PERSPECTIVES OF MALE PARTNERS PARTICIPATION IN KANGAROO MOTHER CARE: A CROSS-SECTIONAL STUDY AT MBAGATHI LEVEL 5 HOSPITAL

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STUDENT'S DECLARATION

I, **Rose Warau Mwangi,** declare that this research project is my original work and has not been presented for any examination in any other institution.

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DEDICATION

I dedicate this work to the Almighty God for his Grace and favor upon my life, to my husbandJohn for moral and financial support, and to my children Jasmine and Reina for the encouragement, and believing in me.

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I thank the Almighty God for the far He has brought me. Sincere gratitude to the following people and organizations; My family for the love and support, the University of Nairobi for the serene environment for my studies, research supervisors Prof. Wagoro and Dr. Kamau for mentorship and immense guidance, Dr. Omuga-Midwifery and Obstetrics Coordinator, for his tireless dedication and guidance to see me excel in academics, post graduate classmates for moral and social support, Mbagathi Hospital management, NBU and Health Records department personnel for sharing relevant information for my study.

God bless you.

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LIST OF ABBREVIATIONS

ERC	Ethics and Research Committee
F-KC	Father Kangaroo Care
KC	Kangaroo care
KMC	Kangaroo Mother Care
KNBS	Kenya National Bureau of Statistics
KNH	Kenyatta National hospital
MCH	Maternal Child Health Clinic
M-KC	Mother Kangaroo Care
MOH	Ministry of Health
MOHK	Ministry of Health Kenya
NBU	New Born Unit
NICU	Neonatal Intensive Care Unit
SPSS	Statistical Package for Social Sciences
UON	University of Nairobi
WHO	World Health Organization

OPERATIONAL DEFINITION OF TERMS

Hemodynamically Stable - It's a state characterized by stable and steady blood flow. The blood pressure and heart rate of an individual are at normal levels.

Intermittent Kangaroo Mother Care - It's recurrent but not continuous skin-to-skin care between the mother/caregiver with each sessionlasting not less than 90 minutes.

Kangaroo Mother Care - It's care of preterm or low-birth-weight infant in continuous and prolonged skin-skin-care contact initiated immediately after birth, with support for exclusive breast feeding or breast-milk feeding.

Kangaroo Position - The infant lies on the caregiver's bare chest in betweenbreasts, in an upright position with the baby's head turned to one side.

Low Birth Weight - Weight at birth of below 2500 grams

Male Partner - A person of the male gender to whom a woman is married or is having a romantic or sexualrelationship.

Participation - It's an act of taking part in an activity

Perspective - Viewpoint from which to observe phenomena

Support - Assistance that parents receive during Kangaroo Mother Care practice. Support by health care workers, hospital management, relatives, friends, and support groups.

ABSTRACT

Background: According to the World Health Organization (WHO), over one million out of nearly fifteen million preterm babies born each year die secondary to prematurity complications globally. Kangaroo Mother Care (KMC) has been recommended as the main intervention for such infants to survive. However, there is low uptake of KMC among men, hence the need to focus on their perspectives towards the practice.

Objective: This study explored perspectives of male partners' participation in Kangaroo Mother Care in Mbagathi Level 5 Hospital.

Methodology: This was a cross-sectional qualitative study involving 9 fathers with preterm and low birth weight neonates admitted in the newborn unit, Mbagathi Hospital. Participants were recruited using purposive sampling method on the basis of data saturation. Data collection was conducted through face-to-face in-depth interviews using an interview guide with the interviews audio-recorded using a Sony ICD PX333 digital voice recorder. Data were transcribed verbatim and were analyzed thematically using NVivo v.11 Software. Ethical principles adhered to during the study included beneficence, non maleficence, autonomy and justice. The study was approved by the KNH-UoN Ethics and Research Committee (Ref: KNH-ERC/A/489).

Results: The participants' support for their babies' receipt of kangaroo mother care emerged as the overarching theme. It was however affected by cultural beliefs (gender roles and fathers' lack of exposure to KMC), weakened socioeconomic status signified through disrupted work and financial constraints and their low knowledge of kangaroo care.

Conclusion: The male partners were in support of the KMC practice. However, their perspectives of participation in KMC were influenced by various factors including cultural beliefs, socioeconomic status and their knowledge of kangaroo care.

Recommendation: The male parents need to be adequately informed and trained about the KMC intervention. Further, they should also be allowed to actively participate in providing kangaroo care for their babies whenever possible.

1.0 CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Every parent goes through pregnancy differently, and a term baby is what is expected upon delivery. Nevertheless, not all parents have their hopes met. The number of preterm births, which currently stands at about 15 million annually, is on the rise. More than one in ten infantshas them. 60% of these preterm births take place in Africa and South Asia, according to the World Health Organization (WHO). In Kenya, there are 32 baby fatalities for every 1,000 livebirths, and there are 21 neonatal deaths for every 1,000 live births. Consequently, the survival of premature newborns is a worldwide concern (*Kenya National Bureau of Statistics*, 2022; Isayama, 2019; Choo et al., 2021).

Preterm and low birth weight newborns are more likely to experience difficulties during birth, including brain damage, hypothermia, hypoglycemia, serious infections, and respiratory distress syndrome (RDS). Furthermore, there is a higher chance of developmental abnormalities, early physical growth retardation, infectious infections, and newborn mortalityin these babies. Preterm delivery difficulties are the main cause of under-five child death globally, according to studies, and are one of the biggest health issues. This is true despite theadvent and widespread use of Kangaroo Mother Care (KMC), which was developed along with technological, scientific, and therapeutic advancements in neonatal intensive care units (*Ministry of Health Kenya*, 2022; Isayama, 2019; Maniago, Almazan, Albougami, 2019).

The significant burden preterm babies place on healthcare systems necessitates the hospitalization of many of them for neonatal care. The World Health Organization (WHO) identified Kangaroo Mother Care (KMC) as one of the best practices for the care of premature and low birth weight infants to lessen these risks. KMC aims to provide infants with high-quality care both in a medical setting and at home. Compared to conventional infant care,the approach encourages parental bonding soon after birth and lowers the risk of neonatal mortality in resource-constrained technology settings (Maniago, Almazan, Albougami 2019; *Ministry of Health Kenya*,

2022).

A preterm or low birth weight baby is cared for using the Kangaroo Mother Care (KMC) method, which involves placing the infant in constant or sporadic skin-to-skin contact with themother or other caregiver. The newborn is dried off and placed on the caregiver's chest unclothed shortly after birth. After that, the neonate is dressed just in a diaper and fastened in place in an upright position with the head turned to the sides. Kangaroo Mother Care should bestarted as soon as possible after birth for preterm and low birth-weight infants who weigh less than 2500 grams at birth. This recommendation comes from the World Health Organization (WHO). In addition, WHO recommends that Kangaroo care should be continued until the premature infant reaches a corrected gestation age of 40 weeks or it attains 2500 grams (Taha & Scott, 2022; Zeng et al., 2022).

Kangaroo Mother Care (KMC), which works to maintain healthy lives and promote wellbeingfor all people of all ages, is essential to fulfilling target number three of the Sustainable Development Goals (SDGs) set forth by the United Nations. The elimination of unnecessary newborn deaths is another goal of Target 3.2, and each nation is aiming to attain a neonatal mortality rate of fewer than 12 per 1,000 live births by Vision 2030. As a result, good KMC implementation can greatly help the achievement of this goal (Glicks M., Williams D.M., 2021; Charpal N., et al., 2020).

In many countries, especially low and middle-income countries (LMICS), Kangaroo Mother Care practice (KMC) has widely been adopted to mitigate preterm and low-birth-weight adverse outcomes. However, despite the uptake of KMC, the burden of neonatal and child morbidity and mortality remains disproportionately high. In addition, despite evidence of Kangaroo Mother Care (KMC) benefits, effectiveness, and low cost, its coverage across the globe has remained low (Cai et al., 2022; Mathias, 2021).

Although Kangaroo Mother Care (KMC) is a very straightforward technique of care, studies have shown that its sustainability and implementation require a team effort from the healthcare system, health professionals, parents, and their families. Studies

on the facilitators and barriers to effective KMC implementation have revealed that the main obstacle is connected to the lack of support for mothers, who are thought of as the primary caregivers. According to the studies, several moms who primarily practiced KMC reported havingunfavorable experiences, like feeling lonely and alone. This isolation was ascribed to spendinga lot of time in bed when practicing KMC and not receiving the necessary help (Kinshela et al., 2021; Sjomar et al., 2023; Gakuna, 2019; Dawar et al., 2019; Sjomar et al., 2023).

According to a study on strategies to reduce neonatal mortality, it has been discovered that, factors that contribute to lack of essential neonatal care (ENC) adoption can be overcome by supporting caregivers, especially the mothers. The study also found that a mother's mental health, sense of self-efficacy, socioeconomic level, and social support system are all factors that affect her capacity and choice to provide crucial neonatal care. Negative newborn outcomes, including decreased breastfeeding initiation and neonatal mortality, as well as lower infant care-seeking behavior and preventive behaviors, have all been linked to maternaldepression. Thus, it is believed that social support acts as a mediator in the connection between a mother's depression and the provision of crucial neonatal care (Choo, Wandika, Udren et al.,2021; *Ministry of Health Kenya*, 2022).

Scientific evidence on the implementation of Kangaroo Mother Care (KMC) indicates that factorsthat promote KMC practice and positively influence the duration of practice are helping the mothers with family responsibilities as well as family members assisting in performing KMC when mothers experience challenges (Gunay & Coskun, 2020; Gunay & Simsek, 2020; Dipnur et al.,2022; Torres et al, 2020).

Research studies have recommended that, when it’s challenging for mothers to provide Kangaroo Mother Care, fathers become the most appropriate replacement candidates since they are also the main caregivers. In addition, it has been discovered that the benefits of Kangaroo Care to fathers practicing Kangaroo Care include an opportunity to gain skills in caregiving, and connection with the baby which strengthens infant –the father bond. Further, it has been revealed that fathers to preterm or low birth weight infants admitted to the neonatal intensive care unit

(NICU) experience stress which can adversely affect their mental health, and are at risk of developing anxiety and depression. To overcome this, numerous studies have revealed that the provision of kangaroo care can effectively reduce a father's stress level (Zeng et al., 2022a; Dond, Steen & Wepa, 2022).

According to a study on experiences of fathers practicing kangaroo Care, it was revealed that the non-initial involvement of fathers by health workers in the practice of Kangaroo care makes them feel 'left out' and 'powerless' in the provision of such care, which make them often to feel stressed. Further studies have revealed that fathers who practiced Kangaroo care for their preterm or low birth weight infants felt a sense of fatherhood and developed an emotional attachment with their babies. In addition, through kangaroo care, fathers ceased being strangers watching their babies from afar. These findings indicate that the participation of fathers in providing Kangaroo Care is of paramount importance to the entire family (Gunay & Coskun, 2020; Dipnur et al., 2022 ; Torres et al., 2020).

1.2. Statement of the Problem

According to the World Health Organization, the prevalence of premature births has increased globally in recent years. Out of the almost 15 million preterm babies born each year around the world, more than 1 million succumb to complications related to their prematurity. According to statistics, 35% of all neonatal deaths worldwide are due to direct complications of prematurity, with the percentage of deaths due to indirect effects, such as infections, being even higher. Preterm birth is a serious health concern as a result. Numerous studies have linked these to the absence of the necessary personnel and infrastructure, such as incubators, to provide crucial neonatal care. Kangaroo Mother Care has been identified as an effective, evidence-based, life-saving intervention for preterm babies. However, its effective implementation has been hindered by a lack of support from family members, a lack of parental information, and inadequate resources (Ariff Shabina et al. 2022; Cao G., Liu J., Liu M. 2022).

According to studies, Kenya's neonatal mortality rate is greater than the 18/1000 live births global average. Infants born to mothers who live in poverty and rural locations

are more likely to die than other infants. Prematurity (24.6%), newborn infection (15.8%), and birth asphyxia (31.6%) have been identified as the main causes of these fatalities. The World Health Organization (WHO) has identified Kangaroo Mother Care as a successful evidence-based intervention to lower newborn morbidity and mortality as a means of addressing these issues. Additionally, it has been suggested that for Kangaroo Mother Care (KMC) results to have the greatest impact, there must be excellent coordination between healthcare systems, healthcare providers, and family members (Mitchell et al., 2021; Padmanaban et al., 2021; Choo, Wandika, Udren, et al., 2021).

At Mbagathi Hospital, the number of infants initiated on Kangaroo Mother Care (KMC) is approximately 22 babies per month (MoH 373). According to the hospital documents, the sole caregivers during the entire hospital stay were mothers to the infants. The challenge arises in the provision of this care when mothers are not able to initiate or maintain effective KMC due to pregnancy and delivery-related complications such as surgical site pain, and infections, among others. This contributes to a significant number of neonates who are eligible for KMC being nursed in the incubators and the cots, thus they don't get the numerous benefits of KMC for better growth and development.

Lack of or ineffective provision of Kangaroo Mother Care to preterm and low birth weight infants results in delayed early hospital discharge, which is inappropriate management of preterm and low birth weight infants, contrary to World Health Organization (WHO) recommendations that advocate for early hospital discharge. This leads to congestion in the Kangaroo Mother Care ward predisposing the vulnerable infants to healthcare-associated infections (HAI), and eventually causing direct constraints to already limited resources. These findings prompted the author's quest to explore why fathers with preterm/low birth weight infants at Mbagathi Hospital did not assist in the provision of Kangaroo care, especially when mothers were not able to, thus the basis of this study.

1.3 Research Questions

a) What are the perspectives of male partners' participation in Kangaroo Mother Care at Mbagathi level 5 Hospital?

b) What effect do cultural beliefs, socioeconomic status, and knowledge of Kangaroo Mother Care have on perspectives of male partners' participation in Kangaroo Mother Care at Mbagathi level 5 Hospital?

1.4 Research Objectives

1.4.1 Broad Objective

To explore perspectives of male partners participation in Kangaroo Mother Care at Mbagathi Level 5 Hospital

1.4.2 Specific Objectives

a) To determine how cultural beliefs affect the perspectives of male partners participation in Kangaroo Mother Care

b) To determine how socioeconomic status affect the perspectives of male partners participation in Kangaroo Mother Care.

c) To assess how knowledge of Kangaroo Mother Care affect perspectives of malepartners participation in Kangaroo Mother Care

1.5 Justification of the Study

When correctly executed, Kangaroo Mother Care (KMC) is a technique of care that is linked to a notable decrease in infant morbidity and mortality. Although Kangaroo Mother Care (KMC) is a very straightforward type of child care, its application is physically and mentally taxing because it necessitates more than twenty hours of skin-to-skin contact between the child and the caregiver. Additionally, the caregivers' separation from their family members while inthe hospital adds to their loneliness and sense of isolation. Therefore, for Kangaroo Mother Care (KMC) to be implemented

and sustained, it is crucial for family members, particularly fathers who are also the primary carers, to support moms who, according to several studies, are typically the only caregivers (Gunay, Coskun, 2020; Gakuna 2019; Dawar et al., 2019).

