and enhanced maternal-infant acquaintance even in neonatal intensive care unit environment.s

In other cases, the parents have mixed feelings toward Kangaroo mother care.Initially, the mothers are positive and yearn to behold and be close to their infant by holding it (Vesel et. al., 2015). In addition, through touching their infant they transfer courage, strength, hope and comfort which stimulates their awareness of baby's signals and cues (Leonard & Mayers, 2008). Hence, the practice give them an opportunity to watch their baby grow as it had in utero, which probably give them satisfaction and fulfilment from the connection. However, they are also nervous and afraid

of hurting the baby. These feelings can be a barrier to the practice among others for example, lack of privacy, high tech equipment, and inadequate support.

While KMC is a humane, inexpensive, and straightforward approach, some mothers have negative experiences and they reported feeling lonely and isolated (Blomqvist, Nyqvist, Rubertsson, & Funkquist, 2017). The isolation is related to being confined in bed for long periods, not getting help in KMC. In many cases, the fathers are not allowed to help until after discharge from the hospital. In a study by Lemmen et al., (2013) conducted in Sweden found that some mothers were afraid of dropping their infant and this fear made it difficult for them to sleep while (Blomqvist, Rubertsson, Kylberg, Jöreskog, & Nyqvist, 2012) reported that mothers experienced boredom, backache, tiredness, and anxiety during the practice and felt their own needs like showering, eating and drinking were hinderance to the practice.

In Kenya, the KMC concept is gaining popularity, and many hospitals are implementing it. There is enough evidence that demonstrate the benefits of Kangaroo mother care in low birth weight infants (Mwendwa, Musoke, & Wamalwa, 2012). At the Kenyatta National Hospital, KMC has been practiced since 2002, and thousands of mothers have gone through the system. However, most studies carried out in Kenya have been on the physiological benefits of KMC which include better cognitive development, infection reduction, improved sleep, temperature, heart and respiratory rate, oxygenation and energy expenditure (Mwendwa et al., 2012). Other studies focus on the effects of KMC regarding the growth of the baby, the length of the hospital stay of the mother and baby and the success of breastfeeding or on knowledge, attitude & practice of health care providers on Kangaroo mother care (Jmwendwa, 2006). However, few studies have focused on the mothers experiences. In addition, no studies have sought the experiences of the fathers with KMC. The purpose of the study is to gain an understanding of parent's experiences providing KMC to their preterm infants.

1.3 Significance of the study

Neonatal mortality rate is greatly reduced by provision of Kangaroo mother care to the LBW and VLBW infant. They tend to gain weight quickly, length of hospital stay is shortened and continued breastfeeding is well documented in a number of studies. The experiences of parents who have implemented KMC is not very well known. The study findings will contribute to policy development and help health team to strategize management protocol on KMC practice.

1.4 Justification of the study

The components of Kangaroo Mother Care are skin-to-skin contact for 24 hours per day, exclusive breastfeeding and early discharge with regular follow-up visits to a healthcare facility. KMC is a nursing practice that is accepted worldwide and meets the newborn infant's important needs for warmth, stimulation, parental contact and love. In addition, the child needs parental love during health crisis in order to face the difficult time of growth. KMC is therefore, an important nursing practice that promotes attachment process between parents and their infants. Thus, it's vital to understand the parental experience when carrying out KMC. A few studies have focused on the parental experience of preterm infants who underwent KMC in the world and Africa but the author found none in Kenyan context. The lack of documented evidence about parent's experiences following kangaroo mother care practice, prompted the study. The study will help in the development of policies that includes the father's opinion in the care and probably the change of name from mother care to kangaroo care which will enable other persons to implement the practice without prejudice.

1.5 Research question

1. What is the experience of the parents who have implemented Kangaroo mother care to their preterm infant?

2. What is the perception of Kangaroo mother care outcome to parents who have implemented it?
3. What kind of support do parents receive from health care workers (doctors, nurses), KMC champions, spouses, friends, relatives, hospital management and their employers while providing Kangaroo mother care?

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Preterm infants' survival is a global concern. To have continuous progress, it's necessary to keenly ensure that every neonate has access and receives good quality care and life saving interventions (Mathias, et al., 2018). Kangaroo mother care has been shown to significantly reduce the risk of neonatal mortality in resource strained countries (Chan, et al., 2016). In this literature search will focus on the experiences of parents on kangaroo mother care, their perception about the KMC and support during the KMC practice. Though the method has gained popularity in Kenya, research studies have only focused on the effectiveness of the practice. The experiences of parents who have implemented KMC is not known in Kenyan context. Therefore, understanding the parents experience while providing Kangaroo mother care will help health team to strategize management protocol on KMC practice. In this chapter, the researcher presents the research strategies used to gather information on the central phenomenon. The rest of the chapter is dedicated to the literature review on the on the experiences and perceptions of parents on Kangaroo mother care. The review of the literature helps address gaps in literature and illustrate how the current research addresses these gaps. Further, the review provides an improved appreciation of the parent's perception of kangaroo mother care.

2.2 Search Strategy

The researcher used the following search engines: PubMed, Medline, Cochrane, and Scopus, CINAHL plus, Google scholar and Science direct. The inquiry was based on peer-reviewed journals, World Health Organization guidelines and hospital records. The Key words and phrases used for the search are: 'Kangaroo mother care', 'experiences', 'perceptions', 'attitude', 'feelings', 'emotions', 'skin to skin contact', 'support', 'barriers' and 'awareness'. The articles found from the use of key words were used as a reference point to locate additional relevant literature. In

addition, the researcher used the University of Nairobi library to access the thesis repository and the World health organization Hinari website. These two sources provided data on local studies, which may not have been published.

2.2.1 History of Kangaroo mother care

Kangaroo mother care is a technique designed for low birth weight and premature infants due to their inability to maintain stable thermoregulation, whereby the baby is in prolonged and continuous skin to skin contact with the parent or a substitute for provision of warmth (Dahlø, et al., 2018). Kangaroo mother care was introduced by Dr. Rey a neonatologist in Bogota, Columbia in 1978 to combat the problems of overcrowding, inadequacies of equipment like incubators, shortage of staff, and increased rates of cross infections (Athanasopoulou & Fox, 2014). It was described in scientific literature in mid 1980s and continued to develop under the leadership of Martinez and Navarrete until the creation of the Kangaroo foundation in 1994 (Blomqvist et al., 2012). In the world, the implementation of KMC is specific to multifaceted challenges in a country. For example, in developed countries easy accessibility of incubators complements KMC implementation while in developing countries policies to scale up KMC are being developed (Opara & Okorie, 2017). Kangaroo Mother Care practice was started in 2002 at Kenyatta Hospital (NBU-KNH records). At the beginning the parents provided intermittent KMC. However, in 2016 continuous KMC; where the mother stays with the baby throughout; was introduced (NBU-KNH records). KMC is recommended by the World Health Organization as a method of choice for providing warmth to a premature infant in the developing and developed countries (Kipchumba, 2015).

2.2.2 Kangaroo mother Care

Kangaroo mother care is an alternative method to incubator care for the low birth weight and premature infants. The method promotes infant-parent contact through skin to skin contact, and

allows the parents to take responsibility for the care (Cattaneo et al., 2018). The method was borrowed from marsupial care-giving whereby the infant is kept warm in the maternal pouch and close to the breasts for unlimited feeding (Blomqvist & Nyqvist, 2011). The baby is put in a Kangaroo position; which is the cornerstone of this practice whereby the infant is placed on skin to skin contact, between the parents or caregiver's breast in upright position, dressed only in a diaper and a hat, legs flexed, and head turned to the side, secured with a wrap and covered with linen under the parent's clothes (World Health Organization. Reproductive Health and Research., 2003). The parents therefore, act as incubators, source of food and stimulation for LBW infants in early hospital discharge of low birth weight infants (Chisenga et al., 2015).

In Kangaroo position, infants can be cared for either continuously; where by the parent and infant are in skin-to-skin contact day and night for at least 20 hours or more per day; or intermittent if the infant is placed in the skin-to-skin position for shorter periods of time for example one hour in between feeds (Mwendwa et al., 2012). In either case the benefits are many.

2.3 Benefits of Kangaroo mother care to the baby

Kangaroo mother care should be practiced in settings where equipment such as incubators are inadequate to reduce neonatal morbidity and mortality (WHO, 2018). To achieve the developmental goals on infant's survival, the benefits of Kangaroo mother care could be used as a motivation for implementation and promotion of KMC (Mary, 2018). Studies have shown that KMC is beneficial to the infant in terms of: mortality rates (reduces deaths resulting from cross infections, physiological (cardiopulmonary, thermoregulation stability), behavioral (improves breastfeeding duration and exclusivity, sleep) and domains (relieves pain during procedure, improved neurodevelopment, conserve energy, enhances adaptation to extra uterine life, faster growth, less absenteeism from school, hyperactivity, socio-deviant) (Nguah et al., 2011;Mwendwa et al., 2012;,Campbell-Yeo, et al., 2015;Charpak et al., 2017;Swarnkar & Vagha, 2016). Hence,

extending the benefits of KMC to all premature infants is very important in improving their survival.

2.4 Benefits to the parent

Kangaroo mother care is also beneficial to the parent whether practiced continuously or intermittently. Some of the benefits identified from studies are: improved bond between the pair, increased confidence, deep satisfaction, reduced stress, enhanced psychological healing, familiarize with infant cues, lactation and protection from direct contact with visitors ,fathers feel important and involved in care (Okorie & Opara, 2017;Kipchumba & Tjale, 2015;Brouwer, et al., 2015;Athanasopoulou & Fox, 2014). This could strengthen the pairs bond and enhance their attachment process.

2.5 Experiences of parents on Kangaroo mother care

Different parents have varied experiences while providing KMC. Mother may prefer to practice KMC because of the added benefits. In a study done in two intensive care units, Blomqvist et al., (2012)sought to understand the parent's capacity, willingness, and experiences of KMC. They found that parents desired to be close with their infant and participate in the infant care. Although the practice is uncomfortable and tiring, parents prefer KMC to incubator care as it gives them a chance to play their parental role. This study concludes that when KMC is initiated early, its duration tends to be longer. In a similar study, Noren et al., (2018) interviewed mothers who had practiced KMC and reported that KMC provided closeness to their infant and reduced separation from the infant. Inspite of this, parental contant was hindered if the infants were fed via expressed breast milk through tube feeding. In other cases, mothers desired to to stay close to their preterm infant, which can be achieved by providing KMC. KMC can be facilitated by providing a conducive environment to the pair and offering support especially during breast milk expression.

However, despite the benefits, there are also negative aspects of KMC. Mothers who provided KMC reported that KMC can be an energy draining experience (Anderzén-Carlsson, et al., 2014). Chisenga et al., (2015) also interviewed mother who had practsied KMC and found that they preferred KMC to incubator care. This was not always achieved due to lack of assistance with skin contact, cultural barriers, and stigma associated with premature birth. Parents preferred KMC to conventional incubator care according to a study conducted on 76 mothers and 74 fathers in Sweden because it facilitated attachment and ensured that the parents are actively involved in the care of the infant (Blomqvist et al., 2012). However, they also reported that KMC can be exhausting and uncomfortable. This is because while providing continuous KMC the parent is expected to be in bed for over 20 hours.

Kangaroo mother care is commonly practiced by mothers. However, fathers are also expected to participate in the care of their preterm babies. Kangaroo mother care gives an opportunity to get close to their baby and this facilitates attainment of parental role (Cattaneo et al., 2018). In addition, KMC allowed them to feel in control and felt that they are contributing something good for their infant although the care could be demanding and stressful. Some fathers have reported staying with the baby during the whole hospital stay while others stayed in the ward the whole day. Despite the uncalled for situation, they adapted to their predicament and spent as much time as possible with their infants(Blomqvist et al., 2012). Father's opportunity for KMC helped them attain parental role to cope with the unexpected situation. The physical environment and conflicting staff statements influenced their opportunity for and experiences of caring for their preterm infants.

Mothers providing KMC have also described it as positive experience. A systematic meta-analysis review concluded that KMC facilitated mother knowing their infants and allowed them to care for their babies (Mellis, 2016). This would not be the case if the baby was in the incubator where contact is limited (Vesel et al., 2015). A report of 10 systematic studies found that KMC was a

restoring experience (Athanasopoulou & Fox, 2014). However, it was also viewed as an energy draining experience because it requires commitment to long hours in bed. In addition to long hours, availability of time and acceptance to KMC has been cited as barriers to adoption of KMC. Boundy et al., (2016) found that lack of time, lack of social support, and poor family acceptance could influence the experience of KMC. KMC is also beneficial to the parent in achieving their parental roles. Suddell et al., (2015) reviewed parents' experiences of kangaroo care in the neonatal unit and found that those who had provided KMC had more parental confidence, reduced anxiety and stress associated with caring for a premature infant. This is beneficial because they bypass the need to familiarize themselves with the NBU environment including the noises and equipment, which could be a source of stress if the baby was nursed in an incubator. Further, KMC assist the parent to understand the care of the infant. Feeley, et al., (2016) found that parents who provided KMC were better able to navigate the demands of care for a premature infant by balancing parental readiness with infant needs. Furthermore, nurses play a crucial role in encouraging and facilitating KMC and can support parents and infants in neonatal unit by providing information and advice regarding KMC as early as possible.

In other cases, mothers reported that KMC was a negative experience for them. A retrospective study conducted on 23 mothers who had provided KMC, reported that some mothers perceived their infant care as exhausting. This was related to lack of information on practical application of the method, provision of KMC even at night leaving the mother no time to rest, and the fact that none of the mothers would opt to discontinue the practice (Blomqvist et al.,2011). It was concluded that mothers would have no issues with KMC so long as they received support. In other cases mother are reluctant to provide KMC because provision of KMC at night interfered with sleep and rest. A descriptive study in Sweden reported that sleeping with the baby was difficult because ethic

position is uncomfortable and led to insufficient sleep (Blomqvist, et al., 2013). This could contribute to negative experiences by some mothers.

