ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF NURSING AND MIDWIFERY

DEPARTMENT OF NURSING

PERCEIVED ENABLERS AND BARRIERS OF KANGAROO MOTHER CARE AMONG MOTHERS AND NURSES IN NEONATAL INTENSIVE CARE UNIT OF TIKUR ANBESSA SPECIALIZED HOSPITAL, ADDIS ABABA, ETHIOPIA, 2020 G.C

BY: MEKURIYAW GASHAW (BSC IN NURSING)

ADVISORS: Dr. RAJALAKSHIMI MURUGAN (PHD, ASSISTANT PROFESSOR)

Mr. MEKONEN ADIMASU (BSC, LECTURER)

A RESEARCH THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY POSTGRADUATE STUDIES IN COLLEGE OF HEALTH SCIENCES, SCHOOL OF NURSING AND MIDWIFERY, DEPARTMENT OF NURSING FOR THE IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF SCIENCE IN PEDIATRICS AND CHILD HEALTH NURSING

SEP, 2020

ADDIS ABABA, ETHIOPIA

ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF NURSING AND MIDWIFERY

DEPARTMENT OF NURSING

MASTER OF SCIENCE RESEARCH THESIS

NAME OF INVESTIGATOR	**MEKURIYAW GASHAW (BSC IN NURSING)**
NAME OF ADVISOR(S)	**Dr. RAJALAKSHIMI MURUGAN (PHD, ASSISTANT PROFESSOR)** **Mr. MEKONEN ADIMASU (BSC, LECTURER)**
FULL TITLE OF THE RESEARCH THESIS	**PERCEVED ENABLERS AND BARRIERS OF KANGAROO MOTHER CARE AMONG MOTHERS AND NURSES IN NEONATAL INTENSIVE CARE UNIT OF TIKUR ANBESSA SPECIALIZED HOSPITAL, ADDIS ABABA, ETHIOPIA**
DURATION OF STUDY	**FEB - SEP 2020 G.C**
STUDY AREA	**TIKUR ANBESSA SPECIALIZED HOSPITAL, ADDIS ABABA, ETHIOPIA**
ADDRESS OF INVESTIGATOR	**E-mail. meku21gasha@gmail.com** **Phone no: +251961594307**

APPROVAL SHEET

ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCE SCHOOL OF NURSING AND MIDWIFERY

I, the undersigned MSc student, declare that I have submitted my original work on a title perceived enablers and barriers of kangaroo mother care among mothers and nurses at Neonatal Intensive Care Unit of Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia, 2020.

Submitted by: Mekuriyaw Gashaw _____ Oct /2020

Name of investigator Signature Date

This thesis work has been submitted to the school of graduate studies of Addis Ababa University, college of health science, school of nursing and midwifery with my approval as an advisor.

Approved by: Dr. Rajalakshimi Murugan (Phd, assistant professor) _____Oct/2020

Name of Major Advisor Signature Date

Mr. Mekonen Adimasu (Bsc, lecturer) _____Oct/2020

Name of Co-Advisor Signature Date

APPROVAL BY THE BOARD OF EXAMINATION

This thesis by Mekuriyaw Gashaw Asmare is accepted in its present form by the board of examiners as satisfying thesis requirement for the degree of masters in pediatrics and child health nursing.

Examiner: Dr. Yirdaw Techebale (Phd, assistant professor) _____Oct/2020

Name of examiner Signature Date

Research Advisors**:**

Dr. Rajalakshimi Murugan (Phd, assistant professor) _____Oct/2020

Name of Major Advisor Signature Date

Mr. Mekonen Adimasu (Bsc, lecturer) _____Oct/2020

Name of Co-Advisor Signature Date

DECLARATION

I the undersigned declare that, this thesis is my original work, has not been presented for a degree in this or any other University and all sources of materials used for this thesis have been recognized through citation. Every effort has been made to avoid plagiarism in the preparation of this thesis.