In Kenya, despite rigorous efforts by health workers through the Ministry of Health to sensitize clients and the Community on the benefits of Kangaroo Mother Care (KMC), studies show that its successful implementation has not been fully achieved (Towet, Whitford, Towett, 2022; Makokha, 2022).

The study can aid in the creation of policies that take fathers' perspectives into account while providing care, and it may even persuade decision-makers to rename the program from Kangaroo Mother Care to Kangaroo Care, allowing other people to provide care without bias.

1.6 Significance of the Study

Providing quality Kangaroo Mother Care is a strategy that ensures improved outcomes for preterm and low birth weight babies. Data about fathers participating in Kangaroo Care was not very well known. The study explored perspectives of male partners participation in Kangaroo Mother Care, as their participation can bridge the gap where infants don't benefit from early initiation of Kangaroo Mother Care due to maternal instability. The findings can contribute to policy development and evidence-based strategies for effective and efficient implementation of Kangaroo Mother Care.

2.0 CHAPTER TWO: LITERATURE REVIEW

2.1 Overview of Kangaroo Mother Care

In order to improve the outcomes of high risk preterm and low birth weight infants, Kangaroo Mother Care (KMC), a straightforward intervention of care, is widely regarded as being highly successful. It entails early, ongoing, and extended skin-to-skin contact between a caregiver and the baby, both inside the medical institution and at home after discharge, for at least the first 40 weeks after the baby's last period or until the baby weighs 2500 grams. Regular and exclusive breastfeeding, early hospital discharge, follow-up care, and efficient KMC support are further KMC components (Koreti & Gharde, 2022; Ministry of Health Kenya, 2022).

Kangaroo Mother Care (KMC) is commonly provided by the mothers, however, other family members and relatives such as father, grandmother, aunts and older siblings can provide KMC. This method of care enables parents to participate in care of their infants which relieves stress and reduces anxiety unlike when the baby is in the incubator, and promotes connectivity between the infant and the parents thus strengthening the bond between the clad (Gakuna, 2019; *Ministry of Health Kenya*, 2022).

No matter the gestational age, newborns with low birth weight are more likely than full-term infants to experience impaired brain development. In addition, numerous studies have demonstrated that preterm infants are more likely than their full-term counterparts to experience psychiatric conditions like autism, motor and sensory abnormalities, developmental delays, and subpar academic performance. These conditions include attention deficit hyperactivity disorder (ADHD), autism, motor and sensory abnormalities, and developmental delays. The identification of early, preterm, and low birth weight newborns is therefore of utmost importance for healthcare professionals and parents so that prompt interventions can be carried out (Chung et al., 2020; Gakuna, 2019).

2.1 History of Kangaroo Mother Care

The concept of Kangaroo Mother Care (KMC) started in early 1970's in Ohio, USA, when researchers were investigating about the effect of "Extra Contact" between mothers and their newborn infants immediately after birth. The "Extra Contact" is involved in holding a newborn baby on an upright position, skin to skin on the mother's bare chest as early as possible following birth. In mid-1970 in Bogota, Colombia, Dr. Edgar Ray and Dr. Hector Martinez started investigating about the same method of care. They were looking for a solution following70% mortality rate of preterm infants under their care. They named this method of care as "Kangaroo Care" to reflect how marsupial kangaroo carry their preterm offspring on their pouch providing them with warm and being breastfed exclusively until they are old enough and mature to feed for themselves outside their mother's pouch (Gakuna, 2019 ; Raouth, Kostandy & Ludington-Hoe, 2019).

In 1978, Edgar and Hector oversaw the implementation of Kangaroo Care in Bogota, Colombia. Following close monitoring and realization of the effects of Kangaroo Care in the neonates, they developed the name "Kangaroo Mother Care". Thereafter, numerous scientific studies across the globe have led to discovery of many benefits of KMC to both mother or caregiver and the infant. In Africa, Kangaroo Mother Care was first introduced in Ethiopia in 1996, while in Kenya it was innovated in 2014, to curb increased cases of neonatal mortality and morbidity (Raouth, Kostandy & Ludington-Hoe, 2019; Anggeriyane, Nooorhasanah & Nurhayati, 2021; Mohamed T. A., 2019).

Gakuna (2019), Hailegebriel et al. (2021) states that, implementation of KMC in the world is specific to multifaceted challenges experienced by individual countries. For example, implementation of KMC in developed countries is to complement easily accessible incubatorswhile in developing countries policies are being made to scale up KMC practice.

2.2 Elements of Kangaroo Mother Care

Position, nutrition, discharge with proper assistance and follow-up, and a supportive

atmosphere both inside and outside of the medical facility are the main components of KMC. These components are equally significant and ought to be used in KMC practice (*Ministry of Health Kenya*, 2022; Gakuna, 2019).

2.2.1 Kangaroo Mother Care Position

KMC involves early, continuous, and prolonged skin to skin contact between the mother or caregiver and the baby, up to 24 hours in a day. The baby lies in an upright position on the caregiver's bare chest, in between the breasts and secured in position with linen under the caregivers' clothes. The baby's head is turned on one side in a sniffing position, hips in flog like position and arms flexed. Studies has proven that, in this position, babies are able to achieve early initiation of breastfeeding hence rapid weight gain (Mohamed, 2019; Charpak et al., 2020).

The caregiver acts as an incubator by regulating the infant's temperature. He /she also act as the main source of food and stimulation. If the mother is the caregiver, baby can breastfeed ondemand, if other caregivers, the baby is fed frequently on expressed breast milk with a nasogastric tube or via cup. When sleeping, the caregiver must maintain a semi-Fowler's position to ensure the baby is maintained in upright position. Apart from thermal control and nutrition, this position has been proved to provide psychological stability for the parents and the infant. The practice of Kangaroo Mother Care should begin immediately after birth, following drying of the baby and should continue in postnatal ward or neonatal unit, including neonatal intensive care unit if need be, and continue at home after discharge until when the baby cannot tolerate it anymore (Charpak et al., 2020; Taha & Scott, 2022).

2.2.2 Nutrition

All newborn babies should be breast feed exclusively for six months. However, studies indicate that, for preterm babies who are too weak to breast feed or neurologically underdeveloped, they should be feed with expressed breast milk (EBM) via cup or through nasogastric tube until they are able to suckle satisfactory. Further, Kangaroo position facilitates early breast attachment and breastfeeding for babies in consistent or intermittent KMC, unlike their counterparts who are nursed in the cot or incubator.

The goal is to achieve optimal weight gain of approximately 15-20g/Kg/day until 37 weeks, then 8-11g/kg/day until 40 weeks of gestation age. If the infant is fed adequately but not able to gain weight as expected, then expressed breast milk or preterm formula milk is fortified (Charpak et al., 2020; *Ministry of Health Kenya*, 2022; Mohamed, 2019).

2.2.3 Kangaroo Mother Care Support

Effective implementation of Kangaroo Mother Care (KMC) is dependent on supportive environment both in the hospital and at home. Various studies have indicated that, lack of support is a barrier for effective implementation of KMC, while support from health workers, family, friends and support group is a facilitator to implementation of KMC. While KMC is practiced by mothers most of the time, studies recommend that, when mothers are experiencing challenges for example painful episiotomies, exhaustion and depression, KMC should be initiated or continued by other family members. In such cases, fathers' involvement and family support makes a great difference (*Ministry of Health Kenya, 2022*; Mohamed, 2019).

According to scientific data, KMC practice is facilitated by both emotional support and assistance with domestic duties. Health professionals should also provide physical and psychological support to families with preterm or LBWT infants until they feel confident using KMC with little guidance. With extra health promotion messages regarding the advantages of KMC and the significance of supporting women with preterm and LBWT infants, various educational approaches should be used to inform parents and other family members about their roles in KMC (Cai & Chen et al., 2022; Mohamed, 2019).

2.2.4 Kangaroo Mother Care Discharge and Follow up

Provided that KMC is continued at home, early discharge is a pertinent KMC component. When a baby receiving Kangaroo Mother Care has consistently gained 15g/kg/day of weight for three straight days and is physiologically stable, the baby should be released from the hospital. In a same vein, caregivers must be prepared to be released, confident in their ability to continue KMC at home, able to breastfeed or

administer extracted breast milk using a cup, and supported by their families (Mohamed, 2019; Kwesiga & Wanduru et al., 2022).

According to Charpak et al. (2020); Mohamed (2019), preterm or low birth weight infants should be discharged from hospital regardless of their weight or gestation age, however, they must have successful adapted to extra-uterine life, are thriving in neutral thermal environment, and has successfully adapted to kangaroo mother care being provided. Once at home, KMC should be continued until the baby doesn't want it anymore and have reached 38 weeks gestational age. After discharge, infants are monitored on daily basis by health workers until they recover their birth weight and at least daily weight gain of 15-20g/kg/day. Thereafter, weekly visits to health facility for close monitoring are made up until the infant reaches 40 weeks of gestation age.

Following a study on improving post-discharge practice of Kangaroo Mother Care in Uganda, recommendations were made that, babies on KMC should be followed up by health workers as it's an enabler to ensure continuity of KMC at home. In addition to home visits, it was suggested that health workers should make follow-up phone calls to parents to inquire about the progress (Kwesiga & Wanduru et al., 2022; Jamali & Shah, 2019).

2.3 Benefits of Kangaroo Mother Care

Baby, parents, and the medical facility can all benefit in many ways from KMC practice. In terms of safety, affordability, thermal regulation, neurological development, and beyondsurvival benefits lasting more than 20 years, research studies and experience have shown that KMC is comparable to, if not superior to, incubator care. Continuous skin-to-skin contact must begin as soon as possible after birth, with the goal of maintaining it for at least 20 hours each day, in order for KMC to be effective. It helps and encourages early and sole breast feeding. KMC offers the baby the chance to learn how to connect and eventually feed in the case that the newborn is too little to do so (Adejuyigbe et al., 2020; Ministry of Health Kenya, 2022).

Several systematic studies have demonstrated that, when KMC is implemented consistently and effectively, it results in significantly lower risk of death for preterm

and low birth weight babies. Other notable benefits of KMC include reduced risk of infections, re-admissions, and significant weight gain. Further, more benefits of KMC include, reduced neonatal mortality and morbidity, encourages maternal/paternal and infant bonding rather than the conventional incubator care where the baby is separated from the parents, and it has shown to improve oxygen saturations and other vital physiological parameters KMC benefits to the parents including, improved confidence in caring for the infant, improved bond between the parent andthe baby due to physical closeness between them, actively involved in care of their infant and becomes the primary caregivers, improved lactation and breast feeding for the mother, and reduces anxiety and depression (Obumneme & Olapeju et al., 2020; *Ministry of Health Kenya*, 2022).

Health facility benefits include, significant cost saving and also less dependence to incubator care, no additional nursing staff are required (in comparison to incubator care), improved quality of care, and improved survival and patient outcomes In addition to cost effectiveness, it's convenient as it does not require sophisticated equipment, and can be provided in settings with limited resources because no electricity or technology is required (Koreti & Gharde, 2022; *Ministry of Health Kenya*, 2022).

The need to care for other children at home, the loss of productivity by mothers who are the sole or joint breadwinners, and the requirement that they cohabit with their husbands who playa key role in family decision-making are just a few examples of the negative cultural situations that sometimes lead to the discharge of stable low birth weight babies against medical advice.Therefore, on these circumstances, KMC can be beneficial for early discharge of small babies who are clinically stable. At home, mothers can minimally be useful while carrying the babiesin Kangaroo position. The most important resources for KMC therefore, are caregivers, trained and skilled personnel to initiate and manage baby in KMC, and a supportive environment (Obumneme & Olapeju et al., 2020; Koreti & Gharde, 2022).

2.4 Practice of Kangaroo Mother Care

Studies indicate that, many men are often left out during conversation about preterm babies and KMC. According to a study on KMC among fathers who had low birth weight or pretermbabies, it was revealed that, majority of fathers had no knowledge on KMC or how to best care for these infants. In addition, some women expressed their uncertainty to request their partners to assist them with KMC fearing to break social norms date (Lewis & Andrew, et al. 2019; Megan & Lydon et al., 2022).

In China, preterm births are estimated to be 7.3%. Out of these, over 50% are reported as neonatal deaths among children under 5 years of age, where the leading cause of these deaths is as a result of prematurity complications. To curb these phenomena, among other measures, Kangaroo mother care was introduced. However, inadequate space and human resource constrains has contributed to practice of intermittent rather than continuous KMC in hospitals. Following a study on barriers of Kangaroo Mother Care in China, barriers included: cultural factors such as traditional post-partum confinement practice, parental-level barrier to KMC such as anxiety, hospital factors such as fear of nosocomial infections, inadequate staff and space, and financial barriers which includes lodging costs for caregivers and costs of hospital supplies. In addition, parents who participated in the survey confessed that, lack of private space in the hospital to perform KMC for both mothers and fathers was a major hindrance (Williams et al., 2020; Dipnur et al., 2022).

In America, Kangaroo Mother Care has been embraced and is highly valuable across all hospitals in United States. However, some barriers which inhibit KMC practice in these setting include: costly accommodation, unreliable transportation to and from the hospital, lack of child care for other siblings, inadequate maternity leave policies and parental ability to provide care. A study on whether fathers can also do Kangaroo care revealed that there is no difference in Mother Kangaroo Care (M-KC) and father Kangaroo care (F-KC). As a result, a recommendation was made to health care professionals to encourage active participation of fathers in kangaroo care (Yaman et al., 2022; Lewis & Andrews et al., 2019).

In Malawi, fathers to preterm or LBWT babies described their involvement in Kangaroo Mother Care by providing material goods for their wives and newborns, including baby clothes, wrappers and food. Upon further probing, they confessed that they physically participated in KMC especially at night, in their homes. They described the role of Kangaroo Care as fulfilling and that they felt closer to their babies. However, they confessed on the conflict between the need to practice KMC and need to work to provide for their families (Megan, et al., 2022; Snyder 2019; Linnenluecke 2019).

According to research, many men in Ethiopia believe that moms should be the ones to take care of the children. The decision-making of women regarding the continuation of KMC practice in the hospital is unpredictable and influenced by this social norm. This suggests that fathers' ability to make decisions, provided they are positive about them, can either help or hinder KMC practice. Studies carried out in various middle-income and low-income nations revealed that fathers may look for cultural support to help their partners, even if it means givingskin-to-skin care to their partners themselves. As a result, it's critical to involve fathers in KMC counseling sessions to encourage excellent judgment and support (Bilal & Tadele et al., 2021; Oreti & Gharde, 2022).

A study conducted at Kenyatta National Hospital (KNH) on the experiences of parents on Kangaroo mother care revealed that a handful of male partners who partially participated Kangaroo Mother Care termed the experience as rewarding in terms of strengthening child father bond in contrast to African tradition where fathers were feared by their children may be because they never had adequate time to bond with their children (Mitchell, Pallotti et al., 2021). However, greater focus is required on facets including inadequate spaces available for practicing of KMC; developmental needs of the infants and emotional needs of their parents (Abuya, Charlotte & Warren et al, 2022).