A study to explore parents experiences in NICU found out that KMC increased parents motivation to be with their infants, minimized sense of helplessness and redundancy (Lemmen et al., 2013). These are essential components of becoming a parent. In addition, Dahlø et al., (2018) noted that mothers felt KMC was essential for normalization of birth experience and bonding between the pair especially within the first hours of birth. KMC enhances closeness of the mother & their infant which should be supported by the health team. In a related study, Yong-Chian et al., (2015) found that KMC improves family relationship, reduces maternal stress, depressed emotions, and restores parental role of the mothers. However, they also noted that it was an energy draining practice. This calls for support to maximize their experience while providing KMC. Similarly, Salimi, et al., (2014) found that KMC practice was beneficial because it allowed the mothers to interact with their newborn, giving them a feeling of physical- mental healthiness of neonate. It was concluded that KMC is an effective and safe method of caring for low birth weight infants. A study in South Africa found that KMC provided warmth and comfort to their infants which fastened their growth as evidenced by weight gain and in return it gave the parents a lot of satisfaction (Kipchumba, 2015). The practice of KMC should be emphasized and incorporated in all hospitals that offers preterm care.

2.6 Perception of Parents on KMC

The perception of practice like Kangaroo mother care plays a significant role in determining it implementation. Positive feelings will favor the method while, negative emotions will be a barrier to the practice. Amara et al., (2018) reported that skin to skin contact is important in the development of the baby. KMC was found to be preferred especially when the mothers understood its importance. Nuuyoma (2012) while exploring parental perception found that confidence,

improves competency, active involvement, reduced frustrations were the main themes. In addiiton reduced workload for the staff reduced morbidity, increased bonding and improved care.

Mary (2018) examined the perception of KMC among mothers in primary care facilities and found that very few mothers were aware of KMC, pessimistic, and 50% mothers were very reluctant with KMC. However, a good relationship between the health care team and KMC among mothers was significant. This shows there is need for health care team to raise awareness of KMC among mothers which could impact on their perceptions positively. In a study to examine the maternal and neonatal nurse perspectives on the value of KMC, 63% of the mothers felt that KMC should be practiced daily while 18% of the nurses shared this feeling. In addition, 90% of the mothers felt that they should be involved in the care of their preterm infant compared to 40% of nurses. (Hendricks-Muñoz et al., 2013). Nurses can therefore be seen as a barrier to KMC, making it important for health providers to identify educational platforms to improve KMC access in NICU. Abbasi- Shavazi, et al., (2019) also interviwed mothers to understand the perceived benefits and barriers of KMC and found that bonding between the mother and infant and improved confidence. However, sickness, inadequate information and fear of performing KMC were the reported barriers to KMC. This shows that offering adequate information on importance of KMC and mothers health status impact on KMC positively. In a similar study Nguah et al., (2011) found that only a small percentage of the mothers had information on KMC on recruitment but on discharge over 95% were willing to comtinue with the practice at home and were willing to recommend it to other mothers. In addition, during the first follow-up 99.5% were still practicing KMC and proportion did not change significantly. In a related study by Thiel et al., (2016) majority of the mothers felt that special chairs should be provided during KMC, while 85% felt additional music was necessary. A small percentage were cautious and wanted to understand the precautions before initiating KMC. .

2.7 Support provided during Kangaroo mother care practice

Creating an environment that offers support to the parents is essential for the provision of KMC. Support received from friends, family and community are a major determinant of kangaroo mother care practice. This support can help them enjoy the practice but in the absence of support, the experience can be energy draining (Anderzén-Carlsson, et al., 2014). Proper communication by the staff nurses is essential. This communication should be consistent before, during and after KMC. By encouraging the new parents, the nurses play a major role in promoting KMC. However, conflicting emotions may arise when the nurses do not have deeper knowledge and skills on KMC (Lemmen, et al., 2013). Good preparation by the nurses therefore is essential since it contributes to positive experience of KMC. This preparation would also promote the involvement of men in KMC. While parents got to know about KMC and care of the preterm after delivery of the infant, men were excluded in counseling due to societal defined gender roles.

The source of information on KMC is a determinant of its adoption. In a study by Lydon et al., (2018)the main source of information on KMC was health facilities. However, there was exchange of knowledge among women in informal networks. Furthermore, the facilitators of health information was facilitated by community leaders while the religious leaders acted as advocates and offered emotional support for families and preterm infants. Moreover, through health counselling, peer modelling and personal success in KMC, parents change their negative perception towards KMC and preterm infant. In exploration of the strategies for supporting maternal newborn bonding Phuma-Ngaiyaye & Kalembo, (2016) found that nurse-mother interaction that involves effective communication and psychosocial support is very important. The conveyance of clear information by nurses serves as a support method in enhancing maternal-newborn bonding. Ernestine Robertson & Crowley (2018) interviewed young mothers aged 15 to 19 years and found that while the participants received information on KMC, no information on

benefits and care of preterm infant was given. In addition, interaction with health providers in the ward was supportive and formal. However, their interaction with nurses was reduced because they were not involved in the care of the baby, a role relegated to the social worker. On discharge the support was still on the child and not the mother. This lack of support is one of the barrier to KMC as reported by (Seidman et al., 2015). Similar findings were reported by Soni et al., (2016) who found that the odds of receiving KMC reduced by 45% as compared to when there was presence of champions, while the rate of initiating KMC dropped by 38% and duration of skin to skin reduced by 1.47 hours.

2.8 Theoretical Framework

This study will be guided by model on self-care deficit theory by Dorothea Orem's. The theory was developed in 1971 to examine situations that required the presence of a nurse or provision of nursing care. Since then, the theory has been re-published many times. The major assumption in this theory is that people should be self –reliant and responsible for their care and others in their family needing care. Therefore, situations whereby an individual is not able to continuously care for him or herself due to health issues or inability to provide quality health care to the children by the parent or guardian amounts to self-care deficit (Smith, Marlaine, Parker, & Marilyn, 2015). Orem defines nursing as an art, a helping service and a technology whose mandate is to ensure that the patient or the family is able to meet self-care needs. Orem's views health as being able to take care of self fully and continuously and the environment is the physical, chemical and biological features including the family, culture and community (Smith et al., 2015).

The theory comprises three related parts: Theory of self-care; Theory of self-care deficit and the Theory of nursing systems.

In the theory of self-care – The theorists addresses the practice of activities that an individual initiates and perform on their own behalf in maintaining life, health and well-being which can be

affected by basic conditioning factors such as age, developmental state, health state, family system, resource adequacy and availability. It also addresses the reasons for performance of self-care which could be universal that is being able to carry out activities of daily living which are common to every individual, developmental or health deviation (Smith et al., 2015).

The nursing system theory outlines various methods which can be used in meeting patients need by either the nurse, the patient or both of them. She identified three modalities of nursing system to meet the patient's needs which are wholly compensatory, partly compensatory and supportive educative nursing system (Smith et al., 2015).

Application of the theory to the study.

Theory of self-care

The activities of daily living that an individual practices on her or his life to maintain life and well-being. Deviation in health care occurs in illness, injury or disease. Parents on Kangaroo mother care are capable of providing self-care if they are well. However, the pair should be considered because the mother has to take care of herself and also her premature infant**.** The parent will require assistance in taking care of her premature infant even though she/he is able to take care of herself. The parent will be shown how to provide the universal needs to her baby like top tailing, expressing breast milk, feeding the baby through the tube and changing diaper among other things.

Theory of self-care deficit

Nursing care is necessary when a client is limited or incapable of providing his/her own care effectively. Parents rely on the health team to provide them with assistance and information regarding Kangaroo mother care. They also need support physically, socially, emotionally and at discharge to be able to practice KMC with confidence. The nurse offer support to the parent by listening to their concerns and answering their questions correctly, she can also teach them on how to place their baby in kangaroo position, importance of kangaroo mother care, who can help

practice KMC, and provide an environment that is conducive for the practice. For example providing comfortable chair and a stool to elevate their legs which aids venous blood return to the heart, offer comfortable beds for the parents on continuous KMC and if they are not in a position to feed their infant, the nurse can do the feeding on her behalf.

The theory of nursing system

It describes ways which can be employed in meeting self-care needs of a client.

Wholly compensatory :When a mother is unable to visit her infant following a caesarean section or maternal complications following labor and delivery for example post-partum hemorrhage, her baby is taken care of by the nurses fully. The nurse will do everything for that infant from top tailing, feeding and diaper change among other things until the mother get well enough to visit her baby.

Partial compensatory: The moment the mother start visiting the baby and she is able to carry out some roles like touching the infant which is a tool of communication with their baby while the nurse carry out the major roles in the provision of care such as feeding, positioning, top tailing and ensuring that the baby is kept warm.

Supportive educative nursing system-: The mother is educated on how to express breast milk and feed her infant through the nasal gastric tube or cup feeding. She is informed about Kangaroo mother care, shown through demonstration how to place the infant in kangaroo position and how to remove the baby from kangaroo position. Therefore, application of this theory can help mothers gain full independence in caring for their preterm infants.

2.9 CONCEPTUAL MODEL OREM'S SELF CARE THEORY

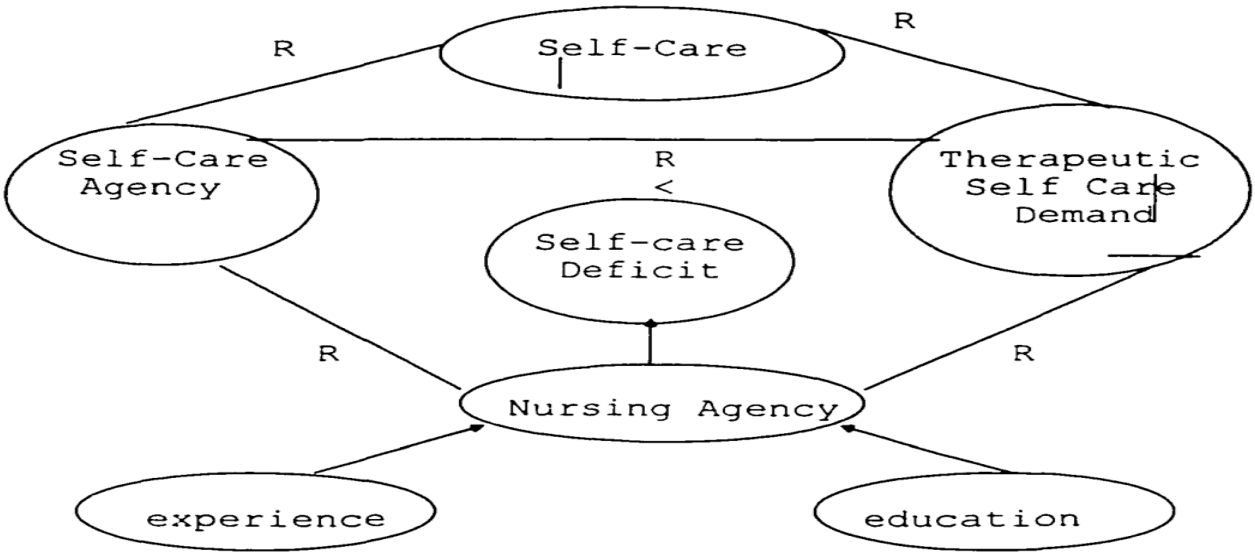

Figure 1: Conceptual Model by Dorothea Orem

Theory	Application
Self care theory Healthy parents are capable of providing self-care when on KMC.	However, need help in caring for her preterm baby. Such as toptailing, changing diaper,feeding the infant
Self care deficit theory Parent incapable or limited of providing care effectively to her infant.	Parents rely on the health team to provide them with assistance and information regarding KMC eg listening to their concerns and answering their questions correctly, teach them on kangaroo positioning, importance of KMC who can help practice KMC, and provide an environment that is conducive for the practice
Nursing systems theory How self-care needs of a client can be met by the nurse.	Wholly compensatory eg following caesarean section, the nurse meets all the activities of daily living for the for the infant. Partial compensatory eg mother is empowered to carry a few activities while the nurse does the rest eg the mother can be shown how to express breast milk and the nurse feed for her through the nasal gastric tube. Supportive educative nursing system eg the mother is shown how to feed the expressed breast milk through the tube, how to place infant in kangaroo position, why practice KMC

Table 1*:* Dorothea Orem's Self care theory application

CHAPTER THREE: METHODOLOGY

3.1 Introduction

The purpose of this research was to understand the experiences of parents who provided Kangaroo mother care. The focus was on the current literature, which showed a gap in studies on perspectives and experiences of parents who had provided Kangaroo mother care. This chapter outlines the research methodology that was used to explain this phenomenon. It includes the research design, participant's selection process, and the role of the researcher, data collection and data analysis processes. It also described the steps that the researcher took to ensure data trustworthiness and adherence to ethical procedures.

3.2 Study design

This was a qualitative study. A general qualitative approach was used to explore experiences of parents on Kangaroo mother care in the neonatal clinic at the Kenyatta National Hospital. This described and interpreted feelings of parents on Kangaroo mother care which the researcher was interested in, pointed out themes and recurrent patterns. It also allowed the researcher to collect data through observations and interviews (Polit & Beck, 2008).

3.3 Study area: Kenyatta National Teaching and Referral Hospital

The study was conducted in the neonatal clinic at the Kenyatta National Teaching and Referral Hospital (KNH).This is where neonates from new born unit and those from Kangaroo ward are discharged through for follow-up. KNH is a public hospital that serves the population of Nairobi and also receives referrals from the entire country and the East Africa region. It is the teaching hospital for the University of Nairobi. It is the largest referral hospital in East and Central Africa, located on hospital road, off Ngong road. The hospital has a bed capacity of 1800 and provides specialized health care. Neonatal outpatient clinic is run by senior pediatricians once a week (Wednesdays at 8am) and infants are followed for various periods depending on the baby's

condition. Its located on the ground floor, before getting into the tower block, borders surgery outpatient clinic to the right and pediatric emergency unit to the left and its opposite biochemistry laboratory. It is labeled “No. 23”.

3.4 Study population

The study population was all parents who were actively involved in providing Kangaroo mother care to their infants at Kenyatta National Hospital-NBU. From this population the researcher recruited seventeen participants.