Name: Mekuriyaw Gashaw Signature: _____ Date: _____

This thesis work has been submitted for examination with my approval as University advisor Dr. Rajalakshimi Murugan (Phd, assistant professor)

Signature: _____

Date: _____

Mr. Mekonen Adimasu (BSc, lecturer)

Signature: _____

Date: _____

ACKNOWLEDGMENT

First and foremost, I would like to thank the Almighty God for providing me with all my necessities and made me and my family healthy. The intercessions of Saint Mary, all Angels and Saints have also helped me throughout my entire life.

I would like to express my heart-felt gratitude to my advisors Dr. Rajalakshimi Murugan and Mr. Mekonen Adimasu for their support and enriching comments from proposal development until thesis writing and development.

My sincerely thanks extend to Addis Ababa University for the chance to develop this thesis and Samara University for sponsoring this master program.

Lastly but not least, my heart-felt thanks goes to participant mothers in kangaroo room at NICU of TASH and the nurses working at neonatal intensive care unit of TASH.

ACRONYMS AND ABBREVIATIONS

AAU	Addis Ababa University
FMOH	Federal Ministry of Health
HCW	Health Care Workers
HMIS	Health Management and Information System
KMC	Kangaroo Mother Care
LBW	Low Birth Weight
NICU	Neonatal Intensive Care Unit
SSC	Skin to Skin Contact
TASH	Tikur Anbessa Specialized Hospital
WHO	World Health Organization

TABLE OF CONTENTS

LIST OF FIGURE AND TABLES

ABSTRACT

Background: Kangaroo mother care is care of preterm and low birth weight infants with early, continuous and prolonged skin- to-skin contact between the mother and the baby, and with exclusive breastfeeding. It is recommended for the routine care of newborns weighing 2000 g or less at birth. It improves outcomes of premature and low birth weight infants. Even though kangaroo mother care is now recognized by global experts as an integral part of essential newborn care, the adoption and implementation of the kangaroo mother care is still challenging. Despite the high impact and apparent feasibility of kangaroo mother care, currently, only a few preterm babies in low-income countries have access to this intervention; coverage of kangaroo mother care has remained low.

Objective: To explore perceived enablers and barriers of kangaroo mother care among mothers and nurses in neonatal intensive care unit of Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia.

Methods: qualitative phenomenological study design was used in the study. A semi-structured in-depth interview was applied to explore the perceived enablers and barriers of kangaroo mother care among mothers and nurses in Neonatal Intensive Care Unit of TASH. A total of 13 mothers and 7 nurses were included in study with in-depth interview from May 2020 - July 2020 and thematic analysis was conducted.

Result: The study explored major health staff and setting related, medical condition related, family support related, community support related and caregiver related enablers and barriers of practicing kangaroo mother care among mothers and nurses. Mothers reported that lack of understanding of KMC by their family and the presence of family responsibility and workload were barriers to practice KMC. Lack of awareness of KMC by community, social practice and traditional adaptation were also mothers reported barriers. In addition mothers also reported that poor supervision and follow-up, limited resource especially sanitation resource were the major barriers related to health staff and setting. The presence of back pain and fatigue during

kangaroo care also was the barriers reported by mothers. Nurses also reported that scale- up of kangaroo care was influenced by absence of training, poor attention given by managers and administrative, shortage of rooms and facilities workload and time shortage related to limited professionals in the ward.

Conclusion and recommendation: This study offers how different factors influence KMC utilization among mothers with preterm infants and nurses working at NICU. The finding indicates that a complex array of barriers and enablers determine a mother's and nurses ability to provide KMC. To improve mothers' and nurse's performance and promote the health of preterm infants, supports, such as family, community, and health professional support are required. Addressing these factors through policy changes and hospital interventions is essential to enabling optimal neonatal care service.

Key words: kangaroo mother care, enablers, barriers, low birth weight, preterm, neonatal intensive care unit.

CHAPTER 1: INTRODUCTION

1.1 Background

Kangaroo mother care (KMC) is care of preterm and Low Birth Weight (LBW) infants carried skin-to-skin contact with the mother. Its key features include early, continuous and prolonged skin- to-skin contact between the mother and her low birth weight infant, until at least the 40th week of postnatal age, and with exclusive breastfeeding and proper follow up. It is recommended for the routine care of newborns weighing 2000 g or less at birth, and should be initiated in health- care facilities as soon as the newborns are clinically stable(1,2). Kangaroo Mother Care (KMC) is a strategy created and developed by a team of pediatricians in the Maternal and Child Institute in Bogota, Colombia, in 1978(2).