2.5 Knowledge about Kangaroo Mother Care

Historically, mothers are considered as the sole care provider for Kangaroo Mother Care (KMC), but, due to socio-economic changes, father’s involvement in child care

has greatly increased in the recent past. However, various studies on Kangaroo Mother Care have revealed that many fathers, who are potential care givers to KMC, are unaware that they too can provide Kangaroo Care. According to a study on Mother' perception on why their partners don't practice KMC, they stated that their partners do not participate in Kangaroo care because of low awareness and lack of information about their direct benefits of KMC to their newborn. Further they said that, most of their male partners does not practice KMC because nobody explained or demonstrated practice of KMC to them (Dipnur et al., 2022; Abagirimana, 2022). Studies have indicated that, to improve uptake of Kangaroo Mother Care, enhancing Knowledge about Kangaroo Mother Care is an important strategy that requires to be addressed. In addition, KMC is likely to be initiated when both parents have a good understanding of its efficacy and benefits to the family unit. From experience of fathers, Kangaroo Care by fathershas obvious advantages thus its necessary to create more awareness by training health professionals, developing a way to sensitize kangaroo Father Care outside the hospital and creating space in health facilities to accommodate (Gill, Helen & Liley et al., 2020; Zeng et al., 2022b).

2.6 Institution Factors Influencing Kangaroo Mother Care

Institutional factors that facilitate effective Kangaroo Mother Care (KMC) are comprised of facility conditions, health care system, resources and materials. According to *Ministry of Health Kenya* (2022), for KMC services to be established in a health facility, it involves organization of services which include provision of suitable space in the newborn unit, essential equipment and supplies for mothers/ caregivers and babies, staffing and capacity building of health providers.

KMC does not require special facilities, what is required is reorganization of newborn unit to make the mother's /caregivers more comfortable. This includes sufficient space to accommodate enough beds, side cupboards and chairs depending on the workload. No additional staffs are required at the health facility. It's recommended that, the existing staff in the newborn unit should have adequate training in all aspects of Kangaroo Mother Care; KMCward should be managed as part of the Newborn unit. The basic complement staff required for KMC should include the clinicians, nurses

and nutritionists. For capacity building requirements, staff should be updated through training, mentorship and supervision. States that lack of privacy and insufficient supplies hinders the implementation of KMC. Also, temperature stability, quiet and relaxed environment in health facilities is conducive for effective implementation of KMC. In addition, KMC guidelines and protocols are essential in enhancing its implementation (*Ministry of Health Kenya,* 2022; Cai & Chen et al., 2022).

According to Gill, Helen & Liley et al., (2020); Bilal & Tadele et al. (2021), in initiating, supporting and sustaining the practice of Kangaroo Mother Care (KMC), healthcare professionals play a significant role by sharing knowledge on KMC with parents and families of preterm or low birth weight babies. A study on barriers of Kangaroo Mother care acceptance and practices stated that, mothers /caregivers to preterm or low birth weight infants are less likely to accept KMC if healthcare workers could not clearly explain its benefits. It's therefore crucial for health care facilities to ensure that healthcare professionals are familiar with benefits and practice of KMC, and they can effectively communicate and coach families in a way that is kind, compassionate, empathic and respective.

Recommendations from various studies have been made on the importance of integrating KMC training into continuous professional education and ensuring high-quality ongoing KMC training. Supportive healthcare system is considered an enabler to effective implementation of KMC practice. Factors that ensure a good healthcare supportive system include developing policies and guidelines that reframe KMC as an essential, evidence-based practice, adequate staffing and visitation time, adequate space and resources suitable for KMC, support from departmental, institutional and broader organizational leadership, and sufficient funding of KMC services (Gill & Liley et al., 2020; Bilal & Tadele et al., 2021).

2.7 Cultural factors Influencing Kangaroo Mother Care

A nation, a community, or other specific groups of people may share a set of ideas, moral principles, customs, languages, and laws (or codes of conduct), which collectively make up cultural aspects. The perceptions of preterm newborns and KMC

are influenced by various religions, cultures, and traditional beliefs found all throughout the world. Skin-to-skin contact between the child and the person caring for him or her is frowned upon in many cultures, as is carrying babies on one's chest rather than their backs (Cai & Chen, et al., 2022; Jamali & Shah, 2019).

The approval and support of the community are substantially correlated with KMC practice by moms and childcare providers. Support from the baby's father and grandparents are a crucial factor. For instance, the willingness and dedication of dads and spouses to support KMC maybe influenced by a number of variables, such as male sex preference and the number of children currently living at home. Their acceptance and practice are adversely affected if the newborn is a girl or if they believe they have a certain number of children, and the opposite is also true. Additionally, there is gender imbalance in the duties of a mother and a father, which makes it difficult to apply KMC (Bilal & Tadele et al., 2021).

According to Bilal & Tadele et al. (2021), the fathers' role is termed as that of a provider, while mother's role is caring for their children, thus men are not allowed to participate in KMC. A study on barriers to uptake of Kangaroo Mother Care revealed that, community misconceptionsand poor awareness of causes, outcomes, and survival of preterm or low birth weight infants are common factors towards uptake and practice of KMC. Moreover, participants of the study expressed that these challenges are as a result of community's lack of exposure and experience with Kangaroo Mother Care. Quian Cai, Dan- i Chen, et al. (2022), discovered that, in some communities, parents to preterm babies are ridiculed which leads to stigma. Stigma towards premature birth creates anxiety and feeling of guilt to parents, which cause them to abandon their babies. This contributes to barriers in the implementation of KMC.

Implementing KMC may be hampered by cultural customs that are incompatible with its earlyinception. For instance, bathing a newborn infant immediately after birth is a normal practice in some communities; this delays skin-to-skin contact within 24 hours, which is essential for the application of KMC. Another study on the obstacles to and facilitators of Kangaroo Mother Care found that it is traditionally expected of women in many nations to care for the home as well as their newborns. Because they

spend so much time caring for their infants, they are frightened of being made fun of (Jamali & Shah, 2019, Gill, Liley, et al., 2020).

2.8 Socio-Demographic Characteristics Influencing Kangaroo Mother Care

The results of a study assessing postpartum mothers of preterm LBW infants' knowledge, attitudes, and practices with kangaroo mother care (KMC) revealed that the participants had a high level of awareness and knowledge about KMC. This study was conducted in an urban tertiary care center that was designated as a center of excellence for KMC, where 60% of the mothers declared their source of information on KMC to be the Internet. These findings may be attributed to several demographic characteristics of the participants, including the majorityof respondents being married in the age range of 31 to 40 years, 80% having prior knowledge of KMC, over 80% having attended school with over 50% being graduates, and the study being conducted in an urban setting (Olawuyi & Ezenwa et al., 2021; Gill, Liley, et al., 2020).

In a different study, it was discovered that in several nations, gender and family support were crucial to the consistency and adherence of KMC practice. The effectiveness of KMC was hampered by moms who struggled with family support and had to uphold gender roles since they did not practice KMC constantly. Additionally, it was thought that KMC was hampered by unemployment since some parents believed that KMC was expensive because it required a lengthy hospital stay and additional resources. According to a study on the knowledge and practice of KMC, postpartum women with college degrees and higher levels of education knewsix times more about KMC than women who could not read or write. This may be explained by the fact that, as one advances in their education, they gain a better understanding of the precise nature of the things they hear and see. The study also showed a strong relationship between residency and knowledge of KMC, with moms of preterm and low birth infants living in urban regions having 3.6 more knowledge than those in rural areas (Getie, et al., 2022; Mathias, et al., 2020).

2.9 Male Partner participation in Kangaroo Care

Male partners should actively participate in maternal health care, according to

Reproductive and Child Health (RHC) policies and guidelines. Male participation in prenatal care not only helps to ensure that both the mother and the baby receive the proper care on time, but it also makes it easier to provide adequate and efficient care. A study on the barriers and facilitators to the implementation of kangaroo mother care in Sub-Saharan countries found that family support, including the practice's endorsement by fathers and husbands, is one of the facilitators for efficient implementation Mapunda, August, Makawanga, et al. (2019); Kinshella, Hiwa, Pickerill, et al. (2021); Zeng, Li, Wu, et al. (2022).

In order to address men's requirements for supporting women's health and hence promote family health, it is imperative to identify the elements that influence male engagement in maternal health care. According to studies, barriers to male participation in maternal and child health care include erroneous gender roles, unwelcoming hospital structures, anxiety over HIV testing, a perception that the healthcare system is inefficient, and lost wages and time while waiting for services. Other obstacles include a lack of knowledge among parents of infants who are preterm or low birth weight about Kangaroo Mother Care (KMC), cultural and structural factors, socioeconomic factors, community beliefs and values regarding preterm and low birth weight infants, the acceptance of KMC by healthcare professionals, and a lack of supplies in healthcare facilities (Mapunda, August, Makawanga, et al. 2019); Bilal, Tadele, Abebo et al.,2021).

2.10 Theoretical Framework

A theory is a set of concepts and their relationships that enables understanding of a phenomenon. Theoretical framework is a structure that explains a theory (s) which supports the research study, indicating that the research study is grounded in established ideas. It provides the rationale for conducting a research to investigate a particular research problem (Kivunja, 2018; Schlegel & Fornali, 2020).

This study will be guided by theory of planned behavior. The theory was developed in 1991 by Icek Ajzen in an attempt to predict human behavior. The theory assumes that peoples' primary intention of behavior is reasoning, which is predicted by attitude. The

attitude is shaped by subjective norms, beliefs and situational factors. The feeling of control over a situation or lackof knowledge about it, predicts a behavior. The theory comprises of three concepts which includes behavioral intentions, attitudes towards the behavior and the subjective norm (BosnjakM., Ajzen I., Schmidt P. 2020; Hagger M. S. 2019).

Behavioral intentions state that, the stronger the intention to engage in a certain behavior, the more likely an individual will perform the behavior. Attitude is formed in response to firmly held beliefs. It plays a crucial role in determining human behavior and is associated with whatpeople think and do. Subjective norm is a social pressure to perform or not perform a given behavior. In addition to the three concepts, perceived behavior control also plays a key role andit refers to people's perception of the ease or difficulty of performing the behavior of interest (Bosnjak M., Ajzen I., Schmidt P. 2020; Hagger M. S. 2019; Hagger M.S., 2022).

2.10.1 Application of Theory to the Study

The concepts of planned behavior theory relate well with the concepts in this study which includes knowledge about Kangaroo Mother Care, cultural beliefs, institution factors, and social economic status of male partners whose preterm babies are admitted in the newborn unit. These concepts are likely to influence perspectives of men towards participating in Kangaroo Mother Care, hence determining their behavior towards the practice.

Health education on Kangaroo Mother Care (KMC), its importance and benefits, empowers parents to make informed decision on whether to practice Kangaroo Mother Care for their neonates or not. Cultural beliefs such as role of men in child care are considered to influencesparent's perspectives towards engaging in activities that supports growth and development of the infants. Presence of factors such as experiences of interaction with health workers will facilitate or impede performance of the tasks being advocated. The attitude of health workers towards supporting men in provision of Kangaroo Care plays a major role in influencing the behavior of a potential caregiver. In addition, availability of facilities such as separate rooms where

men and women practice KMC in the health facilities ensures privacy, and can greatly influence men's behavior towards practicing Kangaroo Mother Care.

2.11 Conceptual Framework

A Conceptual Framework is a written or visual representation of the relationship between the variables of a research question. It outlines what is expected to find in a research project (Paradis et al., 2019; Fahan, 2021). The independent variables for this study include knowledge about Kangaroo Mother Care (KMC), cultural beliefs, socioeconomic status, and institution factors. Dependent variable is practice of Kangaroo Mother Care by male partners. The expected outcome is improved neonatal outcome.

Literature review on Kangaroo Mother Care (KMC) reveals that, knowledge about KMC greatly influences uptake of KMC by the care providers. Therefore, empowering male partners by health educating them about the importance of Kangaroo Mother Care (KMC) may positively impact their perspectives on practicing KMC for improved outcome of their babies. Consequently, by identifying negative cultural beliefs about KMC, and demystifying them, male partners may be encouraged to practice KMC. Further, institution factors play a major role in improving neonate's outcome. For example, provision of a room where men can practice KMC, separate from women, will ensure privacy which will encourage them to practice KMC. Social economic factors such as nature of job for example casual laborer may hinder practice of KMC. To bridge the gap, intermittent KMC can be practiced thus allowing the mothers to rest from long hours of providing KMC.

3.0 CHAPTER THREE: METHODOLOGY

3.1 Study Design

A cross-sectional study design was used. This is a type of research design where data about current beliefs, opinions, and attitudes is collected at one point in time. The design helped to discover more information on the area under study since little was known about male partners' participation in Kangaroo Mother Care. The investigator chose this study design because it had the advantage of measuring current attitudes and practices and also allowed data collection in a short duration of time which is in line with the time allocated to the investigator to carry out the research project (Bloomfield & Fisher, 2019; Wang & Cheng, 2020; Neubauer, Witkop & Varpio, 2019).

3.2 Study Area

The study was conducted in Mbagathi Hospital in the newborn unit, Kangaroo Mother Care Ward (KMC). Mbagathi Hospital is the main public and referral hospital for Nairobi County serving a wide geographical area and a densely populated catchment area from both formal andinformal settlements. It is located 500 meters off Mbagathi - way next to Armed Forces Memorial Hospital. In addition, the investigator has chosen this facility because she works at Mbagathi Hospital therefore conversant with the study site and its policies, thus saving time that would have been used for orientation to data collection.

According to the hospital records, the hospital serves a population of approximately 3.1 million. It offers both inpatient and outpatient services. The newborn unit has 16 baby cots and 15 incubators, while the Kangaroo Mother Care (KMC) ward has 18 beds. The newborn unit has a total of 16 nurses, 1 nutritionist, 3 medical officers, and 1 pediatrician.

With a bed capacity of 388 beds, congestion has continually been experienced for several years owing to the increased number of referral cases. In the newborn unit, occasionally babies share cots and incubators, while mothers in postnatal and KMC

wards are required to also share beds due to the increased number of patients. This predisposes vulnerable infants and their caregivers to nosocomial infections and also, it's psychologically disturbing to the caregivers. Therefore, effective implementation of KMC plays a vital role in ensuring neonates receive quality care and also discharged early to decongest the facility, creating adequate space for critically ill neonates requiring intensive medical/surgical interventions.

3.3 Study Population

The study population was males whose female partners and their preterm and low birth weight babies were admitted to the Kangaroo Mother Care (KMC) unit at Mbagathi Hospital. The participants were identified soon after admission and those who were not present during admission were identified during hospital visits made to their loved ones.

3.4 Sample Size Determination

Sample size was determined by saturation of data according to Glauser and Strauss (1967). Data saturation refers to a point where all data relevant to the study has been collected and there is no new relevant information being gathered from the participants or the respondents. It signifies that the researcher has to stop collecting more data for the study. Sampling of participants was done until saturation was achieved and ceased when no more new information and data was gathered. The investigator recruited nine participants from the targeted population based on the criterion of theoretical saturation that recommended 9-17 interviews. This criterion implied that saturation of data occurred when all constructs of the theory were fully represented by the data. (Hennink M., Kaiser B. N., 2022; Kumar et al., 2020; Mwita, 2022; Guest G., Namey E., Chen M., 2020).