This number was based on the guidelines for qualitative studies. The researcher can estimate the number of participants needed to reach saturation as suggested by (Natal, et al., 2007). This was the point at which no new or relevant information was offered by the participants. However, because of the iterative relationship between the sample and data analysis Dalbye, et al., (2011) recommend that recruitment should continue until there was saturation of themes. In fact, Mason et al., (2014) proposes that to ensure the right sample is achieved, multiple and complementary recruitment strategies should be applied. Therefore, based on the guidelines by Natal et al., (2007) as well as Charles, et al., (2015), seventeen participants were recruited for the study after reaching saturation.

Participant selection procedure: All the parents who were on and or had undergone Kangaroo mother care were identified using the KMC registers. This register has the names of all parents who were on or had practiced KMC.. Non probability purposive sampling method was used to select the participants who were recruited because they had abundant information about their experience of Kangaroo mother care. At the neonatal outpatientclinic,the researcher visited the clinic one Wednesday morning and introduced herself to the parents, informed them about the research and asked for volunteers in the study. Those who volunteered were explained to in details the purpose of the research, their rights and a written consent form was given to them to read it at

home and bring it during the next visit after signing . Parents were selected from different cultural background, different level of education and speaking at least one of the two main languages Kiswahili or English. All the mothers who were eligible for the study and available during the data collection were contacted to participate. Informed consent was obtained from the parent and thereafter the interview was commenced

3.5 Data collection procedures

Data was collected through observation and indepth interviews using a semi-structured interview schedule by the researcher. The questions in the interview schedule were based on review of literature and addressed the research questions. Interviews were conducted in one of the two main languages Kiswahili and English depending on the participant preference. Informed consent was obtained from the parent and thereafter the interview commenced. The interview was initiated with introductory questions to establish rapport and encourage the parent to feel comfortable. This was followed by open-ended questions and lastly probing questions to elicit more information.

The interview took place in the neonatal clinic at the quiet observation room free from external interference after the baby was seen by the pediatrician. Each interview lasted about 45minutes and was audio-recorded using a tape recorder with the participant's consent. The interviews were identified by the letter 'P' (Parent), followed by a number representing the chronological order in which interviews were conducted to ensure anonymity. The interviews were recorded, transcribed and translated for analysis. Later the participants were assigned pseudonyms that make their voice better heard.

The researcher kept a field journal and documented all observations, narrative accounts of conversation, thoughts and questions for later use to ensure confirmability and trustworthiness.

3.6 Inclusion and exclusion criteria

3.6.1 Inclusion criteria

1. Parents whose infants was born at a gestational age of between 24 to 36 weeks with a birth weight of less than 2000gms.
2. Parents who had practiced KMC in the new born unit or in the Kangaroo ward for more than one week prior to and within the duration of study.
3. A parent who had recent memory of the KMC experience and discontinued it two weeks before commencement of the study.
4. Parents whose infant were singleton and if multiple, practiced kangaroo on one baby at a time.
5. Fathers were included if they practiced kangaroo care at home since they are historically under-presented in research relating to their children.
6. Mothers or father who were able to speak Kiswahili or English.

3.6.2 Exclusion criteria.

Mothers whose babies were sick at the time of data collection because they might not be able to concentrate during the interview.

Parents who declined to consent for the interview.

3.7 Pre-test

A pre-test was conducted in the main NBU at the KNH using two participants. The researcher administered the interview guide and made amendments where applicable. This facilitated in assessing the questions clarity and skills of conducting the interview. The results of this pre- test was not used for analysis of the main study.

3.8 Ethical considerations

Ethical approval was sought from the University of Nairobi- Kenyatta National Hospital Ethics and Research Committee. The researcher also obtained permission from Kenyatta National

Hospital to conduct the study in the institution after ethical approval. Before data collection, the researcher obtained informed consent from the participants. The informed consent informed the participants on the following: That they were participating in a research, the purpose of research, the procedures to be used in data collection, the risks or benefits of participating, the right to opt out from the study and the procedures to be followed to ensure confidentiality.

Before each interview, the researcher obtained consent to record the interview. The participants were informed that involvement was voluntary and they could opt out from the study any time without any victimization. They were assured that the choice to participate or withdraw from the study would not affect the services they received from the health facility in any way.

3.9 Data storage, archival and quality assurance

All collected data was de-identified, sealed in envelopes and kept secure in locked file cabinet by the researcher. The consent forms were kept separate from digital recording and notes during interview, transcription, and analysis. It was only the researcher who had access to the data. After transcription, coding and analysis, the recording were stored by the researcher. These will be stored for an additional five years after which they will destroyed. The investigator had no conflict of interest. Each participant was allowed enough time to express him or herself, ensuring the validity of data. The interviews were transcribed verbatim to ensure the accuracy of data interpretation and ensured credibility. Data analysis was done iteratively. Since transferability was not a primary objective in qualitative research, the context of data was used to define the data, and contributed to the interpretation. Further, purposive sampling addressed that by maximizing the information to the context.

3.10 Data management

3.10.1 Data preparation

Once the interview was complete, verification of the information given was done by summarizing each point and doing member checks to ensure that the information was correctly summarized.

3.10.2 Data transcription

The recorded interviews was transcribed verbatim by the researcher including marks for hesitation, laughs, silence & other expressions. The researcher analyzed the transcribed interviews, by reading and re-reading the scripts to seek meaning in the data. Each line of the narrative was read and the text was divided into sections. Each section was labelled with a code word or phrase that conveyed the meaning of the section. The codes with a common meaning were grouped into sub themes, which was combined to form themes.

3.10.3 Data analysis

Data analysis was done iteratively beginning at data collection until the end of the study.

The researcher then read and re-read the data extensively to familiarize self with it and sought meaning in the data. Coding was done according to emerging theme. Each line of the narrative was read and if having direct link with objectives, was identified, highlighted and coded electronically to ensure that any alteration can be made without wasting any materials. Coding frame was developed depending on the codes identified which included: code label, code name, description and quote from the transcript to illustrate the description. Then, codes with a common meaning were grouped into sub themes, which were combined to form themes. Some quotes from the transcripts were used to illustrate the themes and sub-themes. Computer –assisted qualitative data analysis software (NVivo) was used to manage data by sorting, organizing, storing, retrieving, locating words, phrases and segments of data.

3.10.4 Trustworthiness

Trustworthiness was ensured using Lincoln and Guba criteria which comprises credibility, dependability, transferability and confirmability.

Credibility was achieved by audio recording all interviews, transcribing verbatim and ensuring that the experience was described accurately and faithfully. The researcher also ensured that each respondent listened to their own taped voice to confirm recording and kept a field diary to take notes of all participants' gestures and non- verbal communication that cannot be captured by the tape recorder. The researchers own interaction with the participant was recorded in the field diary. The records had dates and time of recording. Credibility was further ensured by the researcher collecting data personally to avoid distortions in the data from research assistant.

Transferability was achieved through interpreting accurately the description of parent's experiences while providing Kangaroo mother care so that future parents of preterm infants can identify with the experience. Generalization may be difficult without more research but will add to the understanding, knowledge and description of kangaroo practice for parents of a premature baby.

Dependability was achieved by use of many methods of data collection for example, detailed field notes, verbatim transcriptions and a record of analytical decision. Confirmability was ensured through the use of participants own words, keeping records of preconceived ideas in a research journal about the study to avoid bias during interview and analysis.

3.10.5 Limitations and de-limitations

By its nature qualitative study results are not generalizable. In addition, purposive sampling was used to provide understanding regarding experiences of parents during KMC practice and shed light on how to handle the parents during KMC sessions. These findings formed basis on which other studies can be replicated.

Participants may have had difficulties expressing their thoughts and feelings in English or Kiswahili since it was not their first language. This was addressed by allowing participants to express themselves in the language they were most comfortable with and also given adequate time to express themselves.

Parents who depended on staff for support may have been reluctantant to express negative feelings.The researcher who was an external person recruited the participants and assured them that there was no victimization from declining to participate in the study.

3.10.6 Data dissemination

The researcher reported key findings under each main theme or category using appropriate verbatim quotes to illustrate the findings. The results was shared with NBU/NOPC, Medical Surgical Nursing thematic team at nursing school University of Nairobi and KNH/UON ERC. Study report was availed to the University of Nairobi library for thesis repository and a manuscript was published in a peer reviewed journal.

CHAPTER FOUR:RESULTS

4.1 Introduction

This chapter focuses on the findings of this research on experiences of parents while providing kangaroo care in the Neonatal outpatient clinic at Kenyatta National Hospital. The research was guided by the following research questions-:

(1) What are the experiences of the parents who have implemented Kangaroo mother care to their preterm?

(2) What are the perceptions of Kangaroo mother care outcome to parents who have implemented it?

(3) What kind of support do parents receive from health care workers (doctors, nurses), KMC champions, spouses, friends, relatives, hospital management and their employers while providing Kangaroo mother care?

The data is summarized into tables, figures of frequencies, percentages and direct texts. The researcher started recruitment on 15/5/2019 after obtaining ethical approval, whereby the researcher screened the participants who had taken part in KMC for eligibility. The researcher then conducted face to face individual interviews with seventeen (17) participants, fifteen(15) mothers and two (2) father. All participants signed an informed consent and in accordance with the ethical review requirements. The researcher also provided a copy of the signed consent form to the participants. Each interview was recorded at the convenience of the participants, given a code based on the date of the interview and the chronological position of the participant. For example, interview 2 was coded P2 15th May 2019. Later the participants were assigned pseudonyms that made their voice better heard.

4.2 Demographics

The characteristics of the participants can be seen in table 1.

4.2.1. Parent socio-demographic characteristics

Parent's socio-demographic factors were assessed. 89.8% (n-15) were female, 64.7% (n-11) aged between 21 and 30 years, 41.2% (n-7) had college education level and 41.2% (n-7) were self-employed. Majority (76.5%) (n-13) were married. Most (64.7%) (n-11) of the mothers had hypertension medical history as shown in table 2.

Characteristic	Frequency
Gender	
Male	2 (11.2%)
Female	15 (89.8%)
Age group	
Less than 20 years	1(5.9%)
21 – 30 years	11(64.7%)
31 to 40 years	4 (23.5%)
More than 40 years	1(5.9%)
Education level	
Primary	2(11.8%)
Secondary	5 (29.4%)
College	7 (41.2%)
University	3(17.6%)
Occupation	
Employed	6 (35.3%)
Self employed	7 (41.2%)
Unemployed	4 (23.5%)
Marital status	
Single	4 (23.5%)
Married	13 (76.5%)
Medical and Obstetric history	
Hypertension	11(64.7%)
Cervical incompetence	1(5.9%)
Fetal distress	1 (5.9%)
Previous history of prematurity	1(5.9%)
Chest infections	1(5.9%)
Multiple gestation	2(11.8%)

Table 2:Parent's demographic data

4.2.2.Infant demographic data

The infants demographic data was evaluated. 70.6%(n-12) were female, 82.4%(n-14)were delivered through caesarian section. 70.6% (n-12) of the infants were born with birthweight between 1000 to 1500

grams, 64.7%(n-11) were born at a gestation of between 24wks and 32 wks. 66.7% (n-10) weighed between 1000 grams to 1500 grams at initiation of Kangaroo Mother Care. The weight at discharge was also assessed where 35.3% (n-12) were discharged with weight between 1700 grams and 1900 grams as presented in table 3.

Demographic variable	***Frequency (%)***
Gender	
Male	5(29.4 %)
Female	12 (70.6 %)
Mode of delivery	
Spontaneous Vagina Delivery	3(17.6%)
Caesarean Section	14 (82.4%)
Birth weight	
<1000gms	1(5.9 %)
1000 to 1500gms	12 (70.6 %)
1500 to 2000gms	4 (23.5%)
Gestation age at birth	
<24wks	Nil
24wks to 32wks	11(64.7%)
32wks to 36wks	6 (35.3%)
Weight at initiation of Kangaroo Mother care	
1000gms to 1500gms	10 (66.7%)
1501gms to 2000gms	5 (33.3%)
Weight at discharge	
1700gms to 1800gms	6 (35.3%)
1801gms to 1900gms	6(35.3%)
1901 to 2000gms	3(17.6%)
>2000gms	2(11.8%)

Table 3:Infant demographic characteristics

Data analysis

Coding process

In preparation for data analysis, the researcher wrote field notes during the interviews noting any non-verbal cues. This record was in one note book and served as the research log. Participant identification code was also developed including the month, position of the interview and the date. All interviews were recorded using a tape recorder and indicated the start and stoppage time in the research journal which enabled easy comparison of times with those in the recorder. The recorded interviews were saved in a password protected folder in the computer to avoid inadvertent loss.

Verbatim transcription was performed on the original recordings. The researcher then read the transcripts to familiarize herself with the data reffering to the research journal in the interpretation on non- speech utterances. Following transcription, notes of potential codes were made. The transcripts were then imported to Microsoft excel to allow for organization of the data and development of themes. Themes based on experience, perception and support were identified as shown in table 4.

Themes

Themes **Theme 1:Normalization of birth experience**
Subthemes:
Bonding effects
Participation in care
Psychological healing
Theme 2:Need for commitment
Subthemes:
Improved survival
Interruptions of daily lives.
Theme 3: Enabling the practice
Subthemes
Information
Peer support
Conducive environment

Table 4 Research Themes

Evidence of trustworthiness

During the process of data collection, the researcher informed each participant that they were to sign an informed consent and that participation was voluntary. The voluntariness ensured that the results remained credible since the participants were not coerced into participating. Before starting the interviews, the researcher established rapport with the participants to put them at ease. The participants were also interviewed in a private area where there were no interruptions. In addition, to ensure that the results were credible, the researcher conducted member checks and sought clarity in areas that were ambiguous.

Each participant was allowed adequate time to give a detailed account of their experiences.Any cultural and social relationships that could affect the research were identified. This was necessary to ensure transferability for those who wish to transfer the findings in their setting. The demographic characteristics of the participants have been provided making it easier for others to replicate the study.

The methods used in this study were accurately identified. This was aimed at enabling other researchers to examine the methods and judge the dependability of the results. In addition, the documentation is made in a logical manner. The field notes and audio recording were also available for documentation trail. The researcher has also ensured that the interpretation of the results are based purely on the data and has provided direct quotes from the participants without personal interpretation.