It was initially developed as an alternative to inadequate and insufficient incubator care for those preterm and LBW infants(3). The first trial of KMC was launched to address over-crowding, cross-infection, poor prognosis and extremely high premature and LBW mortality rates. The goals of the trial were to improve outcomes of premature and LBW infants and reduce the length and cost of hospitalization(2).

Current evidence shows that KMC improves survival of preterm babies by 40%, reduces infection by 44%, reduced the risk of hypothermia by 66%, increases exclusive breastfeeding by 20%, reduces stress in the baby, promotes mother- infant bonding, and increases maternal confidence. As a result KMC is now recognized by global experts as an integral part of essential newborn care(4).

Hypothermia becomes a major cause of death by its own and is the most important risk factor in neonatal deaths, especially among low birth weight babies and premature neonates. One of the main reasons that LBW and premature babies are at greatest risk of illness and death is that they lack the ability to control their body temperature i.e., they get cold or hypothermic very quickly and die within the first 12 hours after delivery. So, adherence to thermal control standards is a significant concern (2,5).

In November 2015, The World Health Organization (WHO) issued recommendations for the care of preterm infants with kangaroo mother care. KMC must not be confused with routine skin-to-skin care (SSC), which is recommended immediately after delivery for every baby as part of routine care to ensure that all babies stay warm in the first two hours of life (6).

KMC can be implemented in various facilities at different levels of care. However, the potential effect of KMC is greatest in low-income countries, where well equipped facilities and skillful staffs are limited. In well-resourced neonatal care units, it still enhances mother-infant bonding, breast feeding and allows for rationalization of resources by freeing up incubators for sicker infants(7).

Kangaroo Mother Care (KMC) was first introduced in Ethiopia in 1996 at the Black Lion Hospital. Since then, KMC services have been expanded to other hospitals and health facilities at all levels. Recently, KMC was included in a series of policy documents issued by the Federal Ministry of Health (FMOH), the Newborn and Child Survival Strategy, the Health Sector Transformation Plan, and the National Healthcare Quality Strategy. The target of those policies was set to reach 80% of preterm babies will receive KMC by the year 2020(8).

1.2. Statement of problem

More than 20 million infants of low birth weight (LBW) are born worldwide annually with over 90% being born in developing countries. This imposes a heavy burden on healthcare and social systems in developing countries as medical care of these infants is complex and requires costly infrastructure and highly skilled staff. In order to combat these problems, Kangaroo mother care (KMC), a simple method of care for LBW infants, was developed(7,9)

Despite of, known benefits are already proven, the development of the kangaroo mother care at NICU is still challenging. Separation of mothers from their newborn infants at birth has become standard practice, despite the evidence that this may have harmful effects. Clinical conditions of the newborn and standards of units, such as restricted visiting hours lead to the separation of the baby from his/her mother and disrupt early maternal- infant interaction and breastfeeding to a significant extent and negatively influencing the adherence to the Kangaroo Mother Care(10,11).

In most African countries there are few KMC units, if any, these are mainly in capital cities and have no guidelines to support the implementation of KMC. Only a few preterm babies in low-income countries have access to this intervention; coverage of KMC has remained low and implementation has largely been limited to specialized hospitals. Even at the places where KMC is being practiced in the facility, the numbers of hours of KMC remain low. Average duration of KMC varies from 3-5 h/day(11–13).

Although the evidence of positive outcomes has been available and a WHO practical manual of KMC exists since 2003, the coverage remains low and the universal coverage target for 2030 appears unrealistic(14,15). Even though most newborns were immediately dried with a towel/cloth, failure to place the newborn in skin-to-skin contact with the mother was the major contributor to the low coverage of KMC and the occurrence of hypothermia becomes high(5).

The study done in selected hospitals in Addis Ababa indicates that the prevalence of neonatal hypothermia is 64% and accounts 37% of neonatal death in Ethiopia. This indicates the

problem of hypothermia remains a challenge and poor kangaroo mother care practice is determinant factors for hypothermia in Ethiopia(16).