3.5 Sampling Technique

The investigator utilized purposive sampling to identify the study participants. The investigator informed the departmental manager and ward in charge about the study and explained the title, objectives and the methodology to be used in data collection

and analysis. Permissionto carry out the study in the ward was sought from them. The data was collected from participants who met inclusion criteria until saturation was achieved.

Purposive sampling is a non-probability sampling where each participant is selected based on the characteristics of the population and study objectives. This method was appropriate because the participants could provide in-depth information needed to achieve the aims of the study. The researcher used sound judgment to select specific participants that assisted in meeting the study goals (Bhardwaj, 2019; Mweshi, Sakyi, 2020).

3.6 Inclusion-Exclusion Criteria

3.6.1 Inclusion Criteria

a) Fathers whose infants had been initiated on Kangaroo Mother Care

b) Fathers who gave written informed consent to participate in the study

3.6.2 Exclusion Criteria

a) Fathers whose infants had been initiated on Kangaroo Mother Care but were hemodynamically unstable during data collection time

b) Fathers whose infants had been initiated on Kangaroo mother Care but required close monitoring by health care providers i.e. neonates born of diabetic mothers

c) Fathers who failed to give written informed consent

3.7 Recruitment Process

Upon approval by the ethics and research committee and Mbagathi Hospital's Medical Superintendent, the investigator visited the New Born Unit at 1:00 p.m. and 4:00 p.m. These were the designated visiting hours by the hospital thereby the investigator was anticipating to meet prospective participants at the bedside. The

investigator introduced herself to the ward manager and other health professionals, and explained briefly about the study. Potential participants were identified by the use of the KMC register. The investigator then met the prospective participants and their spouses, introduced herself and explained the intention and plan to carry out the study. Willing participants were asked when it was convenient for them to be interviewed. The investigator scheduled interviews depending on the preferred dates and time, and also got their mobile phone contacts for effective planning and timely execution of scheduled interviews.

3.8 Data Collection Tools and Procedure

3.8.1 Data Collection Tools

Data was collected through in-depth interviews using an interview guide (Appendix IV) adopted from (Bilal, 2021), and a tape recorder.

In-depth Interview guide

An in-depth interview is a flexible qualitative research technique used by researchers to conduct detailed interviews with a small number of participants. It involves conducting intensive individual interviews to explore respondent perspectives on a particular idea, phenomenon, or situation. The questions in the interview were based on reviewed literature and addressed the research questions (Knott 2022; Rutledge & Hogg 2020; Bilal, 2021).

Since the interview guide was adopted and minor adjustments were made without interfering with the concepts of the questions, the investigator was confident of the tool's trustworthiness and therefore did not conduct another pretest. The interview guide contained questions for other participants who included health providers, community health workers, community members such as mothers with infants less than two years old, and grandmothers. Therefore, modifications were done to feature questions for male partners only. In addition, transitional terms were added to the questions to link them together thus ensuring a clear flow of ideas during the interview.

The interview guide contained open-ended questions that were linked to the research objectives and sought to generate answers for the research questions. It had two categories, with category A containing questions on socio-demographic data that included place of birth, residence, level of education, occupation, marital status, and number of children. Category B contained questions on knowledge about Kangaroo Mother Care (KMC), what KMC was, and its importance to the self and the baby. The other questions were on cultural beliefs about KMC in their communities, institutional factors which included experiences with care provided to their babies, and their interactions with health workers. Each interview lasted between 30- 45 minutes and was audio recorded following the participant's consent.

Tape recorder

The tape recorder consisted of at least three components which included a recording head, the magnetic head and tape transport mechanism, and the reproducing head that detected stored data and translated it back into the original signal. Before commencing the interview, the respondent was informed about the intention to record, and its importance, and permission to record was sought from them. The entire interview was captured on audiotapes using an audio recorder. The investigator ensured that the audio tapes had enough storage to capture all data up to the end of the interview. In addition, all the audiotapes were labeled with the time and date of the interview to facilitate easier identification during data analysis later.

3.8.2 Data collection Procedure

Depending on the interviewees option, the interviews were either in English or Kiswahili. After obtaining the participant's informed consent, the interview started. At the start of the interview, the audio recorder was turned on. The interview began with introductory questions to build rapport and let the subject feel at ease. Then, open-ended inquiries came, and finally, probing inquiries to learn more. A peaceful Kangaroo Mother Care (KMC) observation room was used during the interview to prevent any disruptions. To maintain confidentiality, each interview was coded with the letter "F" (for fathers), a number, and a date. The data was later translated and

transcribed during the analysis.

3.9 Quality Assurance

Quality assurance is the process of ensuring that data quality, integrity, and reliability are maintained at every stage of the project (Kindling and Strecker 2022; Ferdousi, Ahmed, Momen 2022). Planning of all procedures for the entire study was outlined before the execution of the study. The study respondents were informed of their roles and the role of the interviewer during the entire project ensuring compliance during data collection. Patient data used to identify infants on Kangaroo Mother Care (KMC) was de-identified to ensure anonymity.

During interviews, participants were allocated identifiers in the form of numbers so that no name was captured from the audio recorder. The interviews were transcribed verbatim to ensure the accuracy of collected data and its credibility. Data analysis was done iteratively. Consent forms and audiotapes were stored in a lockable cabinet only accessible by the investigator.

3.10 Trustworthiness

The level of confidence in the data obtained, its interpretation, and the procedures followed to guarantee the accuracy of the study results is referred to as trustworthiness. It is interchangeable with the phrase's validity and reliability, which are frequently used in quantitative investigations. Lincoln and Guba's criteria, which include credibility, transferability, dependability, and confirmability, was used in this study to ensure trustworthiness. Credibility refers to the researcher's level of assurance in the veracity of the study's conclusions. The degree to which the researcher shows that the study's conclusions apply to people in other circumstances is referred to as transferability. Confirmability is the level of objectivity such that, if the investigation were to be repeated, the findings would hold. Dependability refers to data stability to the extent that the study finding was consistent over time (Surucu and Maslakci, 2020; Thakur & Chetty 2020; Amin, Norgaard, Cavaco et al., 2020).

The investigator ensured credibility by recording all interviews, word-for-word

transcription of the recording, and ensuring that all the experiences were described faithfully and accurately. The participants were also allowed to listen to their own taped voice and confirmed the recording. The recordings were labeled with the date and time taken. The investigator collected data personally to avoid data distortion from assistant investigators.

Transferability was ensured by accurately interpreting the participants' perspectives of their participation in Kangaroo Care so that future fathers to neonates in Kangaroo Mother Care could identify with their thoughts and perceptions. Generalization was difficult without more research on the topic but the study adds to knowledge, understanding, and description of Kangaroo Care practice for parents with premature and low birth weight infants.

The investigator ensured confirmability by using participants' own words to avoid bias during the interview and analysis. Dependability was ensured by the use of various methods of data collection such as detailed field notes, recordings and verbatim transcriptions.

3.11 Ethical Considerations

Ethics is the study of morality and the particular moral decisions that must be made. The rules of behavior for researchers in research are governed by ethics. It is composed of four underlying principles: justice, autonomy, beneficence, and non maleficence (Varkey, 2020; Mann et al, 2021).

Beneficence

It's an obligation to act for the benefit of the participant to protect, and defend their rights and prevent harm.

Non maleficence

It's an obligation not to harm the participant.

Autonomy

All people should have the ability to make moral decisions and decisions based on their inherent worth, according to the principle, which also mandates that they should be allowed to exercise their right to self-determination. The researcher obtained the participant's informed consent, spoke the truth and maintained confidentiality to uphold the notion of autonomy.

Justice

Justice is described as fair, equitable, and appropriate treatment of persons. In this study, approval to conduct the study was sought from the Kenyatta National Hospital/University of Nairobi Ethics and Research Committee (ERC). The obtained approval was used to seek permission from the Mbagathi Hospital Medical Superintendent.

Upon commencement of the study, informed consent was sought from the participants and they were assured of anonymity by ensuring that no name was mentioned during the interview. It was clarified that there was no momentary gain from the study. They were informed that all the information obtained in the study would remain confidential and the results obtained would only be shared with relevant stakeholders without disclosing the names of the participants. The participants were also informed that the study was voluntary with no momentary gains and could decline participation at any time with no victimization. In addition, they were reassured that the study findings would be utilized only for the purpose they were intended for. Further, they were informed that they were free to withdraw from the study at any stage without any consequences.

3.12 Data Management

3.12.1 Data Preparation

Upon completion of the interview**,** the investigator verified the information given by summarizing each point and doing member checks to ensure that the information was correctly summarized.

3.12.2 Data Transcription

Verbatim transcription by a trained and qualified transcriber together with the investigator followed up independently. The investigator removed all identified information from the transcripts and replaced it with a text identification label where the letter “F” for father represented the participant and the transcript was coded by a number for anonymity. The investigator coded analyzed data into categories that conveyed the meaning of the section. The codes with common interpretation were grouped in sub-themes which then were combined to form themes. NVivo qualitative data analysis computer software was used to assist with data management by sorting, organizing, storing, retrieving, and locating words, phrases, and segments of data. The confidentiality of transcribed data was ensured by keeping the documents in a lockable cabinet only accessible to the investigator.

3.12.3 Data Analysis

Data analysis was guided by Colaizzi’s phenomenological data analysis process. Colaizzi’s method of data analysis was developed in 1978 and it’s a diligent and vigorous qualitative method that researchers use to find, understand, describe, and illustrate experiences from the study participants. It is a seven-step approach that includes familiarization, identifying significant statements, formulating meanings, clustering themes, developing an exhaustive description and seeking verification of the fundamental structure (Shorey and Debby, 2022; Praveena and Sasikumar, 2021).

In the first step, the investigator sought to obtain a general understanding of each transcript. The audiotapes were re-read many times in an attempt to comprehend the thought process and feelings of the participants. In step two, the investigator extracted significant phrases and statements from the transcripts, and put them together. In step three, meaning was formulated from the general statements, coded and categorized by the investigator who then presented to a transcriber to check for correctness of the process and consistency of the meanings. In step four, formulated data was clustered into themes and then summarized into emergent themes. The themes were then presented to a transcriber to check their accuracy. Step five involved integrating all the

resulting ideas into an exhaustive description of the phenomenon, which was then presented to the transcriber to confirm its completeness and reflection of the study. In step six, the findings were further summarized to avoid repetition and make a clear and concise description of the phenomenon. In step number seven, which was the final stage, the investigator followed up with the participants to validate the findings of the study.

3.13 Study Limitations and Delimitations

Some participants were reluctant to participate in the study due to the prejudice that Kangaroo Mother Care (KMC) was only offered by mothers as the name reads "Kangaroo Mother Care". The author clarified and allayed any misinformation. In addition, the results obtained from the study may not be representative of the whole country, thus recommendations for more studies on the topic have been made.

3.14 Dissemination Plans

The study findings shall be disseminated to the University of Nairobi's Department of Nursing Sciences under the Faculty of Health Sciences, to UoN's Library, to Medical Superintendent Mbagathi Hospital and be published in a peer-reviewed journal.

4.0: CHAPTER FOUR: RESEARCH FINDINGS

4.1 Introduction

This chapter presents the study findings as set out in the research methodology. The chapter therefore presents findings on identified themes and subthemes that emanated from interviews with the study participants relating to their perspectives of participation in Kangaroo Mother Care.

An aggregate of 9 fathers whose infants had been initiated on Kangaroo Mother Care at Mbagathi Level 5 Hospital took part. The study participants were selected using purposive sampling technique and the study sample size was determined on the basis of the principle of data saturation. Data saturation in the study was reached when data obtained from further interviews with the participants did not yield new insights or meanings. The credibility of this study was enhanced by high rate of response from the participants.

The chapter is organized in accordance with the research questions. Hence, section 4.3 highlights results on the participants' perspectives of participation in Kangaroo Mother Care; section 4.4 highlights results on the effect of cultural beliefs on the participants' perspectives of participation in Kangaroo Mother Care; section 4.5 highlights results on the effect of socioeconomic status on the participants' perspectives of participation in Kangaroo Mother Care while section 4.6 highlights results on the effect of knowledge of Kangaroo Mother Care on the participants' perspectives of participation in Kangaroo Mother Care. Results on the participants' demographic profile are also outlined.

4.2 Demographic Profile of the Participants

The participants' demographic attributes were evaluated. Results indicated that the participants were aged between 18 and 49 years with slightly over half aged 18 - 29 years (55.6%, n = 5), most lived within Nairobi (77.8%, n = 7) and that majority had basic education level (primary – 44.4%, n = 4; secondary – 22.2%, n = 4). Further, the participants were mostly either self-employed (44.4%, n = 4) or casual labourers

(33.3%, n = 3), all (100%, n = 9) were married and majority had 1 - 3 children (88.9%, n = 8). Results are presented in Table 4.1.

Table 4.1: Demographic characteristics of the participants

Demographic attributes		**Frequency (N)**	**Percentages**
Age	18 - 29 years	5	55.6
	30 - 39 years	2	22.2
	40 - 49 years	2	22.2
	Total	**9**	**100.0**
Place of residence	Within Nairobi	7	77.8
	Outside Nairobi	2	22.2
	Total	**9**	**100.0**
Highest education level	Primary	4	44.4
	Secondary	2	22.2
	Tertiary	2	22.2
	No education	1	11.1
	Total	**9**	**100.0**
Employment status	Casual labourer	3	33.3
	Self-employed	4	44.4
	Formally employed	2	22.2
	Total	**9**	**100.0**
Marital status	Married	9	100.0
	Total	**9**	**100.0**
Number of children	1 – 3	8	88.9
	4 or more	1	11.1
	Total	**9**	**100.0**

4.3 Participants' Perspectives of Participation in Kangaroo Mother Care

The study explored the perspectives of participation in Kangaroo Mother Care among the study participants. In this study, perspectives of participation in KMC were defined as the views, opinions and feelings of the surveyed fathers in relation to taking part in providing Kangaroo care to their babies. Therefore, a review of the fathers' perspectives of participation in Kangaroo Mother Care explored the participants' views regarding their involvement in providing this form of care to their babies in support of their wives. As opined by Gunay and Simsek (2020), fathers' perspectives on administration of Kangaroo Mother Care signify their opinions on the benefits of the intervention to their babies as well as regarding their taking part in its administration.

The primary focus of discussions with the participants was on their views regarding the kangaroo mother care intervention for their babies. Each transcript was scrutinized several times to identify key phrases which were then assigned appropriate codes. The phrases were then reduced and subsequently grouped on the basis of similarity in thoughts, ideas and meaning into clusters. The clusters were then organized into concepts which in turn were grouped into themes and sub-themes. The main theme and sub-themes in relation to the participants' perspectives of participation in kangaroo mother care are outlined in Table 4.2.