Results

The study sought to answer three research questions hereby labeled RQ 1, RQ 2 and RQ 3. These were the experiences of the parents who have implemented Kangaroo mother care to their preterm infants, perception of Kangaroo mother care outcome to parents who have implemented it and support parents receive from health team, KMC champions, spouses, friends, relatives, hospital management and their employers while providing Kangaroo mother care. After data analysis three themes emerged.

Research question 1 was answered by one theme: **Normalization of birth experience.** In this theme the participants described their experiences of KMC.

Research question 2 was answered by one theme: **Need for commitment.** This theme described participants perception of Kangaroo care outcome.

Research question 3 was answered by one theme: **Enabling the practice.** The theme described the kind of support received by parents during Kangaroo practice from health care workers, KMC champions, spouses, friends, relatives, hospital management and their employers.

4.3. Theme 1: Normalization of birth experience

Theme 1: Normalization of birth experience.

The first theme described how the participants described their experience with the Kangaroo mother care and its effect on the birth experience.

4.3.1 Sub theme 1: Bonding effects.

Most of participants explained that Kangaroo care enabled them to get close to their infant because it reduced separation between the pair and promoted connectivity between the parent and the infant. Some of the participants felt that Kangaroo mother care enabled them to get early discharge from the hospital. **Margaret** asserted that “bonding with your baby is very useful, I think I bonded well, because in NBU, you have a very short time with the baby, but here you are with them

throughout the day, then when you put them on kangaroo, you bond, they feel you and you feel them". In addition **Betty** mentioned that "bonding with the baby motivates me to continue doing kangaroo**".** While **Kellen** stated that "I see that kangaroo creates a bond between the mother and the baby". Similarly, **Melisa** stated that "I have seen its advantages which is bonding between the mother and the baby". And the same was shared with **Josephine** who stated that "I bonded with the baby**"** likewise **Joan** stated that "Kangaroo is very helpful, it connects the mother and baby whereby they bond completely**".**

4.3.2 Subtheme 2: Participation in care

Many of the participants indicated that Kangaroo mother care enables them to participate in the care of their infants. Participation in care allow mother commit to quality care. In this regard, **Shirleen** stated that "I gained confidence because I realized it is not hard, I can do it. I used to fear in the NBU, but stopped fearing in the Kangaroo ward". In addition, **Maureen** stated that "in an incubator, you just see the baby, there is nothing much, but during kangaroo, you remove and hold the baby". **Faith** stated that "that the baby was very small, I was fearing him by the way. I was not removing him from the incubator, because he was on treatment". J**oshua** identified that "I think being brought up in an African society, we always feared our fathers because I think they never had time to bond with us. So, I think, by doing that it also helps to create a child to father bond. Because the mother will always be with the child most of the time". Yet, there is a lot of challenge especially in the African societies. Whereby men try to shun away from it, and look at it like a women responsibility or the mother. But I think it's something even men need to adopt it, even more and give more support to the mother, because the mother alone cannot be able to do it 100% unless if there is that cooperation between the two**" . Hannah** also stressed that "It was very good because you are taking care of your baby, like me I used to go nowhere, only the bathroom and toilet and am back on kangaroo, even the swelling on my legs disappeared completely**"**.

4.3.3 Subtheme 3: Psychological healing

Majority of the participants found Kangaroo to be stress relieving and also reduced their anxiety because they could hold their baby's unlike when the babies were in the incubator. All the

participants received visitors every day. The visitors were either their spouses, relatives or friends which showed increase in family relations. Some participants practiced Kangaroo because they had no other option for the sake of their infants. **Maureen** highlighted that "you know the moment the doctor allows you to kangaroo, that shows there is improvement, the baby is stable, that's is good news. In addition, my husband used to come daily and I felt at least I was not alone in this, my mother, my mother in law they used to come". **Caroline** stressed that "Kangaroo helps me relax, makes me forget many things. I forget about other stresses, when I am relaxing with baby, I forget other things and I enjoy.**"** **Hannah** stated that "I felt good, at first I was in NBU, then I was given the baby to do kangaroo, I felt good than when I was seeing her in the incubator. That is where I had stress, even when we were called to go up to the kangaroo ward, I was the first to go up knowing that I will be with my baby every day, I was very happy.**"** Likewise, **Purity** stated that "I was liking it very much. It helped me to reduce the stress, I used to go, find other mothers doing kangaroo, we talk of how we will go home, how our baby's will be fine, and it was nice".

Many of the participants felt that Kangaroo mother care enabled them to experience deep satisfaction when caring for their infants. **Caroline** stated that**,** "It was of benefit to me, because I was able to relax, the way we move from the ward to nursery we don't relax. So, kangaroo was helping people to relax." **Joshua** affirmed that, "it's a plus for me, because this is our first time were are coming back and we were told if the baby is not showing signs of growth, then the baby will be re-admitted and that also has impacted me positively because, re-admitting the child would mean extra costs on medical and now this one, I only pay for check-up and I think the baby being readmitted, on the basis of weight, then I think, it's something which make me feel bad because, I think we can be able to do more than that and I think that embracing kangaroo, has been a good thing, so, it has impacted me in a positive way**".** Moreover, **Maureen** stated that "I used to smile during kangaroo, feel good, couldn't belief I am carrying my baby". Similarly, **Purity** shared the same sentiment. She stated that "I was very happy, in fact I used to go 10 minutes before time

The other mothers used to tell me kangaroo is good, during weighing day you find the babies who were less kilos than mine, has overtaken mine**.** Not only that, I cannot say there is something that I hate, because I just love kangaroo very much. If it was to be done until the baby walks, I could do it, because it's enjoyable to carry the baby kangaroo."

4.4 Theme 2: Need for commitment

All the participants pointed out that for one to reap the benefits of Kangaroo, commitment is required. There is a lot of sacrifice to be made even if it means giving up a job, closing down the business, bearing with long periods of sitting in one position for long and adjusting daily routines**.**

4.4.1 Subtheme 1: Improved survival

Many of the participants felt that by practicing Kangaroo mother care, cross infections were reduced because the mother acted as an incubator to her own baby. The baby received warmth from the parent and growth of the baby in terms of weight gain was realized thus, leading to improved survival. **Abigail** stated that "I found that kangaroo helps the baby grow faster, get mothers warmth, some diseases like blocked airway and common cold clears with kangaroo". Similarly, **Shirleen** stated that "Increase in weight and faster growth made me not to stop practicing kangaroo". **Betty** stated that "Kangaroo helps protects the baby from getting infections because you have your baby throughout, because the baby does not mix with the other baby's, you sleep on your own bed**".** While **Josephine** stated that "Practicing kangaroo in the hospital was good because it had benefits like provision of warmth, gaining weight and the risk of getting infections was reduced".

Purity highlighted that "It is not tiring, in fact when it's cold, and you carry your baby kangaroo you feel warm, the baby will also be warm.". Moreover, **Joan** affirmed that "It gives the baby your warmth which is good for the baby, it makes the baby to add weight and it bring closeness between the mother and baby". Not counting, **Maureen** stated "Bonding will always be first and warmth".

Deborah stated that "It gives the baby your warmth which is good for the baby, it makes the baby to add weight and it bring closeness between the mother and baby". Likewise, **Faith** as well stated that "I tell you, kangaroo is very good, when you put the baby on the chest, he gets your warmth and the baby grows very fast". More than that, **Mellissa** stated that "I would say kangaroo is a method of taking care of premature babies, it provide the baby with warmth, and so the baby grow faster".

Deborah stated that "The fact that the baby was adding weight every time really encouraged me to continue kangaroo." She further stressed that, "Kangaroo has really changed my perspective about preterm babies because the baby adds weight very fast, you can wake in the morning and find the baby has added 80gms, 50gms which is like a miracle". **Maureen** affirmed that "If you are serious, the baby adds a lot of weight. For example, there is a day she added 600gms, so I was like, the baby had never added such while in the hospital". Besides that, **Faith** highlighted that "I was told the benefits of kangaroo such as the baby will add weight so that I can go home. He will grow faster because of my warmth and will be big".

4.4.2 Subtheme 2: Interruptions of daily lives

Most of the participants asserted that they lost their income as a result of their commitment to Kangaroo mother care. **Hannah** stated that "in the company where I work, when you report in the morning is up to evening, I realized my baby will suffer. I decided to temporally stop going to work until my baby breastfeed for 6 months." In addition, **Mellissa** stated that "It has affected me in away because I used to sell up to 10pm. nowadays I report at 9am, at lunch time I have to go feed her and kangaroo a bit. The same case with evening at 4pm. You can see". While **Margaret** stated that "It has not, because when I quit the job, I was only doing it part time, so most of the times I was at home, so now I have something to do, it has become my full time job for me**".**

Josephine highlighted that "Kangaroo has not affected my day to day life because I was doing nothing. I am waiting for the schools to open, I go back**".**

Most of the respondents asserted that Kangaroo care was tiresome. **Abigail** stated that**"** you know there is no resting during kangaroo care, you feed after every 3hours, and in between you came for kangaroo". Likewise, **Shirleen** stated that" Kangaroo was tiring but I had to do it for the sake of the baby. Sitting throughout, in one position and facing up was tiresome. But I got used because the mothers I found in the ward told me that I will get used". Not only that, **Joan** stated "Sitting for long periods during kangaroo affected my daily life, because you are with the baby throughout, and I was used to moving around, but I found it ok. When I was discharged home, since we were told to limit visitors, I did not go home for a whole month, went to hide at my sister's place". Also, I used to feel tired at night, especially at 12midnight and 3am, whereby you feel very sleepy and you have to feed the baby. During the day it was nice carrying the baby kangaroo because the baby is not heavy". Furthermore, **Joshua** in addition stated that, "Yah! Sincerely speaking, there is a lot of tiredness that comes in because, sometimes for my case, I was not able to be given the paternity leave. To be able to spend time with my family. So, that meant my working routine, still stays the same, and there is a lot of physical that is involved. So, definitely by the time I get home am tired. I just have to push myself to go an extra mile so that I can be able to assist the family**".** Not only that, "I feel aah…a lot of responsibilities. It's not that good, but it comes with a lot of pressure, that is one, because you tend to think more of the future. And the future comes with a lot of things, education, better shelter, and clothing and health care is one of them. They are the prime things that you look into, and aah…it just comes with a lot of responsibilities. There is a lot of cost at the same time because when you start thinking about shelter, food, clothing, medical, it involves money. It makes me give the best in what am doing, my occupation and at my place of work**."**

4.5 Theme 3: Enabling the practice

In improving the quality of Kangaroo care, information, peer support and conducive environment were identified as major factors in enabling the practice of kangaroo care as highlighted by participants.

4.5.1. Subtheme 1: Information.

Information given to the parents before and during kangaroo practice played a major role in the acceptance and subsequent practice of kangaroo. All the participants were given information on the importance of Kangaroo mother care before commencing the practice. I found out that some participants were Mis-advising the others on Kangaroo care. **Shirleen** stated that "I was informed that kangaroo makes the baby to grow, create a strong bond and increase milk production. My aim was the baby to grow because the weight was low". **Deborah** stated that "I was told to continue with breastfeeding and cup feeding. I continue with kangaroo, cleanliness, restrict visitors for the time being- until the baby receive BCG immunization. To start family planning, I was told if I mess, I will get another preterm baby".

Joan further stated that, "I was told that the babies are supposed to go home with 2kgs but because of the high number of patient, they were 150 and were sharing five in an incubator, 1750gms is good weight for discharge, you cover the baby warmly, restrict visitors because the immunity is low. I was also given supplements: multivitamin, folic and calcium". Similar sentiments were shared by **Caroline** who stated that "I was told the baby has added weight, I will go home. They also told me to continue breastfeeding, not to expose the baby to many visitors, because the baby is very sensitive". Not counting, **Purity** stated that "I was told to cover the baby, not to let the baby experience cold. The second this I was told, is to restrict visitors, the third thing is to continue doing kangaroo, and not to miss the clinics for the baby.**" Josephine** stated that "the person who talked to me first motivated me. Even if I hear people talk ill about kangaroo, I will still stand. I didn't want to talk to them. When you go to kangaroo, no one will be allowed to visit you, it is

tiring, they were telling me if you want to go, go there and you will come and tell us. Also, I was told to take care of this baby to cover her well and to practice kangaroo often".

4.5.2. Subtheme 2: Peer support.

The analysis determined that all the participants received support from nurses, doctors, other mothers, pastors, relatives and friends. None of the participant failed to receive a visitor during their hospital stay. Even after discharge from the hospital the clients continued to receive support or support each other as a couple where the significant others were far. Majority of participants felt that the support they received was enough while the others had some complains. The participants also identified areas that the hospital can improve to maximize their hospital stay. **Maureen** stated that "It was good that we even exchanged numbers we tell each other the progress of the baby's. The experience was good, we used to encourage one another. Not only that, "I think so far so good, you know I had not even heard about it, so I cannot even compare with any other place. I think you gave me the best".