In Ethiopia, KMC is provided at some tertiary, secondary, primary level facilities, and some private hospitals and only 25% of preterm babies receive KMC, this indicates initiation of facility-based KMC remains low. Although, KMC indicator has been included in the Health Management and Information System (HMIS) in 2017, currently no facilities have been nominated as centers of excellence for KMC, but Tikur Anbessa Specialized Hospital (TASH) continues to lead KMC advocacy efforts(8).

Shortage and poor distribution of well- trained health workers to care for LBW babies and support the practice of KMC, lack of adequate mentorship and supervision mechanisms, lack of knowledge and awareness of health workers, inadequate space in facilities for the performance and monitoring of KMC, presence of poor referral and transport systems, poor quality of KMC delivery and weak quality improvement measures were reported as a major barriers among health care workers to scale up the uptake of KMC(17,18).

Recently, the Ministry of Health (MOH) and WHO released a call for proposals to identify efficient ways to scale up KMC in Ethiopia. In 2016, the Ministry of Health (MOH), regional health bureaus, and its partners raised awareness about KMC during World Prematurity Day under the motto "Kangaroo Mother Care is an Effective Method of Treating Premature Babies''(8).

Still there are some gaps in training, mentoring, providing support, and overall scale-up of KMC. KMC activities in different health facility lack funding partly due to the belief that there are no costs involved to practice KMC. However, resources are needed to conduct training, purchase supplies, designate physical space for KMC in health facilities, and assign a nurse to the KMC space. There is a gap in terms of education and mentoring of caregivers, given that some caregiver perceive KMC as an inferior alternative to incubators(8). Little was known about mothers and nurses perceived enablers and barriers of KMC in Ethiopia. The study explored the perceived enablers and barriers of KMC among mothers and nurses at NICU of TASH.

1.3. Significance of the study

Identifying enablers and barriers to KMC practice have implications for long-term health of mother and child. Integration of KMC interventions into health systems requires caregivers and nurses critical role in the adoption, diffusion, and assimilation of KMC. Because preventing and treating newborn hypothermia is relatively easy, addressing this widespread challenge might play a substantial role in a reduction of child mortality.

The finding will have greater input to program managers and policy makers for designing, proper implementation and evaluation programs on reduction of neonatal mortality and improvement of newborn care. In addition, the study will help to improve quality of newborn care in the nursing profession specifically thermal protection by low - tech preventive measures. The finding will also provide the information to health professionals/health facility administrator to help alter policies and programs in their health facility. The finding will also provide information for the health policy planners/FMOH on how to facilitate improvements in the implementation of KMC. The result will initiate other researchers to deal the perceived enablers and barriers of KMC at large and to develop interventions to facilitate KMC uptake and practice.

CHAPTER 2. LITERATURE REVIEW

2.1. Mothers perceived enablers to practice KMC

KMC is the most reliable method for premature LBW babies to keep warm, to improve the survival and to reduce the length and cost of hospitalization. Based on increasing evidence of the positive effect and outcomes of KMC, it has been rapidly accepted worldwide(19).

A systematic review of caregivers perspective towards barriers and enablers of health system adoption of kangaroo mother care identified positive perceptions among mothers, fathers, and families about the potential benefits of KMC intervention promoted KMC practice. Mothers perceived that performing KMC calmed their baby and observed that their newborns were sleeping longer, less anxious, more restful, more willing to breastfeed, and happier in SSC position than in an incubator. They also stated that KMC helped them to recover emotionally and physically, as well as create a family bond and felt useful(20–22).

In a report on an international workshop on kangaroo mother care, parents described that the principal enablers to practice KMC were social support from family members, friends, and staff along with mother-infant bonding and an increase in mothers' sense of confidence and empowerment. Additionally understanding of the efficacy of KMC and the belief that infants enjoy KMC were the major enablers(23).

Another study done on maternal experiences on kangaroo mother care at special baby care unit of a tertiary health institution in Southern Nigeria reviled that KMC had increased maternal confidence and early discharge. This study found that mothers who provided KMC for their preterm infants felt more assertive and believed that they had developed better mothering skills and facilitate maternal-infant attachment(7).