Table 4.2: Theme and sub-themes on participants' perspectives of participation in kangaroo mother care

Research objective	**Codes [5 top ranked codes]**	**Theme and sub-themes**
To explore perspectives of male partners participation in Kangaroo Mother Care at Mbagathi Level 5 Hospital	▪ Helps the baby add weight faster (n=9) ▪ Keeps the baby warm (n=8) ▪ Not allowed to see the baby during hospital visits (n=8)	*Theme*: Supports their babies receiving kangaroo mother care *Sub themes* It benefits the baby Difficulties experienced

	▪ Not accorded the chance to help with offering the kangaroo care (n=7) ▪ No or few interactions with the health care team (n = 7)	
Definition of the theme & descriptors *Supports their babies receiving KMC* signified positive support for the KMC intervention among the participants. *It benefits the baby* signified the participants' appreciation of the usefulness and significance of kangaroo care to their babies. *Difficulties experienced* signified the participants' views on the challenges they and their spouses experienced in relation to provision of kangaroo care to their babies.		

During the discussions with the study participants, the participants' support for their babies receiving the kangaroo mother care intervention emerged as the overarching theme in relation to their perspectives of participation in KMC. From the findings, majority of the study participants indicated that they were in support of the kangaroo mother care initiative and supported their babies receiving this form of care.

Two sub-themes emerged that related to the participants' views in relation to participation in kangaroo mother care. These were *it benefits the baby* which represented the participants' appreciation of the usefulness and importance of kangaroo care to their babies and *difficulties experienced* which represented the participants' views regarding the challenges that they and their spouses experienced in relation to provision of kangaroo care to their babies. The two sub-themes are as described in the following subsections.

4.3.1 It benefits the baby

The first sub-theme to emerge from the data in relation to the participants' perspectives of participation in kangaroo mother care was it benefits the baby. The sub-theme signified the participants' appreciation of the usefulness and significance of kangaroo care to their babies. From the findings, the participants unanimously agreed that their babies benefitted from the kangaroo mother care. Among the benefits the participants attributed to the kangaroo care included the baby gaining weight more

rapidly, helps in keeping the baby warm and leads to better breastfeeding of the baby. Indeed, most of the participants expressed being happy and satisfied that their wives were able to practice this form of care to the little infant. Their shared perspectives in this regard are as illustrated in the following verbatim excerpts;

> "...Kangaroo care has helped because my babies have gained weight especially considering that they (*referring to their twin babies*) were very small when they were born. It's helping babies add weight faster, so, it's good." (P1)

> "... not bad (*referring to his two babies receiving kangaroo care*). Yes, it's important as it has helped them gain weight. I would definitely recommend it to other fathers as it helpful to the small babies." (P2)

> "... I have not yet provided Kangaroo care but my wife has been doing it, at least they (*referring to their twin babies*) have gained weight. Yes, it has made an impact on the babies as they are adding weight daily." (P3)

> "...It's not bad so long as the baby is adding weight. In fact, if allowed I would even come when am off duty to help the mother to give Kangaroo care so as the baby can gain weight faster and we go home." (P4)

> "....it's good to participate in it (*referring to kangaroo care*). If it's the one that will make my baby to grow faster, then am okay with it." (P5)

> "...sure, I was okay with it and wanted to participate too. Yes, the baby's weight has increased even if it initially dropped but it has started increasing." (P6)

> "...It's not bad because it helps the baby not to get diseases. It also keeps the baby warm and helps him breastfeed better. It really helps." (P7)

> "...I didn't have any problem with it (*referring to the kangaroo care*). It's good because since the babies were started on it, they have gained weight. It is for the benefit of my babies, so I support it." (P9)

4.3.2 Difficulties experienced

The second sub-theme in relation to participants' perspectives of participation in kangaroo mother care was difficulties experienced. This sub-theme represented the participants' views on the challenges they and their spouses experienced in relation to provision of kangaroo care to their babies. From the findings, majority of the study participants acknowledged that there were a number of challenges that they and their wives experienced in relation to provision of kangaroo mother care to their babies.

Key among the challenges included not being allowed to see the babies when they visited the hospital, not being accorded the opportunity to help with offering kangaroo care, concerns of their wives being overwhelmed with offering kangaroo care without help and having few to no interactions with the health care team. It was therefore evident that the participants experienced several challenges which adversely impacted their experiences in relation to participation in kangaroo mother care. This is illustrated in the ensuing verbatim excerpts;

> "The problem is that fathers are not allowed to see their babies. I come from far. In addition, as a Muslim, am supposed to pray for my kids and perform other rituals to them. I have an Ethiopian friend who told me that, in their country, fathers are allowed in the ward to assist their female partners to take care of their babies. I thought it's the same here. It's good but fathers too should be allowed to offer kangaroo care to their babies so long as they are clean. (*he added*) ... it is very tiresome for mothers caring for their babies single handedly especially those who have twins. It would have been nice to allow fathers or aunties to assist so as the mother can rest which ensures she gets enough milk." (P1)

> "…No, except not being allowed to see my children. It (*referring to kangaroo care*) is good, but I would like we do it at home where I can assist my wife since here in the hospital I am not allowed to do so." (P2)

> "Yes, being denied to see my babies, I was told it is to prevent infection. In addition my wife has twins, but time is too short to take care of each one of them. At times the doctor is too harsh on her." (P3)

> "Not bad (referring to the kangaroo care), but it would have been better if all of us as parents were involved in it. (*On whether he had interacted with the health care providers*) I have not interacted with them. They are mostly interested with the mother of the babies. ... I would have wanted the mother to be assisted… it's very tiring for her taking care of both babies while one in Kangaroo room and the other one in nursery. She has even reduced weight! " (P9)

> "I have not had an opportunity to enter in the ward where the baby and the mother are. My wife comes to meet me outside the ward. (*On whether he had interacted with the health care providers*) I have not met any doctor. My wife is the one who updates me on what the doctor says regarding the progress of the baby." (P8)

> "(*on experience with the health care team*) I have not managed to speak with any…you are the first one to talk with…so, am grateful." (P7)

> "Yes…I was told only the mother is supposed to see and attend the baby. I am

not allowed to get into the ward where he is. (*Asked whether he had talked with any health care team*) No…never." (P6)

"During admission, we were not readily received in the facility despite our case being an emergency. There was a delay. Also I have not had a direct communication with them regarding the progress of my baby." (P5)

"I have not interacted with any (*referring to the doctors*)…the time I had come to talk with the doctor, it was not possible. Since then I have been busy at my place of work. I get information from my wife." (P4)

"I have only interacted once with one (*referring to a health care worker*) who told me about the status of my babies. These other times I am updated by my wife of what the doctor said and also given a prescription to buy medicine for the babies." (P2)

4.4 Effect of Cultural Beliefs on Participants' Perspectives of Participation in Kangaroo Mother Care

The study explored the effect of cultural beliefs on the perspectives of study participants regarding participation in Kangaroo Mother Care. In this study, cultural beliefs were defined as the aggregation of traditional norms, customs, beliefs, traditions and practices revolving around the role of fathers and mothers in taking care of an infant. The study therefore aimed to find out how the participants' perspectives on participation in kangaroo mother care were affected by their cultural beliefs. Abagirimana (2020) and Bilal et al. (2021) averred that perspectives on caring for babies and children among fathers and mothers were significantly influenced by their cultural beliefs and traditions with the respective roles for each such as the mothers being the immediate caregivers of newborns and children in general while fathers being family providers are deeply entrenched in cultural beliefs and norms.

The primary focus of discussions with the participants was on the influence of cultural beliefs on their perspectives of participation in Kangaroo Mother Care. Each transcript was scrutinized several times to identify key phrases which were then assigned appropriate codes. The phrases were then reduced and subsequently grouped on the basis of similarity in thoughts, ideas and meaning into clusters. The clusters were then organized into concepts which in turn were grouped into themes and sub-themes. The main theme and sub-theme in relation to the effect of cultural beliefs on

participants' perspectives of participation in Kangaroo Mother Care are summarized in Table 4.3.

Table 4.3: Theme and sub-themes on effect of cultural beliefs on participants' perspectives of participation in kangaroo mother care

Research objective	**Codes [5 top ranked codes]**	**Theme and sub-themes**
To determine how cultural beliefs affect the perspectives of male partners participation in Kangaroo Mother Care	▪ It's the mother to look after the child in hospital (n=8) ▪ Fathers often facilitate and meet arising needs (n=8) ▪ Health care team mostly interacts with the mother (n=7) ▪ Not heard of or seen it at the community level (n=7) ▪ Never heard of it from another man (n=8)	*Theme*: Effect of cultural beliefs *Sub themes* Gender roles Fathers' lack of exposure to KMC
Definition of the theme & descriptors *Effect of cultural beliefs* signified the participants' views regarding how cultural beliefs influenced their perspective of engaging in kangaroo mother care. *Gender roles* signified participants' views regarding the respective roles of fathers and mothers in relation to caring for the infant. *Fathers' lack of exposure to KMC* signified the participants' views as having not encountered KMC practice within their communities.		

During the discussions with the study participants, effect of cultural beliefs emerged as the overarching theme in relation to how cultural beliefs influenced the participants' perspectives of participation in kangaroo mother care. From the findings, the study participants shared the view that they had never seen fathers practicing kangaroo care. Most of the participants also acknowledged that they were of the belief that the role of providing kangaroo care was the mothers though they were open to supporting their wives in performing the intervention. Most also indicated that they heard of the intervention for the first time in the hospital and had not experienced its practice in their communities. In general, the participants concurred that cultural beliefs had an influence on their perspectives of participation in kangaroo mother care. Two sub-themes emerged that related to how cultural beliefs affected the

participants' perspectives of participation in kangaroo mother care. These were gender roles and fathers' lack of exposure to KMC and are described in the following subsections.

4.4.1 Gender roles

Gender roles emerged as the first sub-theme in relation to how cultural beliefs affected the perspectives of participation in Kangaroo Mother Care among the study participants. This sub-theme signified participants' views regarding the respective roles of fathers and mothers in relation to caring for the infant. From the findings, most of the participants indicated that they believed that the role of providing kangaroo care was the mothers though they were open to supporting their wives in performing the intervention. In addition, majority of the study participants also indicated that they had never seen fathers practicing kangaroo care. A significant proportion of the participants also indicated that their role, as fathers, was mainly providing the needs of the mother and child while at hospital such as meting the costs of prescribed medications for the child, bringing pampers for the child and bringing food and other necessities/supplies for the wife. Hence, the participants' low participation in kangaroo care could possibly be due to existing cultural beliefs in which the mothers are held as being the primary caregivers for the infants. From the findings, it was apparent that cultural beliefs around gender roles did impact the participants' perspectives of participating in kangaroo care. This is illustrated in the following verbatim excerpts;

> "I have not interacted with them (*referring to the health care team*). They are mostly interested with the mother of the babies. I guess it is because, culturally, it is the mothers who look after small children." (P9)
>
> ": I have not yet provided Kangaroo care but my wife has been doing it. Not that I cannot do it but being a man, some things are better left to women. They are better placed to do that (*referring to offering kangaroo care*)" (P3)
>
> "(*On his reaction following being informed that the twins weight was very little*) I did not have any issues….I just organized for an ambulance as advised by the doctors and brought them here. I have been supporting my wife by ensuring that whatever is required during their stay in hospital is provided in time." (P4)
>
> "Yes. I have not been allowed to visit and attend to my baby…since birth I

have not seen my baby. My wife says its okay but I have not had an opportunity to enter there…I was told only the mother is allowed..." (P5)

"(*on being queried about how the care of the baby has been at the hospital*) Good but only the mother who is allowed to attend to the baby. My role is to bring something to eat for the mother and pampers for the baby. I have not been allowed to see the baby. It is the mother who has been taking care of the baby in the hospital. (*he added*) I was told only the mother is supposed to see and attend the baby. I am not allowed to get into the ward where he is." (P6)

"(*when asked whether he was allowed to enter in the nursery*) No, I was told that am not allowed to enter in the nursery…only the mother of the baby who is allowed. I didn't find it a problem as traditionally it is the mothers who take care of the children as we (*referring to men/fathers*) go out to provide." (P8)

"... It is the mother who stays with the child in hospital. Mine is mainly to facilitate her and the baby on any provisions they need while at the hospital." (P2)

"... I come from far. In addition, as a Muslim, am supposed to pray for my kids and perform other rituals to them. I have an Ethiopian friend who told me that, in their country, fathers are allowed in the ward to assist their female partners to take care of their babies. I thought it's the same here..." (P1)

4.4.2 Fathers' lack of exposure to KMC

Fathers' lack of exposure to kangaroo mother care emerged as the second sub-theme in relation to the effects of cultural beliefs on the participants' perspectives of participation in kangaroo mother care. This sub-theme represented the participants' views as to having not witnessed practice of kangaroo mother care within their communities. It also signified the general lack of awareness about kangaroo care among the study participants prior to the current experience with the initiative and having not heard about the intervention among persons in their community. From the findings, a significant proportion of the participants indicated that they only learned of the intervention at the hospital and had not heard of it within the communities in which they resided. Hence, it was evident that the experience of their babies being born prematurely opened the opportunity for most of the participants to learn of the kangaroo mother care intervention without which possibly most would have never known of this useful intervention. It was also evident that the participants' low participation in kangaroo care could possibly be as a result of their little or no exposure to the intervention. This is demonstrated in the ensuing verbatim excerpts;

"...I have not heard about it (*referring to community members' views on children born prematurely*); (*on whether he understood kangaroo care*) I have no idea…I got to hear about that word today, but my wife told me she has been placing the baby on the chest as advised by the health care team." (P5)

"So far I have not heard anything about it (referring to kangaroo mother care) from other persons. … however, my dad knows about kangaroo Care…he says it keeps the baby warm; (*he added*) No, I have heard about Kangaroo care for the first time here in the hospital." (P1)

"(*asked about whether he had heard about KMC in his community*) I have not heard of it. I came to hear about it here in the hospital. I have also never seen a father providing kangaroo care." (P2)

"No, I have never experienced a father practicing kangaroo care. in fact, I have never of a fellow man talk about it. I do not know, may be it's because, as men, we are not directly involved in the care of newborns." (P8)

"I have not heard their views (*referring to community members take of babies born prematurely*)…I have also not experienced any baby born with little kilograms. It is my first time to experience it now. I have never heard of people talking about kangaroo care where we live; so I learnt about it in this hospital." (P3)

"I have never seen or heard of a father providing kangaroo care to their baby. I have also not heard anything on caring for babies born before the due date or those born with low birth weights." (P9)

"(*asked about how people in his community viewed children born prematurely*) No idea…I have not experienced any baby born before the expected time until now. I only heard of kangaroo care when we were admitted in this hospital and have never experienced any father providing kangaroo care to their baby." (P4)

4.5 Effect of Socioeconomic Status on Participants' Perspectives of Participation in Kangaroo Mother Care

The study also explored the effect of socioeconomic status on the study participants' perspectives on participation in Kangaroo Mother Care. In this study, socioeconomic status reflected any disruptions on the participants' livelihood sources as well as any financial difficulties that they experienced as a result of the need to support the baby and the mother during the KMC period. It thus signified how their financial status influenced their perspectives of participation in kangaroo mother care. According to Mapunda et al. (2019) and Zeng et al. (2022), a review of the effect of socioeconomic

status on engagement in KMC explored the participants' views regarding how their families income position were affected by the need to support the child and mother during kangaroo care and how this in turn influenced their view of the KMC intervention.