Shirleen also highlighted that, " my husband used to visit me every day. Besides that, "I feel nurses supported me well." **Faith** stated that "There is a time I felt very bad, the baby lost weight, I called my husband and told him, I am putting a lot of effort on kangaroo for the baby to grow faster, you just come and stay with your baby and I, go to work. He told me to have faith in God, the baby will grow. My pastor came and told me to continue with kangaroo and follow instructions given and the baby will go home". Likewise, **Caroline** stated that "The nurses supported the way I would have liked. They used to help us, answer our questions. It was good". "I was helped by nurses, doctors and kangaroo nurse. She used to encourage us to do kangaroo, ask her questions and she could answer us. The other mothers were very helpful. We used to encourage each other, sometimes using praises at 3am, we feel encouraged. Sometimes, we talk, we encourage each other". In addition, **Hannah** stated that "Nurses were very supportive, there is a time my baby

added only 5gms and I asked God why? Sister told me to be thankful for she has added, if she had lost that could have been very bad**".**

4.5.3. Subtheme 3: Conducive environment.

The participants felt that a conducive environment promoted the practice of KMC. Provision of clean space, bed & bed linen, chairs, stool, regulating the room temperatures and being there to answer their concerns enabled the participants to feel the urge to start and continue with Kangaroo practice. The participants also identified the challenges and areas that the hospital can improve to maximize their hospital stay. **Faith** stated that, "the kangaroo ward is good by the way, if the mothers knew. Especially those who has blood pressure, whose legs are swollen, when you stay in there, the swelling disappears completely. You should continue offering kangaroo services. Don't kill it". Moreover, **Joan** stated that "I found the kangaroo ward to be clean, warm and beautiful. The beds were comfortable, you could manipulate it to move up or flat, no sharing of bed. More than that "I would like many kangaroo wards to be opened to help mothers. You know before we did not know about it". Other than that, "The only problem was the sink, which was blocked and could not unblock even after pouring hot water". Furthermore, **Deborah** stated that "I did not like the distance between the ward and the NBU. For example I was in ward GFB, walking all the way to NBU was very tiring, my legs were swollen therefore, walking was a problem**".** Thus, "I think the distance from the ward to the NBU should be reduced, at least they put the nursery and the ward to be near each other**".**

Furthermore, **Hannah** stated that "I became used to doing kangaroo and also the room was hot, wearing clothes were a problem. I used to use a lesso most of the time, I could cover myself only when someone get a visitor**".** In other respect, **Josephine** stated that "When doctors are passing you just feel embarrassed even breastfeeding. You know they are a lot of students and it's just very crowded and they are just staring and they aren't even concentrating. Even you feel uncomfortable even when doing what you are used to**".** Other than that "nurses In nursery some

don’t look even after the children maybe she has uncovered herself, you will come and find her shaking and the nurse is just sited at the desk but other nurses were there looking at the babies, some nurses were active and others weren’t”.

Similarly, **Deborah** stated that “The beds were comfortable, although the temperatures were very high for me. We were told is high because of the baby’s. I had to stay because it’s the baby who took me there. The cleanliness was good, not unless the mothers come with their own or naturally dirty”. Apart from that, “I think the distance from the ward to the NBU should be reduced, at least they put the nursery and the ward to be near each other**”.**

In the same way, **Maureen** stated that “The one at 2nd floor, how do you call it, the 18hourskangaroo. I liked it more, coz you cannot compare when you are in this other wards, that you have to wake up at that 3am, sometimes when you are a lone it kind of scaring that 3, mid night so when you are up there, it was more comfortable,; because there is no movement. The baby’s linen were provided, cups for feeding were brought in time. The place was good”**.** While **Caroline** stated that “Space was the only problem, but all the other help we needed, we got”. Moreover, **David** stated that “The NBU and kangaroo ward were ok although in the NBU, the babies were very many. There is a time, they we put 3 in an incubator and even the space was small, but it was ok. Kangaroo ward was also good, you would find every mother has her own space, like her own bed, where she can do kangaroo**”.** Besides that, “I would say, you add space in the kangaroo ward, so that so many mothers can come, to reduce the crowd in the nursery**”.** While **Margaret** stated that “The rooms are clean, beds are clean, they are very comfortable, and the ward is nice, well maintained**”.**

4.6. Areas of improvement as suggested by participants

Respondents had diverse issues that they sought to be considered in improving their wellbeing and that of their children. **Faith** asserted that, “ I have a complain, You are supposed to take a doctor

there (in KC), like the way it is in NBU, there is always a doctor day and night, because the baby's get sick especially at night and there is only one nurse. That nurse struggles to a point of calling other nurses in the next room for help. You need to take another doctor there so that the baby are taken care off well." In improving support, **Caroline** highlighted that, "I don't know whether it can be possible. If we were just next to the baby's. I think that could be better. The distance from the ward to NBU was finishing us. There those who were sleeping in 3rd floor, others on the 1 floor. They used to tell us we wait, for them to run to, you could see they have problems moving up and down." The suggestions that were being considered focused on improving the wellbeing of the babies. **Deborah** highlighted the need to diversify the diet since it was only comprised of beans and ugali. She highlighted, " I think the one thing that would have improved my stay is improving on diet, you find that we had operation and thus advised to eat less solid foods." Some of the nurses were also making the stay of mothers difficult in the hospital. **Joshua,** also stated that," people have got different ailments sometimes, it might be skin and you are sharing a bed with this person. So, something can happen in between, then the other gap I identified was on the nutrition bit, or food area. I think can do better. There was time, there was a lot of routine ugali and beans most of the times and remember this are new mothers, some of them a day or two and some of them has gone through C/S, so they need some soft food. And then, they can do more in terms of fruits and…..because we had to do a lot in terms of food coming from home. And I just think something can be done. But, I don't mean that they are doing a bad job, just try to work within their limit."

CHAPTER FIVE: DISCUSSION

5.1 Introduction

This chapter evaluated the experiences of the parents who have implemented Kangaroo mother care in the Neonatal outpatient clinic at Kenyatta National Hospital. It includes a discussion of the results and concludes with recommendations for future research, and areas of improvement for Kenyatta National Hospital. The major themes that were identified in the analysis include: Normalizaton of birth experience, need for commitment and enabling the practice

5.2 Demographic characteristics of the participants

The parents age is an important factor in the determination of the gestation at which a baby is born. Findings from this study determined that majority of the participants were aged between 21 and 30 years and had attained college level education. The findings are slightly different from the study conducted in Malawi which presented that the highest number of participants were in the age group of 15-25 years and had only attended primary education only (Chisenga et al., 2015). The existing difference could be explained with free primary education and 100% transition efforts to secondary school which the government has highly emphasized. Another reason is that the study was conducted in urban area which is associated with harsh economy characterized by fast life for self employed and unemployed who formed majority of the participants. This could have caused stress which led to hypertension resulting in premature birth.

Although in this study the position of carrying the baby was at the back, the participants did not feel that their culture was undermined by positioning the infant in Kangaroo naked and between the breasts. This could be as a result of the clientele that KNH deals with who are mostly urbanites who are not bound or do not know their culture very well. These findings are in contrast to the findings in the study in Uganda which showed that uptake of health behaviors is determined by sensitization, knowledge and choices which depend on cultural, social and economic factors(Leonard & Mayers, 2008). The weight at initiation of Kangaroo in this study ranged

between 900-1800grams with an average of 1135 grams. This could be as a result of practicing KMC on stable babies out of NICU. Which is lower than that of a study done in India whose neonates weighed 1670+/-360gms neonates from NICU (Nirmala, Rekha, & Washington, 2006). In addition all the neonates were on breast milk which is comparable to my results. This could be due to impact of health education on exclusive breastfeeding the baby for 6months.

5.3 Experiences of the parents who have implemented Kangaroo mother care to their preterm infants.

The experience of birth is unique for each parent who nurses a preterm baby. Different parents have different experiences while providing KMC. This research question was answered using the theme Normalization of birth experience which was assessed based on participants bonding effects with their infants, participation in care and psychological healing during Kangaroo care practice.

In this study majority of the participants explained that Kangaroo mother care enabled them to get closer to their infant, it reduced separation between the pair and there was a feeling of connectivity between the parent and the infant which they felt enhanced their attachment. This could be due to parents being with their babies throughout. The findings are similar to those of a study in Sweden which showed that parents like to be near their infants regardless of the cause for separation. For example nursing an infant in an incubator is a form of involuntary separation from the baby (Blomqvist & Nyqvist, 2011). Similar findings were also obtained in a study by Yong-Chuan et al., (2015) which showed that Kangaroo care was a concept initiated to enable the parents to play a part in caring for their infant and stimulate bonding process between the pair. Noren et al. (2018) also determined that Kangaroo care provided closeness and reduced separation between the pair.

Moreover,Kymre and Bondas (2013) emphasized that KMC concept enhances infant- parental bonding and attachment and transforms the crisis of having a premature infant into a more gratifying experience for the whole family. Regarding participation in care, majority of the

participants indicated that Kangaroo mother care enabled them to participate in the care of their infants whereby they gained confidence on how to handle their baby which initially they feared to touch. However, few participants reported disappointment at some point when they couldn't practice KMC due to inconveniences brought about by the ward routines. The findings are consistent with a study conducted in Sweden which showed that Kangaroo mother care facilitated attachment and ensured that the parents are actively involved in the care of the infant. The results of this study showed that parents were able to learn cues of their infants which enabled them to attend to their needs promptly. For example behavior of the child when wet, hungry and sick. This is because the parent was with the infant throughout as compared with incubator care where the mother sees the baby after 3hours. The findings are comparable with those of Feley et al., (2016) where parents who provided KMC were better able to navigate the demands of care for a premature infant by balancing parental readiness with infant needs. In addition, the findings are in line with those of a study in South Africa that concluded that KMC improves parents ability to recognize their baby's signals and cues (Leonard & Mayers, 2008). Furthermore, parental inability to cuddle their infant and dependending on others for the care of their infant, make them feel redundant and helpless affecting their parental role (Gabriels et al., 2015). This could be as a result of baby's condition which demands incubator care for stabilization before a parent is allowed to practice Kangaroo care.

In this study, more than half of the participants found Kangaroo to be stress relieving and also reduced their anxiety because they could hold their baby's unlike when the babies were in the incubator. This can be attributed to the infant showing signs of improvement or stability which enabled the parents to get permitted to practice Kangaroo care. Further, none of them failed to receive a visitor every day for the duration of their hospital stay. The visitors were either their spouses, relatives or friends. This could indicate increase in family relations that play a major role in psychological healing. This is comparable with findings of Athanasopoulou & Fox (2014)who

found that KMC was a restoring experience. Suddel e al., (2015) also reported that mothers who had provided KMC had more parental confidence, reduced anxiety and stress associated with caring for a premature infant. Moreover, the feelings of tranquility and calmness were expressed further, to the feelings of excitement generated by the weight gain.

Majority of the participants felt that Kangaroo mother care enabled them to experience deep satisfaction when caring for their infants. They were able to relax, felt happy to watch their infants grow and they could have a nap. This could be as a result of their infant being out of danger which had necessitated incubator care. The findings are similar to those of Salimi et al., 2014) who found that KMC practice was beneficial because it allowed the mothers to interact with their newborn, giving them a feeling of physical- mental healthiness of neonate. These findings are also consistent with those of a qualitative study carried out in Namibia, which found that KMC benefits to the parent were: confidence, improved competency, active involvement in care and reduced frustrations practice (Nuuyoma, 2012). Lemmen et al., (2013) also found out that KMC increased parents motivation to be with their infants, minimized sense of helplessness and redundancy. This could be linked to the parents active participation in their infant care.

5.4 Perception of Kangaroo mother care outcome to parents who have implemented KMC.

The perception of a practice like Kangaroo mother care plays a major role in determining it implementation. A good experience of KMC will foster positive perception which will favor the practice while negative perception will be a barrier to the practice. This question was answered by theme, need for commitment that focused on improved infants survival and interuptions of participants daily lives. Majority of the participants had a positive perception on KMC because of the associated benefits. The participants were motivated to continue with the KMC practice through observation of its benefits such as faster weight gain, provision of warmth, increased milk production, feeling good, satisfaction from taking part in the care of their infant and offering their infants protection their from infections.These factors contribute to improved infants survival

which guided their assertion that they would be willing to practice KMC again. The findings are comparable to a retrospective study down in Sweden by Blomqvist and Nyqvist (2011) showed that mothers of moderately preterm and ill newborn infants had good acceptance, positive assessment and should be allowed to continue with KMC as permitted by the infant's medical condition and care. The findings are also comparable to results of various studies which showed that Kangaroo mother care practice reduced infant morbidity and mortality, increased bonding, improved care and parents satisfaction, physiological stability, improved neurodevelopment, conserve energy and faster growth among others. (Nuuyoma, 2012;Mwendwa et al., 2012;Campbell-Yeo et al., 2015;Charpak et al., 2017;Swarnkar & Vagha, 2016). Hence, extending the benefits of KMC to all premature infants is very important in improving their survival.

The barriers perceived by the participants as hindrances to KMC practice were fatigue during KMC, sleeping difficulties while the baby is in kangaroo position and high temperatures. These barriers were further complicated by inadequate knowledge of KMC and fathers inability to practice KMC in the hospital. All the participants in this study pointed out that for one to reap the benefits of Kangaroo, commitment was required. These findings are in line with those of Cattaneo et al., (2018) which showed that sleeping in kangaroo position was difficult, high temperatures, fear of hurting the infant , fatigue and concerns on how to express the breast milk, socially defined roles where the fathers were left out of KMC practice were mentioned as the perceived barriers to KMC. Other studies also reported that some mothers perceived their infant care as exhausting and uncomfortable, provision of KMC even at night left the mother no time to rest, and the fact that none of the mothers would opt to discontinue the practice, sleeping with the baby was difficult because ethic position is uncomfortable and led to insufficient sleep and it was stressful for both parents to have older siblings at home (Blomqvist, Nyqvist, 2011);(Blomqvist et al., 2012); (Blomqvist et al., 2013). Also in line with those of another study which showed that mothers who provided KMC reported that KMC can be an energy draining practice (Anderzén-Carlsson et

al., 2014). Following the findings, the health care providers should continue encouraging the parents to continue practicing Kangaroo care because its benefits outweighs the feelings of exhaustion.

5.5 Support that parents receive from health workers, KMC champions, spouses, friends, relatives, hospital management and their employers while providing kangaroo mother care.

This question was evaluated by one theme: Enabling the practice and three subthemes also emerged: Information, peer support and conducive environment.

Help is very crucial during this anxious and emotional period. Majority of the participants felt that the support they received was enough while the minority had some complains. The findings are similar to a study that showed external factors in the society such as friends, family and community are a major determinant of kangaroo mother care practice in becoming a parent if they are supported, they enjoy the practice and if not, the experience became an energy draining exercise (Anderzén-Carlsson et al., 2014). The results from a Systematic found that lack of help with kangaroo mother care practice or other obligations was one of the barriers to KMC while, support from family, friends and other mentors was an enabler to KMC (Seidman et al., 2015). This is in line with findings of this study which showed the participants were supported as per their expectations. In addition, findings of a study in India that examined effect of withdrawing physician champions on KMC and breastfeeding revealed that odds of receiving KMC reduced by 45% as compared to presence of champions, rate of initiating KMC dropped by 38% and duration of skin to skin reduced by 1.47 hours (Soni et al., 2016). This shows that presence of champions is important in KMC practice. The parents also mentioned the government as a supportive factor as it provided both parents with temporary parental benefit during the infants' entire NICU stay. This enabled the parents to stay home from work and care for their infants with KMC instead(Blomqvist et al., 2013).