Interviewed mothers at qualitative study on mothers' experiences with premature neonates about kangaroo mother care at NICU of a training hospital in Yazd City, Iran described their feeling as skin to skin contact reduced cesarean pain, increased sense of satisfaction; enhance motherhood feeling and tranquility and alleviation of stress and anxiety. They perceived that

decreased crying, stable temperature, normal breathing on their chest, and properly suckling and sleeping for a longer time as physically and mentally wellness of infants(24).

Mothers stated that free medical service enabled them to stay at the health facility longer as needed. They believed that KMC decreased the cost of hospital bills and reduce prolonged hospital stay and assumed that it was a cheaper option than conventional incubator care(20,22). Related to health service delivery system mothers reported that the provision of private spaces, a quiet atmosphere, and dedicated resources promoted them to accept and uptake KMC properly. They believed that privacy screens or private rooms allowed separation from other patients and offered a quieter atmosphere for them to conduct KMC(20,21).

2.2. Mothers perceived barriers of practicing KMC:

Report on an international workshop on kangaroo mother care identified different categories of caregivers' perceived barriers to KMC. Fear of hurting the infant, pain/fatigue during KMC, and difficulty of adhering to the kangaroo position while sleeping and in high temperatures, feeling forced to take on KMC, lack of support from staff and negative attitudes on the part of staff were the major identified experience related barriers. They also expressed that these barriers were further complicated by resource-related barriers such as a lack of knowledge of KMC, difficulty in accessing the health facility, deprived hospital environments and shortage of rooms in the facilities. Additionally culture-specific beliefs and disapproval by the community were a barriers(23).

A qualitative study conducted to explore barriers and enablers of practicing kangaroo mother care in rural Sindh, Pakistan identified socio-cultural norms and practice as a barrier to practice KMC properly. They were afraid that they might face ridicule if mothers spend most of time in caring of their newborns. Culturally they are expected to take care of household chores along with taking care of their newborns. This mother's obligation to perform household chores is one critical barrier to KMC practice and many mothers found KMC as a burden. Mothers also expressed that other female family members oppose practicing KMC since it will result in shifting of mother's workload to them, particularly if there is no female in the family to support the household(25).

A study done on barriers to implement kangaroo mother care among post- natal mothers with premature and low birth weight babies identified difficulty in sitting and waiting in the KMC position for a long time were a major physical barriers to implement KMC. Additionally fear of handling the small infants was psychological barrier against implementing KMC and some mothers thought that KMC causes pain to their babies(19).

A systematic review of caregiver perspectives towards barriers and enablers of health system adoption of kangaroo mother care classified the barriers into diferent themes. **Caregiver buy-in and bonding**: it indicates the perceptions of mothers about KMC, belief in the benefits of KMC, and perceptions of bonding. Mothers explained that healthcare workers could not clearly explain the information about the procedures and benefits of KMC. They were simply told to perform KMC and they felt that KMC was forced upon them. Another barrier is that caregivers perceived that their newborn did not enjoy KMC as they observed that their infant became irritable especially during hot climate(20,22).

Social support for caregivers: Mothers mentioned that they did not feel supported by their families or communities, even from healthcare professionals. They reported that mothers-in-law and grandmothers did not find KMC to be an appropriate method to care for newborns. Resistant to family participation in caring of the baby by health professionals while in the hospital, health care workers disrespect of family privacy and lack support from society felt discomfort about performing KMC(12).

Caregiver time for KMC adoption: The lengthy time needed to provide KMC was reported by mothers as a barrier for practicing KMC. KMC guidelines recommends continuous skin to skin contact care until the newborn reaches a certain weight usually 2000 g and certain age usually 2 weeks after birth, or no longer tolerates it. They expressed that it was difficult to perform KMC for long duration if the mother was depressed, lonely, or had medical problem(12).

Caregiver medical concerns: Mothers reported that the clinical condition of their premature neonates and medical condition of themselves act as a barrier for KMC uptake. Some mothers expressed that KMC made them fatigue, depressed, and increases postpartum pain. Some mothers experienced discomfort when sleeping upright with a newborn in KMC position(12).