The primary focus of discussions with the participants was on how their socioeconomic status influenced their views regarding the kangaroo mother care practice. Each transcript was scrutinized several times to identify key phrases which were then assigned appropriate codes. The phrases were then reduced and subsequently grouped on the basis of similarity in thoughts, ideas and meaning into clusters. The clusters were then organized into concepts which in turn were grouped into themes and sub-themes. The main theme and sub-themes in relation to how socioeconomic status affected the participants' perspectives of engagement in kangaroo mother care are summarized in Table 4.4.

Table 4.4: Theme and sub-themes on effect of socioeconomic status on participants' perspectives of participation in kangaroo mother care

Research objective	**Codes [5 top ranked codes]**	**Theme and sub-themes**
To determine how socioeconomic status affect the perspectives of male partners participation in Kangaroo Mother Care.	▪ Not able to work normally (n=8) ▪ Misses work regularly (n=9) ▪ We are experiencing financial challenges (n=8) ▪ It is costly having a child in hospital (n=7) ▪ At times I am short of money to come to hospital (n=6)	Weakened socioeconomic status *Sub themes* Disrupted work Financial constraints
Definition of the theme & descriptors *Weakened socioeconomic status* signifying how the participants' livelihood earning capacity was impaired by the need to support the mother and child during KMC and how this shaped their views regarding participation in the intervention. *Disrupted work* signified disruption to the participants' normal working and how this how this shaped their views regarding participation in the KMC intervention. *Financial constraints* signified experiences of financial difficulties among the participants and how this shaped their views regarding participation in the KMC intervention.		

Based on discussions held with the study participants regarding the effect of socioeconomic status on their perspectives of participation in Kangaroo Mother Care, *weakened socioeconomic status* emerged as the overarching theme. Weakened socioeconomic status signified how the participants' livelihood earning capacity was impaired by the need to support the mother and child during KMC and how this shaped their views regarding participation in the intervention. This theme therefore illuminated the impact of an impaired socioeconomic status on the participants' views regarding participation in Kangaroo Mother Care. The two sub-themes that emerged under this theme were *disrupted work* and *financial constraints* and are described in the following subsections.

4.5.1 Disrupted work

This subtheme signified disruption to the participants' normal working and how this shaped their views regarding participation in the KMC intervention. It therefore represented how the participants' livelihoods were affected by the need to closely support the baby and the wife during the period they were in hospital including during the KMC intervention and how that influenced their views about the KMC practice. From the findings, it was evident that participants' normal working was adversely affected as they had to regularly leave work and go to visit their wives and the child in hospital and hence were not able to work normally. The need for the participants to keep working so as to support the mother and baby in hospital likely also hindered their greater participation in kangaroo care. Consequently, some of the participants were of the view that kangaroo care should be performed at home as this would be less disruptive to their normal work. This is illustrated in the following verbatim quotes;

> "(*asked whether Kangaroo Care to his babies had affected his day to day life*) Yes, it has. You see, I come from far and every time I have to close my business to come all the way. So, I am not able to work as I used to before all this happened." (P1)

> "Though I fully support kangaroo care on my children; the whole experience of having to come here regularly to pay them a visit is overwhelming. As a casual labourer, I am missing way too many days of work and of course you understand what effect that has on our financial status." (P2)

> "It is a tough task. You see, you need to come here almost daily to see how the children and their mother are doing, and me being self-employed means my working is significantly affected. It's a delicate balancing act, as my family is important to me, but so does work." (P3)

> "Every time I am here means I have missed work. I am barely able to focus at work as I think of the little child and my wife in hospital. I feel my productivity is negatively impacted. May be it would be better if my wife was to be allowed to practice the kangaroo care at home. That way, my working would be less disrupted." (P5)

> "... How can you effectively work when you have to rush to hospital from time to time? So, while kangaroo care is good and helpful to the baby, it comes at a cost to my work. I am not able to work normally as I would do if the child was not in hospital. I do not know if it would be possible for them to be allowed to go home and my wife can continue with it (*referring to kangaroo care*) at home." (P7)

> "(*Asked whether kangaroo care was useful*) Yes it is, but I would request we do it at home so I am able to continue working without lots of disruption." (P8)

> "... sure I would want to take them back home, when it is possible… my work has really suffered. I have not been able to focus on it well as I should." (P6)

4.5.2 Financial constraints

Financial constraints emerged as the second sub-theme under the effect of socioeconomic status on the study participants' perspectives of participation in Kangaroo Mother Care. This sub-theme signified experiences of financial difficulties among the participants resulting from having their child in hospital and how this shaped their views regarding participation in the KMC intervention. From the findings, most of the participants acknowledged experiencing financial hardships which they attributed to high transport costs incurred while visiting their children in hospital, treatment related costs and costs of the various necessities for the mother and child while in the hospital. Disruptions on their normal working also contributed to the financial challenges experienced. In turn, a good number of the participants indicated that they would have preferred the kangaroo care to be performed at home rather than the hospital as this would reduce the associated costs of taking care of the baby and mother while in hospital. This is illustrated in the following verbatim excerpts;

"...Yes, I come from far thus I spend a lot of money on transport and accommodation. And remember when I am here, I am not working, which means no income during that time. So, it's true that having to be here so often is financially draining." (P1)

"Yes, it's expensive due to transport I use to come here. A times I just stay in the house because I don't have another source of money apart from the salary which is paid at the end of the month." (P4)

"(*asked if provision of kangaroo care affected his daily activities*) somehow… because I use a lot of money on transport. There is also foregone revenue for not being at work whenever I am here." (P5)

"(*asked by difficulties experienced*) Also being told to buy medicines for the babies, which are expensive and most of the time I don't have that money. (*asked of what can be done to alleviate the financial burden*) ...being assisted to buy medicine for my children who are admitted here. Also the child and mother being discharged early, and possibly she continues with kangaroo care at home..." (P2)

"The whole experience (*referring to kangaroo care done in the hospital*) is expensive as I have to travel all the way to here and nowadays transport is quite expensive. Add to that costs for the various items the child and mother need while in hospital. Also add to that the costs of treatment. So it is not easy at all." (P7)

"Honestly, I am experiencing lots of financial hardships when my child is here. Mainly due to costs related to treatment but also due to rising transport costs and costs of basic necessities I am asked to bring from time to time." (P8)

4.6 Effect of Knowledge of KMC on Participants' Perspectives of Participation in Kangaroo Mother Care

The study sought to assess how knowledge of Kangaroo Mother Care affected perspectives of the study participants in relation to participation in Kangaroo Mother Care. In this study, knowledge of kangaroo mother care was defined as the awareness about this form of care which is normally offered to low birth weight and prematurely born infants among the study participants. Therefore, a review of the effect of knowledge of Kangaroo Mother Care explored how the participants' views regarding the kangaroo mother care practice was influenced by their awareness about this intervention. Gill et al. (2020) and Cai et al. (2022) pointed that effect of knowledge of kangaroo mother care on its practice signified how the level of awareness,

information and understanding that the parents had about KMC influenced their views on its practice.

The primary focus of discussions with the participants was to identify their level of awareness about kangaroo mother care and how this influenced their views about the intervention. Each transcript was scrutinized several times to identify key phrases which were then assigned appropriate codes. The phrases were then reduced and subsequently grouped on the basis of similarity in thoughts, ideas and meaning into clusters. The clusters were then organized into concepts which in turn were grouped into themes and sub-themes. The main theme in relation to the participants' knowledge of kangaroo mother care is depicted in Table 4.5.

Table 4.5: Theme on effect of knowledge of KMC on participants' perspectives of participation in kangaroo mother care

Research objective	**Codes [3 top ranked codes]**	**Theme**
To assess how knowledge of Kangaroo Mother Care affect perspectives of male partners participation in Kangaroo Mother Care	▪ Heard of it for the first time here (n=8) ▪ Don't know much about it (n=8) ▪ They should teach us too about it (n=6)	Low knowledge of kangaroo care
Definition of the theme *Low knowledge of kangaroo care* signified low awareness and lack of adequate information about kangaroo mother care among the study participants.		

Theme: Low knowledge of kangaroo care

In relation to how knowledge of Kangaroo Mother Care affected the study participants' perspectives of participation in Kangaroo Mother Care, low knowledge of kangaroo care emerged as the dominant theme. This theme reflected low awareness and lack of adequate information about kangaroo mother care among the study participants. From the findings, a significant proportion of the study participants indicated that they were not aware of kangaroo mother care intervention especially

prior to their child being born and being put through the intervention. In general, the participants indicated that they did not know much about the kangaroo care intervention and only learned about it, mainly, from their wives when they visited the children in hospital. The low knowledge of kangaroo care among the participants also impeded their participation in offering the intervention to their babies. However, most of the participants did acknowledge that the intervention was beneficial to their babies as it helped them gain weight more rapidly. The participants also added that other members of the family should be included in KMC administration such as themselves or aunties to reduce the burden and fatigue on the mothers of the babies. This is evident in the following verbatim excerpts;

> "(*responding to whether they knew what kangaroo care was*) I do not know, even I was asking what that is. But what came in my mind is the way the animal called Kangaroo carries its baby. In fact, I have heard about kangaroo care for the first time here in the hospital. (*He added*) it's very tiresome for mothers caring for their babies single handedly especially those who have twins. It would have been nice to allow fathers or aunties to assist so as the mother can rest which ensures she gets enough milk." (P1)

> "(*asked whether they thought Kangaroo care is important*) It is not bad…but I do not know a lot about it therefore not in a position to explain further. It is my wife who explained to me that it is all about putting the baby on the mother's chest for warmth. That is all I know about it." (P2)

> "(*asked whether he knew what Kangaroo care was*) No. it's my first time to hear about Kangaroo care. My wife told me it's placing the baby on the chest to get her warmth. I have not heard views about it before as I have not experienced any baby born with little kilograms. (*he added*) fathers too should be allowed in the ward to visit and attend to their babies." (P3)

> "Their mother tells me they were being attended well, ... I have not managed to talk with any doctor. I get information from my wife. (*responding to whether he knew what kangaroo care was*) Initially I did not know about Kangaroo care, but as I entered in a Kangaroo room, I saw posters on the walls explaining what the kangaroo care is." (P4)

> "(*asked to elaborate what he understood about Kangaroo Care*) I have no idea…I got to hear about that word today, but my wife told me she has been placing the baby on the chest as advised by health care team. (*he added*) Fathers should be allowed to visit their babies, and also be provided with a room where they can practice Kangaroo care for the few hours they come to visit them in the hospital." (P5)

"Yes, the mother has been putting the baby on the chest. (*Did she tell you the reason?*) No. (*Has any of the health workers told you about it?*) No….Never. (*asked whether he had heard about kangaroo care*) No." (P6)

"I do not know much about Kangaroo Care; therefore I follow doctor's instructions. All I know about it is its like the way the mother places the baby on the chest. (*he added*) I have seen its benefits because the baby has gained weight although at times it drops." (P8)

"I do not know about Kangaroo Care, but my wife tells me it helps in increasing the weight of the baby, which I look forward to doing it too, but I have not gotten an opportunity. (*he added*) I would recommend to the hospital to allow fathers with babies in the hospital to be allowed to interact with their children from birth." (P9)

5.0: CHAPTER FIVE: DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This section highlights discussion of findings, conclusions and recommendations of the study in accordance with the identified themes and sub-themes. The study explored the perspectives of male partners participation in kangaroo mother care at Mbagathi Level 5 Hospital.

5.2 Discussion of Findings

5.2.1 Participants' Perspectives of Participation in Kangaroo Mother Care

This study established that majority of the study participants were in support of the kangaroo mother care initiative and supported their babies receiving this form of care as it benefitted the babies. Hence 'it benefits the baby' emerged as one of the leading reasons behind the participants' support of the KMC practice. From the findings, the participants unanimously agreed that their babies benefitted from the kangaroo mother care. Among the benefits the participants attributed to the kangaroo care included the baby gaining weight more rapidly, helps in keeping the baby warm and leads to better breastfeeding of the baby. Indeed, most of the participants expressed being happy and satisfied that their wives were able to practice this form of care to their babies. This concurred with Yue et al. (2020) who in a review of barriers and facilitators of kangaroo mother care adoption in select Chinese hospitals reported that most of the male partners whose wives were providing kangaroo care to their prematurely born children supported the intervention as it helped the infants gain weight more rapidly. Similarly, Towet et al. (2022) espoused that appreciation of the benefits of kangaroo care to prematurely born infants among fathers was a major facilitator for their support of the practice. Studies by Mitchell et al. (2021) and Mapunda et al. (2019) also identified acknowledgement of the benefits of kangaroo mother care to babies as one of the leading determinants for increased support and adoption of the practice.

Difficulties experienced emerged as the second sub-theme and signified participants'

views on the challenges they and their spouses experienced in relation to provision of kangaroo care to their babies. From the findings, majority of the study participants acknowledged that there were a number of challenges that they and their wives experienced in relation to provision of kangaroo mother care to their babies. Key among the challenges included not being allowed to see the babies when they visited the hospital, not being accorded the opportunity to help with offering kangaroo care, concerns of their wives being overwhelmed with offering kangaroo care without help and having few to no interactions with the health care team. It was therefore evident that the participants experienced several challenges which possibly adversely impacted their experiences in relation to participation in kangaroo mother care. Similar findings were reported by Bilal et al. (2021) and Gakuna (2019) who identified fatigue on mothers as a result of providing kangaroo care without help from other people and fathers not being able to see their babies while under kangaroo care as major barriers to the intervention's effective implementation. Similarly, Garnica-Torres et al. (2020), Hailegebriel et al. (2021) and Kinshela et al. (2021) also opined that inability of fathers to see their babies during kangaroo care and lack of explanations about the intervention to fathers by the health care team were also cited as aspects which impeded fathers' active involvement in provision of this intervention to their babies.

5.2.2 Effect of Cultural Beliefs on Participants' Perspectives of Participation in Kangaroo Mother Care

Gender roles, which signified participants' views regarding the respective roles of fathers and mothers in relation to caring for the infant, emerged as the first sub-theme in relation to the effect of cultural beliefs on the participants' perspectives of participation in KMC. From the findings, most of the participants indicated that they believed that the role of providing kangaroo care was the mothers though they were open to supporting their wives in performing the intervention. In addition, majority of the study participants also indicated that they had never seen fathers practicing kangaroo care. A significant proportion of the participants also indicated that their role was mainly providing the needs of the mother and child while at hospital such as meting the costs of prescribed medications for the child, bringing pampers for the

child and bringing food and other necessities/supplies for the wife. Hence, it was apparent that cultural beliefs around gender roles did impact the participants' perspectives of participating in kangaroo care. Cai et al. (2022) and Jamali and Shah (2019) shared similar views that culture played a central role in influencing the roles and responsibilities that fathers and mothers assume with respect to caring for a newborn with most of the immediate caregiving, including provision of kangaroo care, perceived as being a mother's role in many societies. Bilal et al. (2021) also agreed that the willingness and dedication of fathers or male spouses to support KMC is influenced by cultural beliefs with the male partners' active participation in KMC impeded by cultural norms and customs which designate such responsibility to the mother of the child.