Provision of clean space, bed & bed linen, chairs, stool, regulating the room temperatures and being there to answer their concerns enabled the participants to feel the urge to start and continue with Kangaroo practice. The provision of a conducive environment may act as a motivator for KMC practice. Less than half identified the challenges and areas that the hospital can improve to maximize their hospital stay.

The finding contrast with those of a study to describe parent's experience of information and communication mediated by staff nurses before and during KMC at neonatal wards showed that information and communication was experienced as both adequate and inadequate (Lemmen et al., 2013). However, a few participants in this research could not explain how infants adds weight when on Kangaroo, concerns of the baby getting tired while in kangaroo position and the Mis - advising that was reported, shows that the information they were given was not adequate. Therefore, conflicting emotions arise when nurse practice KMC as routine without deeper knowledge and skills (Lemmen et al., 2013). This is comparable to findings of a qualitative study which found that nurse-mother interaction that involves effective communication and psychosocial support is very important (Phuma-Ngaiyaye & Kalembo, 2016). This corresponds with findings of a study among adolescent aged 15 to 19 years found that while the participants received information on KMC, interaction with health providers in the ward was supportive and formal (Ernestine Robertson & Crowley, 2018). However, their interaction with nurses sometimes was unsatisfactory. This is because the baby would be cared for leaving out the mother, no physical support and the social worker gave social support. In addition, on discharge the support given was on infant care but not on the mothers. This is in contrast with the findings in this study where by parents were given information on family planning to delay birth which increases chance of a preterm birth. A few participants revealed information which was not true about KMC while others showed that the information given to them was inadequate on how the baby adds weight while in Kangaroo mother care.

CHAPTER SIX: CONCLUSION AND RECOMMENDATION

6.1. Conclusion

The researcher has drawn the following conclusions based on the study findings-:

Kangaroo mother care is an effective and safe method of caring for low birth weight infants. KMC allows the parents to normalize their birth experience which would otherwise be hindered by nursing a preterm infant in an incubator.It also enables them to take part or contribute to the care of their premature infant and streghthens the bond between the pair. In addition, KMC provides psychological healing following the birth of their infant before time therefore,which denys them time to prepare psychologically for a birth.

Kangaroo mother care is perceived positively or negatively depending on the outcome. The benefits of KMC such as warmth provision, infection reduction and faster weight gain act as a motivation to continue with the practice because they contribute to improved infants survival and early hospital discharge. However, KMC is tiring and time consuming and require a lot of commitment for its benefits to be realized.

The support and information given to parents of premature baby's is very essential to transit smoothly to parenthood. Help provided to parents especially their spouses shows they are together in the care of their infant. The participants indicated that they received enough support from the health team, family members, friends and their religious leaders. They were also happy with the physical environment of the NBU and Kangaroo ward which enabled them to continue with the practice. The information given to the participants was adequate and inadequate to some extent because the participants could recall what they were told at the start of KMC and at the discharge but majority had questions on how KMC helps in weight gain and they also felt the baby was getting tired while in Kangaroo position.

6.2. Recommendations

The following recommendations have been suggested based on the study findings-:

- Kangaroo mother care should be practiced in all referral and teaching hospitals, county hospitals whether public, private or faith based hospitals because it gives the parent a chance to experience near normal birth experience following a premature birth and allows them to participate in the care. Therefore, all premature infants should be Kangarooed if their conditions allows.
- Prematurity or low birth weight awareness and information about its causes and the option of providing kangaroo should be encouraged in high risk groups of parents to improve the level of commitment in KMC practice.
- To ensure the information given to parents during KMC is adequate, the health team should be competent and confident when providing important information concerning the benefits and challenges of effective kangaroo care.
- There is need for the hospital to provide entertainment such as cool background music to distract the parents from feeling tired and reduce boredom in the Kangaroo ward which follows carrying the infant in Kangaroo position for more than 20hours/day in one position.
- Institutions of higher learning should conduct a comparative study on the exeperiences of parents practicing continuous KMC and those practicing Intermittent KMC.

6.3. Limitation

- By its nature, qualitative research is not generalizable. However, the researcher has explained the procedures necessary to replicate the study in other settings. Participants may have had difficulties expressing their thoughts and feelings in English or Kiswahili since it was not their first language.

APPENDIX I: CONSENT FORM FOR PARTICIPANTS

Title of the study: Experiences of parents on kangaroo mother care in the neonatal clinic at Kenyatta National Hospital.

Investigator: Marion Njoki Gakuna (Masters of Science in Nursing (Pediatrics) student, Year II). School of Nursing, University of Nairobi, P.O BOX 30197-00400, Nairobi.

Institution of Study: Kenyatta National Hospital.

Introduction to the study:

Permission is requested from you to enroll in this medical research study, carried out by Marion Njoki Gakuna who is a student pursuing Master's Degree in Nursing (Pediatric Nursing) at the University of Nairobi. The research is being carried out in the Neonatal clinic at the Kenyatta national hospital.

This consent form gives you information about the study, the risks and benefits and the process will be explained to you. Once you understand the study, and if you agree to take part, you will be asked to sign or use your thumb finger to put a mark (thumb print) on the consent.

Purpose of the study.

The purpose of this study is to explore your (parent) experiences during skin to skin contact between the pair by placing the infant naked on the chest, between the breasts and securing it with a sling/lesso. The information obtained from you will then be aggregated to inform about your experiences, perceptions and support during skin to skin contact with the baby, placed naked between the breasts for prolonged period of time. This will help influence policy making by identifying areas of improvement in provision of quality care during Kangaroo care.

Time: The interview will take about 45minutes.

Procedure to be followed: With your permission, the researcher will interview you using a semi structured interview schedule to find out your demographic details, experiences and related information while practicing skin to skin contact whereby the baby is placed on the chest between the breasts naked and the interview will be tape recorded.

Benefits: There will be no direct benefits for you but the findings will be useful in improving the quality of service offered to parents during skin to skin contact with their infants, whereby the baby is placed naked on the chest and between the breasts. These will inform and contribute to policy development. All information obtained from you will be kept in confidence.

Risk: There will be no risk involved in this study.

Assurance of confidentiality: All the data collected from the study on the interview schedule sheets and tape recorder will be de-identified, sealed in envelopes and kept in locked file cabinets by the researcher during the study**.** Serial number will be used instead of your name. At no point will your name be used or mentioned during data handling or in any resulting publications. Your identity will be kept confidential. Any relevant additional information you will volunteer to offer

to the researcher, will remain confidential and will only be disclosed with your permission. The consent forms will be kept separate from digital recording and notes during interview, transcription, and analysis. It is only the investigator who will have access to the data. After transcription, coding and analysis, the recording will be stored by the investigator for additional five years after which it will be destroyed. The investigator has no conflict of interest.

Your rights as a participant

1. Your agreement to participate in this study is voluntary.
2. You may withdraw from the study at any time without necessarily giving a reason for your withdrawal.
3. After you have read the explanation please feel free to ask any questions that will enable you to understand clearly the nature of the study.

Sharing the results

The results of this study may be presented during scientific and academic forums and may be published in scientific journals and academic papers.

Contact Person:

In case you need to contact me, my academic department or the Kenyatta National Hospital/University of Nairobi Ethics and research committee concerning this study use the contacts provided below.

Investigator

Name: Marion Njoki Gakuna

Phone No. +254 722 303 062

Email: mgakuna2@gmail.com.

Physical Address: School of Nursing Sciences, University of Nairobi.

Supervisors:

Name: Dorcas Maina

Phone: +254 724 440 843

Email: dmaina@uon.ac.ke

Lecturer, School of Nursing Sciences

University of Nairobi

Name: Dr. Abednego Ongeso

Phone: +254 720 775 815

Email: ongeso@uon.ac.ke

Lecturer, School of Nursing Sciences

University of Nairobi.

Ethics Committee

Prof M.L Chindia

The Secretary,

KNH/UON Ethics and Research Committee

Tel No. +254 7263000-9

Email: uonknh_erc@uonbi.ac.ke

Physical Address: School of Pharmacy

University of Nairobi.

KIAMBATISHO I: FOMU YA KIBALI KWA WASHIRIKI

Kichwa cha utafiti: Uzoefu wa wazazi kwenye ngozi kwa ngozi kuwasiliana na watoto wao katika kliniki ya watoto wachanga sana ya Hospitali kuu ya Kenyatta.

Mtafiti: Marion Njoki Gakuna, Mwanafunzi wa mwaka wa pili wa Sayansi kwa Shahada ya uzamili katika uuguzi wa watoto, Chuo Kikuu Cha Nairobi, S.L.P 30197-00400, Nairobi.

Taasisi ya utafiti: Hospitali Kuu ya Kenyatta.

Utangulizi wa utafiti:

Ruhusa imeombwa kwako kujiandikisha katika utafiti huu, inayotekelezwa na Marion Njoki Gakuna ambaye ni mwanafunzi wa Sayansi kwa Shahada ya uzamili katika uuguzi wa watoto, Chuo Kikuu Cha Nairobi. Utafiti utatekelezwa katika kliniki ya watoto wachanga sana ya Hospitali kuu ya Kenyatta. Hii fomu ya kibali inakupa maelezo kuhusu huu utafiti. Utaelezewa kuhusu hatari, faida na mchakato.Punde utakapoelewa huu utafiti,na ukubali kuhusika, utaulizwa uweke sahihi ama utumie kidole gumba kuweka alama katika fomu ya kibali.

Kusudi la utafiti.

Kusudi la utafiti huu ni kuchunguza uzoefu wako (mzazi) wakati wa kuweka mtoto akiwa uchi katika kifua, katikati ya matiti na kufunga kwa lesso.Habari itakayopatikana kutoka kwako itajumulishwa na za wazazi wengine ili tupate habari muhimu kuhusu uzoefu wenu,hisia zenu na usaidizi mnayopata wakati wa mototo anapowekwa kwenye kifua cha mzazi ili kufanikisha mguso wa ngozi kwa ngozi kusudi apate joto. Hii itasaidia katika ubunifu wa sera kwa kutambua sehemu zinazohitaji kuboreshwa katika utoaji wa huduma bora za afya wakati wa kuweka motto kwenye kifua.

Muda: Mahojiano yatachukua muda wa dakika arobaini na tano.

Utaratibu utakayofuatwa: Kufuatia ruhusa yako, mtafiti atakuhoji akitumia ratiba ya mahojiano.

Uhakika wa siri: Data zote zitakazokusanywa kutoka kwenye utafiti, kwa ratiba ya mahojiano na kinasa sauti itafutwa ili isihusishwe nawe, itafungwa kwenye bahasha kisha ifungiwe kwa kabati ya nakala. na mtafiti wakati wa utafiti. Nambari ya siri itatumiwa badala ya jina lako. Kulingana na idhini utakayopeana, mtafiti atakuhoji akitumia ratiba ya mahojiano ili kupata maelezo kukuhusu wewe binafsi, uzoefu na habari zozote zinazohusiana na mguzo wa ngozi kwa ngozi. Hayo mahojiano yatanashwa kwa kinasa sauti.

Faida: Hakutakuwa na faidi moja kwa moja kwako wewe, lakini matokeo yatakuwa na manufaa katika kuboresha ubora wa huduma inayotolewa kwa wazazi wakati wa ngozi kwa ngozi kuwasiliana na watoto wao, ambapo mtoto huwekwa uchi kwenye kifua na kati ya matiti. Hizi zitafahamu na kuchangia katika maendeleo ya sera. Taarifa zote zilizopatikana kutoka kwako zitahifadhiwa kwa ujasiri.

Hatari: Hatakuwa na hatari yoyote inayohusika katika utafiti huu.

Hakuna wakati ambao jina lako litatumiwa au kutajwa wakati wa utunzaji wa data au katika machapisho yoyote. Utambulisho wako utahifadhiwa siri. Maelezo yoyote ya ziada ambayo utajitolea kutoa kwa mtafiti, itaendelea kuwa ya siri na itafunuliwa tu kwa ruhusa yako. Fomu za ridhaa zitahifadhiwa tofauti na zile za kurekodi pamoja na maelezo wakati wa mahojiano, usajili, na uchambuzi. Ni mtafiti tu ambaye atapata data. Baada ya usajili, ukodishaji na uchambuzi, kumbukumbu hiyo itahifadhiwa na mtafiti kwa kipindi cha miaka mitano na baadaye itaharibiwa. Mpelelezi hana migogoro ya riba.

Haki zako kama mshiriki

1) Kukubali kwako kushiriki katika utafiti huu ni kwa hiari.
2) Unaweza kuondoka kutoka kwenye utafiti wakati wowote bila ya kutoa sababu ya uondoaji wako.
3) Baada ya kusoma maelezo tafadhali jisikie kuuliza maswali yoyote ambayo itawawezesha kuelewa wazi asili ya utafiti.

Kushiriki matokeo

Matokeo ya utafiti huu yanaweza kutolewa wakati wa vikao vya kisayansi na vya kitaaluma na inaweza kuchapishwa katika majarida ya kisayansi na karatasi za kitaaluma.

Kuwasiliana na mtu:

Ikiwa unahitaji kuwasiliana na mimi, idara yangu ya kitaaluma au hospitali kuu ya Kenyatta Kenyatta/Chuo Kikuu cha Nairobi Maadili na kamati ya utafiti kuhusu utafiti huu hutumia anwani zilizotolewa hapa chini.

Mtafiti

Jina: Marion Njoki Gakuna

Nambari ya simu +254 722 303 062

Barua pepe: mgakuna2@gmail.com

Anwani: Shule ya Sayansi ya Uuguzi, Chuo Kikuu cha Nairobi.

Wasimamizi:

Jina: Dorcas Maina

Simu: +254 724 440 843

Barua pepe: dmaina@uon.ac.ke

Mhadhiri, Shule ya Sayansi ya Uuguzi

Chuo Kikuu cha Nairobi

Jina: Dr Abednego Ongeso

Simu: +254 720 775 815

Barua pepe: ongeso@uon.ac.ke

Mhadhiri, Shule ya Sayansi ya Uuguzi

Chuo Kikuu cha Nairobi.