A literature review of parents' experiences of kangaroo mother care indicates that mothers had fear of harming their baby when providing KMC and they felt negative towards NICU because of too much technical equipment, rooms that are too small and uncomfortable beds to sleep on. Mothers said that staffs did not have enough time to help us to position the infant on the mother's chest, which was a barrier to providing KMC for their infant(21).

Related to health service delivery system mothers reported that lack of privacy room to remain in the hospital with the newborn and lack of KMC resources (chairs, beds, linens, curtains, KMC wraps, etc.) at facilities were obstacles to KMC adoption. Mothers felt uncomfortable and exposed as staff continued to come in and out during KMC(20).

2.3. Nurses perceived enablers of practicing KMC:

Experience and commitment of senior nurses, exposure to pre- service KMC training and observing the benefits of KMC in practice were enablers of practicing KMC among nurses. Commitment from hospital directors and senior staff can facilitate the allocation of space, staff and equipment. Creating a KMC network among health facilities and professionals can support and scale-up KMC(23).

A study done on barriers and enablers of practicing kangaroo mother care in rural Sindh, Pakistan identified that support from health providers and managers with receptive and supportive idea to implement KMC in health facility, continuous practice of KMC at home with support from family as well as from community were major enablers of practicing KMC(25).

2.4. Nurses perceived barriers of KMC practicing:

The most common barriers for nurses were the absence of guidelines and quality training, increased workload, reduced resources and support, doubts about the efficacy and benefits of KMC, and concerns related to patients' medical conditions. Lack of space and poor privacy in hospitals, in- flexible visitation policies for parents, insufficient staff and leaders in the field, absence of KMC champions, non- coverage of KMC in university curricula, and challenges with record keeping were also another barriers(23).

A systematic review of barriers and enablers of kangaroo mother care implementation from nurses perspective identified different enablers and barriers. **Buy-in and bonding related barriers:** Lack of belief in kangaroo mother care and limited knowledge of KMC, reluctance by management to allocate dedicated space and staffing, poor supervision, high turnover of trained leaders for better positions affect the uptake of kangaroo mother care among health care workers(22,26).

Support and empowerment related barriers: Health-care workers were less motivated to practice KMC, when there is lack of prioritizing kangaroo mother care by leadership, staffing shortages and staff turnover, lack of effective coordination and communication between staff and lack of support and participation from parents (22,26).

Time concern related barriers: Workload of health care workers did not allow sufficient time to dedicate to teaching and practicing kangaroo mother care especially in facilities with staffing shortages. Nurses believed that training the mothers to do SSC would take more time than they had available, and they concerned about not having time to attend to their other newborn patients in the NICU (22,26).

Medical concerns related barriers: Many HCWs had a fear of hurting the baby during SSC while the baby was with catheters, or for intubated infants. Nurses were also not comfortable recommending KMC for infants under 1000 g(26).

Socio-cultural norm related factors: Parental and familial adherence to traditional newborn practices such as early bathing and wrapping infants soon after birth was reported as a barrier to kangaroo mother care. In areas in which carrying the baby on the back was common, it seemed strange to place the baby on the front and it was considered unclean to have the mother carry the baby on her chest without a diaper. Cultural need of short duration of discharge making it more difficult to keep mother/infant pairs in the hospital for extended durations of time (22,26)

A study done on barriers and enablers for practicing kangaroo mother care (KMC) in rural Sindh, Pakistan identified lack of training of health workers, lack of facility readiness to implement KMC and socio-cultural norms and practice as major barriers to scale-up KMC(25).

Study of qualitative approach done on management of challenges for best practices of the kangaroo mother care in the NICU of public maternity hospital in the city of Rio de Janeiro explored the lack of time was a limiting factor for the practice of the Kangaroo Mother related to work overload, scarcity of human resources and limited availability of the professional. They dedicate themselves as care of the premature infants and breastfeeding is time-consuming care. They consider themselves to be poorly trained and inexperienced in the application, technical insecurity and lack of knowledge undermine professional adherence to best neonatal practices(10)

A study done on barriers to skin-to-skin care during the postpartum stay among nurses working on the postpartum unit of an urban academic medical center in the Mid-Atlantic region of the United States identified visitors in the room, mother too groggy, mother does not know it's important, mother concerned about modesty, mother finds it inconvenient, and others want to hold the baby were the major barriers(27).