Fathers' lack of exposure to KMC, which signified the participants' views as to having not witnessed practice of kangaroo mother care within their communities, emerged as the second sub-theme in relation to the effect of cultural beliefs on the participants' perspectives of participation in KMC. This sub-theme also signified the general lack of awareness about kangaroo care among the study participants prior to the current experience with the initiative and having not heard about the intervention among persons in their community. From the findings, a significant proportion of the participants indicated that they only learned of the intervention at the hospital and had not heard of it within the communities in which they resided. Hence, it was evident that the experience of their babies being born prematurely opened the opportunity for most of the participants to learn of the kangaroo mother care intervention without which possibly most would have never known of this useful intervention. Likewise, Jamali et al. (2019) in a study exploring barriers to kangaroo mother care in rural Pakistan also identified low exposure to KMC among fathers as being a major impediment for the intervention's effective implementation. Kinshela et al. (2021) also reported low exposure to KMC as being a major barrier to effective provision of kangaroo mother care to qualifying babies in sub-Saharan Africa. Studies by Mathias et al. (2020) and Kwesiga et al. (2022), also lamented that the slow adoption of KMC in many settings could partly be due to male partners being left out in its implementation, an area requiring further attention.

5.2.3 Effect of Socioeconomic Status on Participants' Perspectives of Participation in Kangaroo Mother Care

Disrupted work, which signified disruption to the participants' normal working and how this how this shaped their views regarding participation in the KMC intervention, emerged as the first sub-theme in relation to the effect of socioeconomic status on the participants' perspectives of participation in KMC. The sub-theme therefore represented how the participants' livelihoods were affected by the need to closely support the baby and the wife during the period they were in hospital including during the KMC intervention and how that influenced their views about the KMC practice. From the findings, it was evident that participants' normal working was adversely affected as they had to regularly leave work and go to visit their wives and the child in hospital and hence were not able to work normally. Consequently, some of the participants were of the view that kangaroo care should be performed at home as this would be less disruptive to their normal work. Lewis et al. (2019) in a study conducted in US also noted that caregiving can be costly and that disruptions on work schedules resulting from frequent hospital visits to check on the wellbeing of the mother and bay by their male partners was a major barrier to effective implementation of kangaroo mother care in the country. Mathias et al. (2020) also observed that disruption on male partners' livelihoods due to the need to frequently visit the baby in hospital was a significant barrier to their utilization of the kangaroo mother care service in Malawi. Studies by Mitchell et al. (2021), Towet et al. (2022) and Sjomar et al. (2023) shared similar observation that one of the significant barriers to male partners' utilization of the kangaroo mother care intervention was its potential disruption on their work and livelihood sources.

Financial constraints, which signified experiences of financial difficulties among the participants resulting from having their child in hospital and how this shaped their views regarding participation in the KMC intervention, emerged as the second sub-theme in relation to the effect of socioeconomic status on the participants' perspectives of participation in KMC. From the findings, most of the participants acknowledged experiencing financial hardships which they attributed to high transport costs incurred while visiting their children in hospital, treatment related

costs and costs of the various necessities for the mother and child while in the hospital. Disruptions on their normal working also contributed to the financial challenges experienced. In turn, a good number of the participants indicated that they would have preferred the kangaroo care to be performed at home rather than the hospital as this would reduce the associated costs of taking care of the baby and mother while in hospital. Zeng et al. (2022) in a study conducted in China also identified financial difficulties resulting from having a child in hospital particularly due to treatment related costs as being a major barrier to men's participation in the kangaroo mother care in the country. Similarly, in another Chinese study, Yue et al. (2020) also cited financial challenges arising from the need to meet hospital bills and high transport costs due to the regular hospital visits while at the same time keeping up with other household bills as being a consequential barrier to effective implementation of kangaroo mother care service in the country. Equally, financial difficulties parents face while having a child in hospital were also cited to be a leading barrier to adoption of the kangaroo mother care intervention in studies by Mapunda et al. (2019) and Mathias et al. (2020).

5.2.4 Effect of Knowledge of KMC on Participants' Perspectives of Participation in Kangaroo Mother Care

Low knowledge of kangaroo care, which signified low awareness and lack of adequate information about kangaroo mother care among the study participants, emerged as the dominant and only theme in relation to the effect of knowledge of Kangaroo Mother Care on the participants' perspectives of participation in KMC. From the findings, a significant proportion of the study participants indicated that they were not aware of kangaroo mother care intervention especially prior to their child being born and being put through the intervention. In general, the participants indicated that they did not know much about the kangaroo care intervention and only learned about it, mainly, from their wives when they visited the children in hospital. However, most of the participants did acknowledge that the intervention was beneficial to their babies as it helped them gain weight more rapidly. The participants also added that other members of the family should be included in KMC administration such as themselves or aunties to reduce the burden and fatigue on the

mothers of the babies. Similar findings were also reported by Makokha (2022) and Hailegebriel et al. (2021) who also argued that adoption of kangaroo mother care practice could further be improved through creating awareness about the intervention and its importance among male partners of mothers whose children require the intervention. According to Gill et al. (2020), uptake of Kangaroo Mother Care in neonatal units can significantly be improved through increased engagement of male parents and particularly through educating the fathers on the significance of the intervention to the wellbeing and survival of their children. Studies by Jamali et al. (2019), Yaman et al. (2022) and Sjomar et al. (2023) also identified low awareness of kangaroo care among fathers of children receiving the intervention as being a major barrier to the uptake of the KMC intervention.

5.3 Conclusions

Based on the findings of the study, the study concludes that male partners at Mbagathi Level 5 Hospital were in support of the kangaroo mother care practice as it benefitted their babies. However, their perspectives of participation in kangaroo mother care were influenced by various factors including;

Cultural beliefs in the form of gender roles and their lack of exposure to kangaroo mother care.

A weakened socioeconomic status mainly due to disruptions in their work and financial difficulties experienced as a result of having a child in hospital.

Having low knowledge of kangaroo care largely due to not being educated about the intervention within healthcare settings

5.4 Recommendations

5.4.1 Recommendations for Practice

Health practitioners in the hospital should ensure that male parents of children born prematurely or with low birth weight requiring the KMC intervention are adequately informed and trained about this important intervention. The fathers should also be

allowed to actively participate in providing kangaroo care for their babies whenever possible.

5.4.2 Recommendations for Policy

The structures and policies at Mbagathi Level 5 Hospital should meet the needs of both parents in relation to implementation of the KMC intervention. Consequently, male parents can be provided a room where they can also practice kangaroo care. In addition, to remove the close association of kangaroo care with mothers only, stakeholders should consider changing the name of the intervention from Kangaroo Mother Care to Kangaroo Care.

5.4.3 Recommendations for Research

The current study explored the perspectives of participation in kangaroo mother care among male partners at Mbagathi Level 5 Hospital. Being a single facility study, its findings may not be generalized. A wider study on the research subject involving a wider pool of male partners of mothers with infants born prematurely in the country is hereby recommended. This would allow a broader comparison and generalization of the study findings.

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APPENDICES

Appendix 1: Informed Consent Form

Title of Study: Perspectives of Male Partners Participation in Kangaroo Mother Care: A Cross Sectional Study at Mbagathi Level 5 Hospital

Principal Investigator/and institutional affiliation: Rose Warau, University of Nairobi

Supervisors: Professor Mirriam Wagoro & Dr. Mary Kamau, University of Nairobi

Introduction

My name is Rose Warau, a student at the University of Nairobi pursuing a Master of Science Degree in Midwifery and Obstetrics. I am carrying out a research study entitled: Perspectives of Male Partners Participation in Kangaroo Mother Care: A Cross Sectional Study at Mbagathi Level 5 Hospital

Purpose of the study

The purpose of this study is to explore the perspectives of male partners participation in Kangaroo Mother Care at Mbagathi Level 5 Hospital.

Background of the study

According to the World Health Organization (WHO), globally, over one million outof nearly fifteen million preterm babies born each year die secondary to prematurity complications. Kangaroo Mother Care (KMC) has been recommended as the main intervention for infants to survive. To effectively practice KMC, the WHO recommends the involvement of other family members. Studies have indicated that there is a low uptake of Kangaroo Mother Care among men, hence the need to focus on their perspectives towards the practice.

Consequently, I'm requesting your participation in this study. If you consent to participate, you will be recruited to be part of the respondents who will be

interviewed.

Confidentiality

All information provided will be handled and processed with utmost confidentiality. All information given herein will only be used for purposes of the research study. Your name or anything else that may identify you will not appear anywhere in the study.

Voluntary participation

Your participation in this study is voluntary i.e., on your own free will and without any coercion.

Right of withdrawal

Should you feel/wish to terminate your participation in this study, you have the right to do so at any time without facing any consequences/penalties.

Benefit

This research work is for academic purposes only and if you agree to participate, the information that you will provide will be of great importance to the success of this study. It's hoped that the study findings will be used by the healthcare stakeholders to develop strategies and policies that will facilitate the participation of men in the provision of Kangaroo Mother Care (KMC), as these can bridge the gap where neonates don't benefit from early initiation of KMC due to maternal instability.

Risks

There is no intended health risk or harm for participating in this study. However, if you suffer emotional or psychological distress from participating in this study, the researcher will refer you to a counselor for appropriate help.

Compensation

There will be no monetary gains or any other form of payment to you for participating

in this study.

Contacts

For any queries regarding this research study, kindly contact;

Principal Investigator

Rose Warau

Mobile Number: 0723624643

Email address: rosewarau@gmail.com

Research Supervisors

1. Professor. Miriam Wagoro

Mobile Number: 0722737356

Email address: carole@uonbi.ac.ke

2. Dr. Mary Kamau

Mobile Number: 0727736810

Email address: kwanjira@uonbi.ac.ke

KNH-UoN ERC Secretariat

Secretary

Phone Number: 020-2726300

Email address: uonknh_erc@uonbi.ac.ke

P.O. Box 19676 – 00202

Respondent's Declaration

I have been fully informed about the nature of the study, I know the benefits, and understand that there are no risks involved. I hereby give my consent to participate in this study.

Signature of the participant…….. Date …….

Researcher's Declaration

I have fully disclosed all the relevant information concerning this study to the study respondent.

Signature of the researcher ……. Date ……

Appendix 2: Informed Consent Form (Swahili)

Jina la Utafiti: Mitazamo ya ushirika wa wenzi wa kiume katika utunzaji wa mama wa Kangaroo: Utafiti mtambuka katika hospitali ya Mbagathi daraja la 5

Mpelelezi mkuu/na uhusiano wa taasisi: Rose Warau, mwanafunzi Chuo Kikuu cha Nairobi

Wasimamizi: Profesa Mirriam Wagoro na Daktari Mary Kamau, Chuo Kikuu cha Nairobi

Utangulizi

Jina langu ni Rose Warau, mwanafunzi katika Chuo Kikuu cha Nairobi anayefuata shahada ya uzamili ya sayansi katika ukunga na uzazi. Ninafanya utafiti unaoitwa: Mitazamo ya ushirika wa wenzi wa kiume katika utunzaji wa mama wa Kangaroo: Utafiti mtambuka katika hospitali ya Mbagathi daraja la 5.

Madhumuni ya Utafiti

Madhumuni ya Utafiti huu ni kuchungua mitazamo ya wenzi wa kiume kushiriki katika huduma ya mama kangaroo katika hospitali ya Mbagathi dalaja la 5

Usuli wa Utafiti

Kulingana na shirika la afya duniani, kimataifa, zaidi ya millioni moja kati ya karibu milioni kumi na tano ya watoto wanaozaliwa njiti kila mwaka hufa kutokana na matatizo ya kuzaliwa kabla ya wakati. Utunzaji wa mama wa Kangaroo umependekewa kama uingiliaji kati kuu kwa watoto wachanga waliozaliwakabla ya wakati ili kuishi. Ili kutekeleza vyema huduma ya mama Kangaroo, shirika la afya duniani linapendekeza ushirika wa wanafamilia wengine.

Tafiti imeonyesha kuwa kuna utumiaji mdogo wa matunzo ya mama ya Kangaroo miongoni mwa wanaume, kwa hivyo hitaji la kuzingatia mitazamo yao kuelekea zoezi hili. Kwa hiyo, ninaomba ushiriki wako katika utafiti huu. Ukikubali kushiriki, utaajiriwa kuwa sehemu ya wahojiwa ambao watahojiwa.

Usiri

Taarifa zote zitakazotolewa zitabebwa na kushughulikiwa kwa usiri mkubwa. Habari zote zitakazotolewa humu zitatumika tu kwa madhumuni ya utafiti. Jina lako au kitu kingine chochote ambacho kinaweza kukutambulisha hakitaonekana popote katika utafiti.

Ushirika wa hiari

Ushirika wako katika utafiti huu ni wa hiari, yaani, kwa hiari yako mwenyewe na bila shuruti yoyote.

Haki ya kujiondoa

Ikiwa utahisi au kutaka kusitisha ushiriki wako katika utafiti huu, una haki ya kufanya hivyo wakati wowote bila kukabiliwa na matokeo au adhabu yoyote**.**

Faida

Kazi hii ya utafiti ni kwa madhumuni ya kitaalamu tu na ikiwa unakubali kushiriki, taarifa utakazotoa zitakuwa na umuhimu mkubwa kwa mafanikio ya utafiti huu. Inatumainiwa kuwa matokeo ya utafiti yatatumiwa nawadau wa afya kuandaa mikakati na sera zitakazowezesha utoaji wa huduma ya mama Kangaroo, kwani haya yanaweza kuziba pengo ambapo watoto wachanga hawanufaiki na kuanzishwa mapema kwa huduma ya mama ya Kangaroo kutokana na kukosekana kwa utulivu wa mama mzazi.

Hatari

Hakuna hatari yoyote ya kiafya au madhara yanayokusudiwa kwa kushiriki katika utafiti huu. Hata hivyo, ikiwa utatatizika kihisia au kisaikolojia kwa kushiriki katika utafiti huu, mtafiti atakuelekeza kwa mshauri kwa usidizi ufaao.

Fidia

Hakutakuwa na faida ya muda au aina nyingine yoyote ya malipo kwako kwa

kushiriki katika utafiti huu.

Wawasiliani

Kwa maswali yoyote kuhusu utafiti huu, tafadhali wasiliana na;

Mpelelezi Mkuu

Rose Warau

Namba ya simu: 0723624643

Barua pepe: rosewarau@gmail.com

Wasimamizi wa Utafiti

1. Profesa Miriam Wagoro Kamau

Namba ya simu: 0722737356

Barua pepe: carole@uonbi.ac.ke

2. Daktari Mary Mobile Number: 0727736810

Barua pepe: kwanjira@uonbi.ac.ke

KNH-UoN ERC Sekretarieti

Katibu

Nambari ya simu: 020-2726300

Barua pepe: uonknh_erc@uonbi.ac.ke

Sanduku la barua 19676 – 00202

Tamko la mhojiwa

Nimefahamishwa kikamilifu kuhusu aina ya utafiti, najua manufaa, na kuelewa kwamba hakuna hatari zinazohusika. Kwa hii natoa idhini yangu ya kushiriki utafiti

huu.

Sahihi ya mshiriki…….. Tarehe…….