Kamati ya Maadili

Prof M.L Chindia

Katibu,

KNH / UON Kamati ya Maadili na Utafiti

Simu ya Nambari +254 7263000-9

Barua pepe: uonknh_erc@uonbi.ac.ke

Anwani: Shule ya Pharmacy

Chuo Kikuu cha Nairobi.

CONSENT CONFIRMATION

I hereby confirm that I have full knowledge of the study being undertaken, that I have read and understood the information sheet supplied above and the study investigator informed me about the nature, conduct and benefits of the study. I have read and understood the contents of the information sheet.

I am aware that participation is voluntary, there are neither risks nor monetary benefits involved in this study and that I can withdraw from the study should I wish to do so without any consequences. I am also aware that the information that I will be giving will be confidential and that the results of the study will be anonymously processed. I have had sufficient opportunity to ask questions and declare myself prepared to participate in the study. I agree to participate in the study. I have read and everything is clearly explained to me.

I …… give consent to the investigator to interview me and permit her to tape record the interview and use the information obtained from me in her study. The nature of the study has been explained to me by Marion Njoki Gakuna.

Signature …… Date …….

I the Investigator confirm that I have explained the nature and effect of the study to the participant and the content of this consent in details and the participant has agreed to voluntarily participate without any coercion or undue pressure.

Signature …….. Date ……..

APPENDIX II: INTERVIEW SCHEDULE

This interview schedule forms part of a Master's of Science Nursing (Pediatric Nursing) project on experiences of parents on Kangaroo mother care at the Neonatal clinic in Kenyatta National Hospital.

The principal investigator is Marion Njoki Gakuna currently a postgraduate student at the department of Pediatric Nursing, School of Nursing University of Nairobi.

The information collected will be treated with utmost confidentiality and at no time will you be required to identify yourself by name.

In order to participate you must have had an experience on Kangaroo mother care in New born unit or Kangaroo ward at the Kenyatta National Hospital.

INTERVIEWER GUIDE

1) It is assured that the data you will provide shall be used only to gain an understanding of parent's experiences, perceptions and support when providing KC to their preterm infants.
2) The interview will take place in the neonatal clinic at the quiet observation room.
3) Each interview will last about 45minutes and will be audio-recorded with the participant's consent, then transcribed and translated for analysis.
4) Each participant will be allowed enough time to express him or herself.
5) The interviews will be identified by the letter 'P' (Parent), to ensure anonymity and data collected will be kept confidential.
6) The information gathered is not punitive in any nature and it will not interfere with your rights of receiving further services and management in the hospital.

INTERVIEW SCHEDULE QUESTIONS

Serial number…….. Date……/……/……

Time……

Section A: Demographic data

Parent's biographic data

1. Sex of the parent
   Male
   Female
2. Parents age
   <20yrs
   21 to 30yr
   31 to 40 yrs.
   >40yrs
3. Education level
   Primary
   Secondary
   College
   University
4. Occupation……
5. Marital status-: (single, married, partner, No response).
6. Culture defined roles in infant care.

Infant biographic data

1. Mode of delivery
2. Sex
3. Birth weight
4. Gestational age at birth
5. Weight of baby on discharge
6. Weight at initiation of Kangaroo care
7. Current weight
8. Mode of feeding
9. Type of Kangaroo care
10. Duration of KC in the ward.

Factors related to birth of a premature baby

1. Medical history of hypertension, anemia, diabetes, malaria, HIV and use of drugs during.
2. Obstetric history e.g. gravidity, parity, previous premature birth, abortion, pre-eclampsia and eclampsia, antepartum hemorrhage, premature rupture of membranes (PROM).

Section B: Understanding the experiences of parents while providing KC.

1. How did you feel when you were told that you had to start KC?
2. What information were you given when you started KC?
3. What did you feel being admitted in the unit/ward?
4. How did you find practicing Kangaroo care in the hospital?
5. Explain to me how the ward routine was and other activities in the unit/ward in relation to provision of KC.
6. Has KC affected your day to day life?
7. Do you feel embarrassed when providing Kangaroo care?
8. Did you feel that your privacy was compromised when providing KC?
9. Explain to me how your interactions with other mothers was in the ward/unit?
10. How did you feel about other mothers in the unit/ward?
11. Explain to me how you interacted with health team?
12. How was the visiting time?
13. Is Kangaroo mother care useful to you and your baby? Explain?
14. Do you feel tired when practicing KC?
15. What factors motivates you to continue providing KC?
16. What prevents you from discontinuing KC?
17. Have you ever thought of discontinuing KC?
18. Would you practice KC again if you delivered another preterm?
19. Would you recommend KC to other women?

Section C: Perceptions of mothers in preparation for Kangaroo care

Introductory and probing questions

1. What was your experience of being pregnant and delivery of a baby?
2. How do you feel about being a mother?
3. What were your feelings when you gave birth to a preterm baby?
4. How did you feel when you saw your baby in an incubator?
5. What is your understanding of Kangaroo care?
6. What do you like or do not like about KC.

Section D: Psychosocial factors related to KC provision.

Describe the physical, emotional and social support parents experience while providing Kangaroo care.

1. Who supported you while in the ward and in which way?
2. Do you think that you could have received more help and support?
3. What do you think could have made your hospital stay better?
4. What information were you given during discharge from the hospital?

APPENDIX III: SCREENING TOOL FOR ELIGIBILITY

1. How many weeks was your pregnancy at the time of delivery?
   < 24 wks
   Between 24wks and 32 wks
   Between 32wks and 36 wks.
   >36wks
2. What was the birth weight of your infant?
   <1000gms
   Between 1000gms and 1500gms
   Between 1501gms and 2000gms
   Above 2000gms
3. Have you ever practiced skin to skin contact whereby the baby is placed naked on your chest and secured with a sling (KMC)?
   Yes
   No.
4. If yes for above, for how long?
   <1wk.
   > 1wk.
5. Which type of skin to skin contact did you practice?
   Continuously.
   Intermittently.
6. Are you still practicing skin to skin by placing the baby between the breasts?
   Yes.
   No.
7. If no for above when did you stop practicing?
   <2wks ago.
   >2 wks.' ago

8. Which institution taught you about skin to skin contact whereby the baby is placed naked between the breasts (KMC)?
   KNH

   Others (specify...

9. If others for above, what was the reason for referral?
   Choice
   Nearest health facility to me
   Others (specify…

APPENDIX IV: CONSENT FOR ELIGIBILITY

My name is Marion Gakuna, a Masters student in pediatric nursing at the University of Nairobi. I am conducting a research study on the experiences of parents on skin to skin contact whereby the baby is placed on the chest, between the breasts naked and secured with a sling (KMC) in the neonatal clinic at Kenyatta National Hospital. I wish to inform you that you have been selected as one of the participants in this study. There are neither risks nor monetary benefits involved in this study and your participation is voluntary. You have a right to withdraw from the study at any time. In case you wish to withdraw, your baby will continue receiving the due care and there will be no intimidation for you to remain in the study. The information collected during this study will be strictly confidential. This study could help influence policy making by identifying areas of improvement during provision of skin to skin contact (KMC) with the infant. This study has been approved by the KNH/UON Ethics and Research committee, a copy is of approval is available on demand. If you have any questions about the study or regarding your participation, please feel free to contact the principal investigator on 0722 303 062.

Participant's statement

I understand that my participation is voluntary and that I may refuse to participate or withdraw my consent and stop taking part at any time without any penalty. I hereby freely consent to take part in the study.

Participants signature……. Date……

Researchers signature…….. Date……..

SOMO LA IV: MHANO WA KUHUSISHWA

Jina langu ni Marion Gakuna, mwanafunzi wa Sayansi kwa Shahada ya uzamili katika uuguzi wa watoto, Chuo Kikuu Cha Nairobi. Ninafanya utafiti juu ya uzoefu wa wazazi kuwasiliana na mtoto ngozi kwa ngozi ambapo mtoto huwekwa kwenye kifua, kati kati ya matiti akiwa uchi na kufungwa kwa lesso kumuzuia kuanguka (KMC) katika kliniki ya watoto wachanga sana hospitalini kuu ya kitaifa ya Kenyatta. Napenda kukujulisha kwamba umechaguliwa kama mmoja wa washiriki katika utafiti huu. Hakuna hatari wala faida za fedha zinazohusika katika utafiti huu na ushiriki wako ni wa hiari. Una haki ya kujiondoa kwenye utafiti wakati wowote. Ikiwa unataka kuondoka, mtoto wako ataendelea kupokea uangalizi huo na hakutakuwa na hofu ya kubaki katika utafiti. Maelezo yatakayo kusanywa wakati wa utafiti huu itakuwa ya siri. Utafiti huu unaweza kusaidia ushawishi wa sera kwa kutambua maeneo ya kuboresha wakati wa kuweka mtoto ngozi kwa ngozi (KMC). Utafiti huu umekubaliwa na kamati ya KNH / UON ya Maadili na Utafiti, nakala ya kibali inapatikana kwa mahitaji. Ikiwa una maswali yoyote kuhusu utafiti au kuhusu ushiriki wako, tafadhali jisikie huru kuwasiliana mtafiti katika nambari ya simu 0722 303 062.

Taarifa ya Mshiriki

Ninaelewa kuwa ushiriki wangu ni wa hiari na niweze kukataa kushiriki au kuondoa idhini yangu na kuacha kushiriki wakati wowote bila adhabu yoyote. Mimi nikubali kwa uhuru kushiriki katika utafiti huu.

Washiriki saini ..... Tarehe……

Watafiti saini .... Tarehe ..... .

APPENDIX V: LETTER OF REQUESTING KNH/UON ERC APPROVAL

Marion Njoki Gakuna,

Reg No: H56/7453/2017,

School of Nursing,

University of Nairobi.

Mobile No: 0722 303 062.

Email address: mgakuna2@gmail.com.

April 2019

The Chairperson,

KNH-UoN Ethics and Research Committee.

RE: EXPERIENCES OF PARENTS ON KANGAROO MOTHER CARE IN THE NEONATAL CLINIC AT KENYATTA NATIONAL HOSPITAL.

Dear Sir/Madam,

I am a post graduate student pursuing Master's Degree in Nursing (Pediatrics Nursing) at School of Nursing University of Nairobi.

I am writing to request KNH-UON ERC review and approval of my research proposal named above for my thesis project.

You will find the attached research proposal document for your reference.

Yours faithfully

Marion Njoki Gakuna

APPENDIX VI: PERMISSION REQUEST FROM KNH

Marion Njoki Gakuna,

University Of Nairobi,

School Of Nursing Sciences.

April 2019

The Chief Executive Officer,

Kenyatta National Hospital.

Through

Assistant Chief Nurse,

Neonatal clinic, KNH.

Dear Sir/Madam

RE: PERMISSION TO UNDERTAKE A STUDY

I am a second year post graduate nursing student, pursuing Master of Science in Nursing (Pediatrics Nursing).

I am writing to request permission to conduct a research study on "Experiences of parents on Kangaroo mother care in the neonatal clinic at Kenyatta National Hospital".

Your kind consideration to allow me to conduct this research at KNH will be highly appreciated and will go a long way in facilitating the completion of my study.

The research findings will inform on interventions to improve Kangaroo mother care.

Please find the attached approval letter from KNH/UON ERC.

Yours faithfully,

Marion Njoki Gakuna

APPENDIX VI: STUDY BUDGET

The below table constitute the budgeted cost of the study.

Serial No	Item	Unit cost	Quantity	Total cost
1. Personnel				
	Research Assistant	1000 x 1	14days	14,000
2. Supplies and equipment				
	Pencils & Pens	20	10	200
	Audio recorder	1	5000	5000
	Flash-disks	2	1,500	3,000
	Printing papers	500	4	2,000
	Printing charge ERC Fee	1,000 2,000	4 1	4,000 2,000
3. Consultancy				
	Data stastician	25,000	25,000	25,000
	Data management	1,500	14	21,000
4. Operating cost				
	Binding fee	1,500	4	6,000
	Airtime	1,000	4	4,000
	Publication	20,000	1	20,000
	Binding	6,000	4	24,000
	Total			130,200
5. Contingency	15% of the total cost			19,530
Total			**Grand**	**149,730**

Activity timeline

Duration of study: December 2018-August 2019

Month/Activity	December 2018 January 2019	February 2019	March 2019	April 2019	May 2019	June 2019	July 2019
Research proposal writing and submission to supervisor							
Research Proposal submission to ERC							
Action on ERC recommendation							
Training of research assistants and pre-testing							
Data collection and analysis							
Research report writing							
Data dissemination							

REFERENCES

Anderzén-Carlsson, A., Lamy, Z. C., & Eriksson, M. (2014). Parental experiences of providing skin-to-skin care to their newborn infant--part 1: a qualitative systematic review. *International Journal of Qualitative Studies on Health and Well-Being*, *9*, 24906. https://doi.org/10.3402/qhw.v9.24906

Arivabene, J. C., & Tyrrell, M. A. R. (2010). Kangaroo Mother Method: Mothers' Experiences and Contributions to Nursing. *Revista Latino-Americana de Enfermagem*, *18*(2), 262–268. https://doi.org/10.1590/S0104-11692010000200018

Athanasopoulou, E., & Fox, J. R. E. (2014). Effects Of Kangaroo Mother Care On Maternal Mood And Interaction Patterns Between Parents And Their Preterm, Low Birth Weight Infants: A Systematic Review. *Infant Mental Health Journal*, *35*(3), 245–262. https://doi.org/10.1002/imhj.21444

Blomqvist, Nyqvist, K. H. (2011). Swedish mothers' experience of continuous Kangaroo Mother Care. *Journal of Clinical Nursing*, *20*(9–10), 1472–1480. https://doi.org/10.1111/j.1365-2702.2010.03369.x

Blomqvist, Y. T., Frölund, L., Rubertsson, C., & Nyqvist, K. H. (2013). Provision of Kangaroo Mother Care: supportive factors and barriers perceived by parents. *Scandinavian Journal of Caring Sciences*, *27*(2), 345–353. https://doi.org/10.1111/j.1471-6712.2012.01040.x

Blomqvist, Y. T., Nyqvist, K. H., Rubertsson, C., & Funkquist, E.-L. (2017). Parents need support to find ways to optimise their own sleep without seeing their preterm infant's sleeping patterns as a problem. *Acta Paediatrica*, *106*(2), 223–228. https://doi.org/10.1111/apa.13660

Blomqvist, Y. T., Rubertsson, C., Kylberg, E., Jöreskog, K., & Nyqvist, K. H. (2012). Kangaroo Mother Care helps fathers of preterm infants gain confidence in the paternal role. *Journal of Advanced Nursing*, *68*(9), 1988–1996. https://doi.org/10.1111/j.1365-2648.2011.05886.x

Brouwer, A. J., Gabriels, K., Brouwer, A. J., Maat1, J., & Van Den Hoogen, A. (2015). *Kangaroo Care: Experiences and Needs of Parents in Neonatal Intensive Care: A Systematic Review "Parents" Experience of Kangaroo Care' Physical Causes of dosing errors in patients receiving multi infusion policy View project Joke zoet-lavooi View project Kangaroo Care: Experiences and Needs of Parents in Neonatal Intensive Care: A Systematic Review "Parents" Experience of Kangaroo Care'*. https://doi.org/10.16966/pnnoa.102

Campbell-Yeo, M. L., Disher, T. C., Benoit, B. L., & Johnston, C. C. (2015). Understanding kangaroo care and its benefits to preterm infants. *Pediatric Health, Medicine and Therapeutics*, *6*, 15–32. https://doi.org/10.2147/PHMT.S51869

Cattaneo, A., Amani, A., Charpak, N., De Leon-Mendoza, S., Moxon, S., Nimbalkar, S., … Bergh, A.-M. (2018). Report on an international workshop on kangaroo mother care: lessons learned and a vision for the future. *BMC Pregnancy and Childbirth*, *18*(1), 170. https://doi.org/10.1186/s12884-018-1819-9

Chan, G. J., Labar, A. S., Wall, S., & Atun, R. (2016). Kangaroo mother care: a systematic review of barriers and enablers. *Bulletin of the World Health Organization*, *94*(2), 130-141J. https://doi.org/10.2471/BLT.15.157818

Charles, S. J., Ploeg, C., & Mckibbon, J. A. (2015). The Qualitative Report Sampling in Qualitative Research: Insights from an Overview of the Methods Literature. In *The Qualitative Report* (Vol. 20). Retrieved from http://nsuworks.nova.edu/tqr/vol20/iss11/5

Charpak, N., Tessier, R., Ruiz, J. G., Hernandez, J. T., Uriza, F., Villegas, J., … Maldonado, D. (2017). Twenty-year Follow-up of Kangaroo Mother Care Versus Traditional Care. *Pediatrics*, *139*(1), e20162063. https://doi.org/10.1542/peds.2016-2063

Chisenga, J. Z., Chalanda, M., & Ngwale, M. (2015). Kangaroo Mother Care: A review of mothers′ experiences at Bwaila hospital and Zomba Central hospital (Malawi). *Midwifery*, *31*(2), 305–315. https://doi.org/10.1016/j.midw.2014.04.008

Dahlø, R. H. T., Gulla, K., Saga, S., Kristoffersen, L., & Eilertsen, M. B. (2018). *International Journal of Pediatrics & Neonatal Care Sacred Hours : Mothers ' Experiences of Skin-to-Skin Contact with Their Infants Immediately After Preterm Birth*. *4*.

Dalbye, R., Calais, E., & Berg, M. (2011). Mothers' experiences of skin-to-skin care of healthy full-term newborns - A phenomenology study. *Sexual and Reproductive Healthcare*, *2*(3), 107–111. https://doi.org/10.1016/j.srhc.2011.03.003

Ernestine Robertson, A., & Crowley, T. (2018). *the Experiences of Adolescent Mothers on Providing Continuous KangarKangaroo Mother Care: Feelings and Perceptions of Mothers in Stage Three Origin al Tayanne Kiev Carvalho Dias1, Anna Tereza Alves Guedes2, Tarsila Nery Lima Batista3, Daniele de Souza Vie*. (March). Retrieved from https://scholar.sun.ac.za

Feeley, N., Genest, C., Niela-Vilén, H., Charbonneau, L., & Axelin, A. (2016). Parents and nurses balancing parent-infant closeness and separation: a qualitative study of NICU nurses' perceptions. *BMC Pediatrics*, *16*, 134. https://doi.org/10.1186/s12887-016-0663-1

Gabriels, K., Brouwer, A. J., Maat, J., & Den, A. Van. (2015). *Sci Forschen Pediatrics and Neonatal Nursing : Open Access Kangaroo Care : Experiences and Needs of Parents in Neonatal Intensive Care : A Systematic Review ' Parents ' Experience of Kangaroo Care '*. (October). https://doi.org/10.16966/pnnoa.102

Hendricks-Muñoz, K. D., Li, Y., Kim, Y. S., Prendergast, C. C., Mayers, R., & Louie, M. (2013). Maternal and neonatal nurse perceived value of kangaroo mother care and maternal care partnership in the neonatal intensive care unit. *American Journal of Perinatology*, *30*(10), 875–880. https://doi.org/10.1055/s-0033-1333675

Intrapartum care for a positive childbirth experience WHO recommendations. (2018). Retrieved from http://apps.who.int/bookorders.

Jmwendwa, D. R. (2006). *The impact of partial Kangaroo mother care on growth rates and duration of hospital stay of low birth weight infants in Kenyatta national Hospital a dissertation submitted in part fulfilment for the degree of master of medicine*. Retrieved from http://erepository.uonbi.ac.ke/bitstream/handle/11295/24861/Mwendwa_The impact of partial kangaroo mother care on growth rates and duration of hospital stay of low birth weight infants in Kenyatta National Hospital.pdf?sequence=5

Kipchumba Tarus, T. (2015). Mothers' Experiences of Kangaroo Mother Care During Hospitalization of Their Preterm Babies at an Academic Hospital in Johannesburg. *American Journal of Nursing Science*, *4*(4), 200. https://doi.org/10.11648/j.ajns.20150404.18

Kymre, I. G., & Bondas, T. (2013). Balancing preterm infants' developmental needs with parents' readiness for skin-to-skin care: A phenomenological study. *International Journal of Qualitative Studies on Health and Well-Being*. https://doi.org/10.3402/qhw.v8i0.21370

Lemmen, D., Fristedt, P., & Lundqvist, A. (2013). Kangaroo care in a neonatal context: parents' experiences of information and communication of nurse-parents. *The Open Nursing Journal*, *7*, 41–48. https://doi.org/10.2174/1874434601307010041

Leonard, A., & Mayers, P. (2008). Parents' lived experience of providing kangaroo care to their preterm infants. *Health SA Gesondheid*, *13*(4). https://doi.org/10.4102/hsag.v13i4.401

Mary, A. (2018). *Original Research Paper Nursing Awareness And Perception Of Kangaroo Mother Care Among Mothers And The Role Of The Healthcare Providers In Selected Primary Healthcare Facilities In Calabar South Local Government Area Of Cross River State* ,. (7), 105–109.

Mason, E., McDougall, L., Lawn, J. E., Gupta, A., Claeson, M., Pillay, Y., … Chopra, M. (2014). From evidence to action to deliver a healthy start for the next generation. *The Lancet*, *384*(9941), 455–467. https://doi.org/10.1016/S0140-6736(14)60750-9

Mathias, C. T., Mianda, S., & Ginindza, T. G. (2018). Evidence of the factors that influence the utilisation of Kangaroo Mother Care by parents with low-birth-weight infants in low- and middle-income countries (LMICs): a scoping review protocol. *Systematic Reviews*, *7*(1), 55. https://doi.org/10.1186/s13643-018-0714-9

Mellis, C. (2016). Kangaroo Mother Care and neonatal outcomes: A meta-analysis. *Journal of Paediatrics and Child Health*. https://doi.org/10.1111/jpc.13218

Mwendwa, A. C., Musoke, R. N., & Wamalwa, D. C. (2012). *Impact Of Partial Kangaroo Mother Care On Growth Rates And Duration Of Hospital Stay Impact Of Partial Kangaroo Mother Care On Growth Rates And Duration Of Hospital Stay Of Low Birth Weight Infants At The Kenyatta National Hospital*. *89*(2), 53–58.

Natal, K.-, Reddy, J., Cur, M., & McInerney, P. (2007). The experiences of mothers who were implementing Kangaroo Mother Care (KMC) at a Regional Hospital in KwaZulu-Natal. *Curationis*, (September), 62–67.

Nguah, S. B., Wobil, P. N. L., Obeng, R., Yakubu, A., Kerber, K. J., & Lawn, J. E. (2011). Perception and practice of Kangaroo Mother Care after discharge from hospital in Kumasi , Ghana : A longitudinal study. *BMC Pregnancy and Childbirth*, *11*(1), 99. https://doi.org/10.1186/1471-2393-11-99

Nirmala, P., Rekha, S., & Washington, M. (2006). Kangaroo Mother Care: Effect and perception of mothers and health personnel. *Journal of Neonatal Nursing*, *12*(5), 177–184. https://doi.org/10.1016/J.JNN.2006.07.008

Nuuyoma, V. N. (2012). *An exploration of perceptions regarding the feasibility of implementation of Kangaroo Mother Care in the maternity ward of Tsumeb district hospital, Namibia*. Retrieved from http://etd.uwc.ac.za/handle/11394/5135

Opara, P., & Okorie, E. (2017). Kangaroo mother care: Mothers experiences post discharge from hospital. *J Preg Neonatal Med*, *1*(1), 16–20.

Parmar, V. R., Kumar, A., Kaur, R., Parmar, S., Kaur, D., Basu, S., … Narula, S. (2009). Experience with Kangaroo mother care in a neonatal intensive care unit (NICU) in Chandigarh, India. *The Indian Journal of Pediatrics*, *76*(1), 25–28. https://doi.org/10.1007/s12098-009-0024-2

Phaphali Adzitey, S. (2017). *Knowledge and Attitude of Nurses in the Tamale Metropolis toward Kangaroo Mother Care (KMC)*. Retrieved from https://www.amhsr.org/articles/knowledge-and-attitude-of-nurses-in-the-tamalemetropolis-toward-kangaroo-mother-care-kmc.pdf

Phuma-Ngaiyaye, E., & Kalembo, F. W. (2016). Supporting mothers to bond with their newborn babies: Strategies used in a neonatal intensive care unit at a tertiary hospital in Malawi. *International Journal of Nursing Sciences*, *3*, 362–366. https://doi.org/10.1016/j.ijnss.2016.10.001

Polit, D. F., Beck, C. T., & Polit, D. F. (2008). *Resource manual to accompany Nursing research: generating and assessing evidence for nursing practice, 8th edition*. Retrieved from https://books.google.co.ke/books?id=Ej3wstotgkQC&printsec=frontcover&source=gbs_book_similarbooks#v=onepage&q&f=false

Roller, C. G. (2005). Getting to Know You: Mothers' Experiences of Kangaroo Care. *Journal of Obstetric, Gynecologic & Neonatal Nursing*, *34*(2), 210–217. https://doi.org/10.1177/0884217504273675

Salimi, T., Khodayarian, M., Bokaie, M., & Antikchi, M. (2014). *Mothers ' Experiences with Premature Neonates about Kangaroo Care : Qualitative Approaches*. *2*(1), 75–82.

Seidman, G., Unnikrishnan, S., Kenny, E., Myslinski, S., Cairns-Smith, S., Mulligan, B., & Engmann, C. (2015). Barriers and Enablers of Kangaroo Mother Care Practice: A Systematic Review. *PLOS ONE*, *10*(5), e0125643. https://doi.org/10.1371/journal.pone.0125643

Smith, Marlaine, Parker, & Marilyn. (2015). *Nursing Theories & Nursing Practice* (fouth). Retrieved from http://docshare03.docshare.tips/files/26827/268274013.pdf

Soni, A., Amin, A., Patel, D. V, Fahey, N., Shah, N., Phatak, A. G., … Nimbalkar, S. M. (2016). The presence of physician champions improved Kangaroo Mother Care in rural western India. *Acta Paediatrica (Oslo, Norway : 1992)*, *105*(9), e390-5. https://doi.org/10.1111/apa.13445

Suddell, J., Lanlehin, R., & Hill, M. (2015). A literature review of parents' experiences of kangaroo care in the neonatal unit. *Infant*, *11*(3), 96–99.

Swarnkar, K., & Vagha, J. (2016). *Effect of Kangaroo Mother Care on Growth and Morbidity Pattern in Low Birth Weight Infants*. *5*(1), 91–99.

Udani, R. H., Hinduja, A. R. A., Suman, R. P. N., & Kabra, N. S. (2014). Role of Kangaroo Mother Care in Preventing Neonatal Morbidity in the Hospital and Community : A review article Role of Kangaroo Mother Care in Preventing Neonatal Morbidity in the Hospital and Community : A review article Abstract : *Journal of Neonatology*, *28*(4), 29–36. https://doi.org/10.16878/gsuilet.436030

Vesel, L., Bergh, A.-M., Kerber, K. J., Valsangkar, B., Mazia, G., Moxon, S. G., … Lawn, J. E. (2015). Kangaroo mother care: a multi-country analysis of health system bottlenecks and potential solutions. *BMC Pregnancy and Childbirth*, *15*(S2), S5. https://doi.org/10.1186/1471-2393-15-S2-S5

WHO | Care of the preterm and low-birth-weight newborn. (2018). *WHO*. Retrieved from https://www.who.int/maternal_child_adolescent/newborns/prematurity/en/

World Health Organization. Reproductive Health and Research. (2003). *Kangaroo mother care : a practical guide.* Dept. of Reproductive Health and Research, World Health Organization.

Yong-chuan Chen, Mei-yu Chang, & Pei-fan Mu. (2015). Fatigue Symptom Management in People Living With Human Immunodeficiency Virus | CE Article | NursingCenter. Retrieved December 6, 2018, from https://www.nursingcenter.com/pdfjournal?AID=3470626&an=01938924-201513090-00012&Journal_ID=3425880&Issue_ID=3470019