Tamko la mafia

Nimefichua kikamilifu taarifa zote muhimu kuhusu utafiti huu kwa mhojiwa wa utafiti.

Sahihi ya mtafiti……. Tarehe…….

Appendix 3: Letter of Permission from Medical Superintendent Mbagathi Hospital

Rose Warau Mwangi,

Department of Nursing Sciences,

University of Nairobi.

Email: rosewarau@gmail.com

The Medical Superintendent,

Mbagathi Hospital, P.O. Box 20725-00202,

Nairobi.

RE: REQUEST FOR PERMISSION TO CARRY OUT RESEARCH IN THENEWBORN UNIT (NBU)

I am a second-year postgraduate student at the University of Nairobi, Department of Health Sciences. Am requesting permission to carry out a research study on, "Perspectives of Malepartners participation in Kangaroo Mother Care".

Enclosed is a copy of my student identification card and the research proposal. Your assistance will be highly appreciated.

Yours faithfully,

Rose Warau Mwangi

Appendix 4: In-Depth Interview Schedule

Study Title: Perspectives of Male Partners Participation in Kangaroo Mother Care: A Cross Sectional Study at Mbagathi Level 5 Hospital"

Broad Objective: To explore factors that affect perspectives of male partner's participation inKangaroo Mother Care at Mbagathi Hospital.

This interview schedule forms part of a Master of Science degree in Nursing (Midwifery and Obstetrics) project on Perspectives of male partners participation in Kangaroo Mother Care atthe Newborn Unit in Mbagathi Hospital.

The investigator is Rose Warau Mwangi currently a postgraduate student at the University of Nairobi, School of Health Sciences in the Department of Midwifery and Obstetrics.

At no time during the study, you will be required to identify yourself by name and the information collected will be treated with utmost confidentiality.

To participate in the study, you must have a preterm or low birth weight infant on Kangaroo Mother Care or be eligible for Kangaroo Mother Care even if it has not been initiated.

Interviewer Guide

It's assured that the information that you provide will only be used to gain an understanding of perspectives of male partners participation in Kangaroo Mother Care.

The interview will take place in the Kangaroo Mother Care ward in a quiet observation room.

The interview with each participant will last approximately 50 minutes, and it will be audio-recorded with the participant's consent, and then transcribed and translated for analysis.

The interviews will be identified with the letter “F” (father) to ensure anonymity and the datacollected will be kept confidential.

The information gathered regardless of its nature, will not be used for victimization and will not interfere with services being offered in the hospital.

Interview Schedule Questions

Serial Number ……. Date …….

Time ……..

Section A: Socio-Demographic DataBiographic Data

When were you born?Where do you live?

What is your highest level of education?Are you working?

What is your current job title?Are you married?

Do you have children? How many (including the newborn)?

Section B: Perspectives of male partner participation in Kangaroo Care (Probe on Knowledge, Socioeconomic, and Cultural factors)

To start with, kindly describe what you think about your baby’s weight. Also

Briefly describe how your baby was cared for after birth. Secondly,

Please explain what you understand by Kangaroo Mother Care. In addition,

Please describe the experience of Kangaroo Mother Care (KMC) being done for the baby. (If the father provided KMC, ask about his experience) Thirdly,

Have you encountered any difficulties? If yes, please elaborate, Including,

What was your feeling when you were told your infant has to start Kangaroo Mother Care? In addition,

In your opinion, how do you find practicing Kangaroo Care in the Hospital? also

Kindly explain to me how the ward activities have been about the provision of Kangaroo Care. Further,

Please describe to me the experience of how you have interacted with the health team. To the other question,

Has Kangaroo Mother Care affected your day-to-day life? Please elaborate. also,

In your opinion, is Kangaroo Care useful to you and your Baby? Please elaborate. In addition,

Please describe how helpful you suppose KMC is. (What do you think about KMC for preterm babies?) In conclusion,

Kindly describe what people in your community think about babies who are born before the expected time of delivery. Also

Please tell me if you have experienced other fathers practicing Kangaroo Care in your community. If yes, kindly describe your opinion, In addition,

Please describe what was the perception of the community. Finally,

Would you recommend Kangaroo Care to other fathers? Kindly elaborate on your answer

Section C: Conclusion

Is there anything else about Kangaroo Care you would like to share with me? Thank you for your contribution to this study.

End

Appendix 5: In-Depth Interview Schedule (Swahili)

Kichwa cha Utafiti: Mitazamo ya ushirika wa wenzi wa kiume katika malezi ya mama Kangaroo: Utafiti mtambuka katika hospitali ya Mbagathi daraja la tano

Lengo Pana: Kuchunguza mambo yanayoathiri mitazamo ya wenzi wa kiume ushirika katika huduma ya mama Kangaroo katika hospitali ya Mbagathi.

Mwongozo huu wa mahojiano ni sehemu ya shahada ya uzamili ya sayansi katika uuguzi (Ukunga na Uzazi) mradi juu ya mitazamo ya ushirika wa wenzi wa kiume katika huduma ya mama ya Kangaroo katika kitengo cha watoto wachanga katika hospitali ya mbagathi.

Mpelelezi ni Rose Warau Mwangi, mwanafunzi wa shahada ya uzamili katika Chuo Kikuu cha Nairobi, shule ya sayansi ya afya katika idara ya wakunga na uzazi.

Wakati wowote wakati wa utafiti hutahitajika kujitambulisha kwa jina, kwa kuongeza, taarifa zitakazo kusanywa zitashughulikiwa kwa usiri mkubwa.

Ili kushiriki katika utafiti, ni lazima uwe na moto mchanga aliyezaliwa kabla ya kuhitimu muhula au aliye na uzito wa chini anayestahiki matunzo ya Mama ya Kangaroo.

Mwongozo wa Mahojiano

Umehakikishiwa kuwa maelezo utakayotoa yatatumiwa tu kupata uelewa wa mitazamo ya ushirika wa wenzi wa kiume katika utunzaji wa mama wa Kangaroo.

Mahojiano yatafanyika katika matunzo ya mama ya Kangaroo katika chumba tulivu cha uchunguzi.

Mahojiano na kila mshiriki yatachukua takriban dakika 50, na yatarekodiwa kwa sauti kwa idhini ya mshiriki, na kisha kunukuliwa na kutafsriwa kwa uchambuzi.

Wahojiwa watatambuliwa kwa herufi “F” (baba) ili kuhakikisha kutojulikana, na data itakayokusanywa itawekwa siri.

Habari itakayokusanywa bila kujali asili yake, haitatumika kwa dhuluma na haitaingililia huduma zinazotolewa hospitalini.

Maswali ya Ratiba ya Mahojiano

Nambari ya Serial…… Tarehe…….

Wakati……..

Sehemu A: Data ya kijamii na wasifu

Ulizaliwa lini?

Unaishi wapi?

Elimu yako ya juu ni ipi?

Unafanya kazi? Kama ndiyo,

Cheo chako cha kazi kwa sasa ni kipi?

Umeoa?

Je, una watoto? Wangapi (Pamoja na huyu moto mchanga)?

Sehemu B: Mitazamo ya ushiriki wa wenzi wa kiume katika utunzaji wa Kangaroo (Chunguza maarifa, mambo ya kijamii na kiuchumi, kitaasisi na kitamaduni)

Kwa kuanzia, eleza kwa upole kile unachofikiri kuhusu uzito wa mtoto wako.Pia

Eleza kwa ufupi jinsi mtoto wako alivyotunzwa baada ya kuzaliwa. Pili,

Tafadhali eleza unachoelewa kwa huduma ya mama ya Kangaroo. Zaidi ya hayo,

Tafadhali eleza uzoefu wa huduma ya mama ya kangaroo inayofanywa kwa mtoto. (Ikiwa baba alitoa huduma ya mama ya Kangaroo, uliza kuhusu uzoefu wake). Tatu,

Umekumbana na matatizo yoyote? Kama ndio, tafadhali fafanua, ukijumuisha,

Ulikuwa na hisia gani ulipoambiwa mtoto wako anapaswa kuanza huduma ya mama ya kangaroo? Zaidi ya hayo,

Kwa maoni yako, unapataje huduma ya kangaroo hospitalini? Pia,

Tafadhali nieleze jinsi shughuli za kata zilivyokuwa kuhusu utoaji wa huduma ya Kangaroo. Zaidi,

Tafadhali nielezee uzoefu wa jinsi ulivyowasiliana na timu ya huduma ya afya. Kwa swali lingine,

Huduma ya mama ya Kangaroo imeathiri maisha yako ya kila siku? Tafadhali fafanua. Pia,

Kwa maoni yako, je, utunzaji wa kangaroo ni muhimu kwako na kwa mtoto wako? Tafadhali fafanua. Zaidi ya hayo,

Tafadhali eleza jinsi unavyodhania huduma ya mama ya kangaroo ni ya manufaa. (Una maoni gani kuhusu huduma ya mama ya Kangaroo kwa watoto waliozaliwa kabla ya wakati?) Hitimisho,

Eleza kwa upole watu katika jamii yako wanafikiri nini kuhusu watoto wanaozaliwa kala ya muda uliotarajiwa wa kujifungua. Pia,

Tafadhali niambie kama umepata uzoefu wa utunzaji wa Kangaroo wa baba wengine katika jamii yako. Kama ndio, tafadhali eleza maoni yako. Zaidi ya hayo,

Tafadhali eleza mtazamo wa jamii ulivyokuwa. Hatimaye,

Ungependekeza utunzaji wa Kangaroo kwa akina baba wengine. Tafadhali fafanua jibu lako.

Sehemu C: Hitimisho

Kuna kitu kingine chochote kuhusu huduma ya mama ya kangaroo ambacho ungependa kushiriki nami?

Asante kwa mchango wako katika utafiti huu. **Mwisho**

Appendix 6: Approval Letter from KNH-UoN Ethics Committee

UNIVERSITY OF NAIROBI
FACULTY OF HEALTH SCIENCES
P O BOX 19676 Code 00202
TELEGRAMS: varsity
Tel:(254-020) 2726300 Ext 44355

KNH-UON ERC
Email: uonknh_erc@uonbi.ac.ke
Website: http://www.erc.uonbi.ac.ke
Facebook: https://www.facebook.com/uonknh.erc
Twitter: @UONKNH_ERC https://twitter.com/UONKNH_ERC

KENYATTA NATIONAL HOSPITAL
P O BOX 20723 Code 00202
Tel: 726300-9
Fax: 725272
Telegrams: MEDSUP, Nairobi

KENYATTA NATIONAL HOSPITAL APPROVED 28 SEP 2023 KNH/UoN-ERC P.O. Box 20723 - 00202, NAIROBI

Ref: KNH-ERC/A/489

28th September, 2023

Rose Warau Mwangi
Reg. No. H56/40602/2021
Dept. of Nursing Sciences
Faculty of Health Sciences
University of Nairobi

Dear Rose,

ETHICAL APPROVAL-RESEARCH PROPOSAL: PERSPECTIVES IF MALE PARTNERS PARTICIPATION IN KANGAROO MOTHER CARE: A CROSSECTIONAL STUDY AT MBAGATHI LEVEL 5 HOSPITAL (P535/06/2023)

This is to inform you that KNH-UoN ERC has reviewed and approved your above research proposal. Your application approval number is **P535/06/2023.** The approval period is 28th September 2023 –27th September 2024.

This approval is subject to compliance with the following requirements:

i. Only approved documents including (informed consents, study instruments, MTA) will be used.
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by KNH-UoN ERC.
iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to KNH-UoN ERC 72 hours of notification.
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to KNH-UoN ERC within 72 hours.
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to KNH-UoN ERC.

Appendix 7: Approval Letter from Nairobi City County Government

NAIROBI CITY COUNTY
www.nairobi.go.ke

HEALTH, WELLNESS AND NUTRITION

Office of the County Chief Officer – Medical Services

REF: NCCG/HWN/REC/438 **DATE: 12th October 2023**

ROSE WARAU MWANGI
UNIVERSITY OF NAIROBI
NAIROBI

Dear Ms. Rose,

RE: RESEARCH AUTHORIZATION

This is to inform you that the Nairobi City County – County Health Research Ethics Committee (REC) reviewed the documents on the study titled "PERSPECTIVES OF MALE PARTNERS PARTICIPATION IN KANGAROO MOTHER CARE: A CROSSECTIONAL STUDY AT MBAGATHI LEVEL 5 HOSPITAL"

I am pleased to inform you that you have been authorized to carry out the study in Nairobi County. The researcher will be required to adhere to the ethical code of conduct for health research in accordance with the Science Technology and Innovation Act, 2013 and the approval procedure and protocol for research for Nairobi.

On completion of the study, you will submit one hard copy and one copy in PDF of the research findings to the REC. In addition, you required to disseminate the research findings to health sector in liaison with the county REC. By copy of this letter, Chief Executive Officer – Mbagathi Hospital is to accord you the necessary assistance to carry out this research study.

Yours sincerely,

DR. IRENE MUCHOKI
CHIEF OFFICER MEDICAL SERVICES &
Ag. CHIEF OFFICER NUTRITION, WELLNESS & SCHOOL FEEDING PROGRAM

Cc: Chief Officers – Public Health and Health Facilities
Chief Executive Officer – Mbagathi Hospital

LET'S MAKE **NAIROBI** WORK

Appendix 8: Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **740575**

Date of Issue: **06/October/2023**

RESEARCH LICENSE

This is to Certify that Ms.. ROSE WARAU MWANGI of University of Nairobi, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: PERSPECTIVES OF MALE PARTNERS PARTICIPATION IN KANGAROO MOTHER CARE: A CROSSECTIONAL STUDY AT MBAGATHI LEVEL 5 HOSPITAL for the period ending : 06/October/2024.

License No: **NACOSTI/P/23/30399**

740575

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

Appendix 9: Study Timeline

MONTH / ACTIVITY	NOV 2022	DEC 2022	JAN 2023	FEB 2023	MAR 2023	APR 2023	MAY 2023	JUNE 2023	JULY-SEP 2023	OCT 2023
Problem Identification, literature review, and proposal writing										
Proposal submission and approval										
Presentation to KNH/UoN Ethics and Research Committee										
Data Collection										
Data processing										
Data Analysis										
Report writing										
Defense of project report										
Dissemination of information and publication										

Appendix 10: Study Budget

Category	Item	Unit	Quantity	Units Cost	Total Cost(Ksh)
Personnel	Pretest: Transport and lunch	1500	1day	1	1500
	Data Collection: Transport and lunch	1500	14 days	1	21000
Consultancy	Data transcriber	1	30000	30000	30000
Materials and Supplies	Pencils	1 Dozen	12	200	200
	Pens	1 Dozen	10	100	100
	Erasers	2	2	10	20
	Stapler and staple pins	1	1	500	500
	Sharpener	1	1	20	20
	Calculator	1	1	1000	1000
	USB Flash Disk	1	1	1000	1000
	Paper Punch	1	1	1000	1000
	Foolscaps papers	100	1 ream	500	500
	Printing Papers	100	2 reams	500	1000
	Audio recorder	1	1	5000	5000
Operating Cost	Proposal Printing	40 Pages	1	20	800
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