A qualitative study undertaken to determine the barriers, enablers and potential solutions to implementation of SSC at birth in healthy newborn infants in a level III neonatal-care facility in Bangalore, India identified that the major barriers were lack of nurses, time constraint, difficulty in deciding on eligibility for SSC, safety concerns, interference with clinical routines, and interdepartmental issues. Recall of an adverse event during SSC was also a major barrier(28).

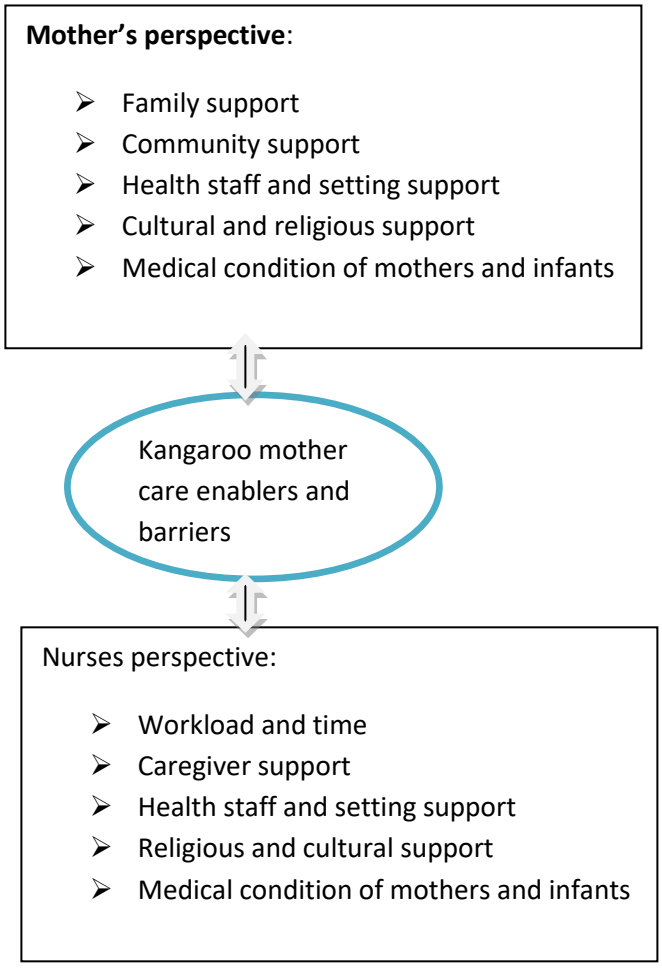

Figure 1 Conceptual framework of perceived barriers and enablers of kangaroo mother care from caregiver and nurses perspectives (12, 20, 21, 22, 26).

CHAPTER 3: OBJECTIVE

3.1: General Objective

- The main aim of this study was to explore the perceived enablers and barriers of KMC among mothers and nurses in NICU of TASH, 2020

3.2: Specific Objectives

The specific objectives were:

- To explore perceived enablers of KMC among mothers attending KMC in NICU of TASH, 2020
- To explore perceived enablers of KMC among nurses working in NICU of TASH, 2020
- To explore perceived barriers of KMC among mothers attending KMC in NICU of TASH, 2020
- To explore perceived barriers of KMC among nurses working in NICU of TASH, 2020

CHAPTER 4: METHODS

4.1: Study Area

The study took place at TASH one of governmental hospital which is nominated as centers of excellence for KMC and continues to lead KMC advocacy efforts since, kangaroo mother care was first introduced in Ethiopia in 1996. TASH is tertiary level referral and teaching hospital which delivers comprehensive care to sick neonates. All preterm neonates weighing <1500 grams born in the hospital will be sent to KMC unit. TASH has an average NICU admission of 240 Neonates per month which is high as compared to other hospitals. The neonatal unit has experience in the Kangaroo mother method. Kangaroo mother care is one of the basic and routine types of care for low birth weight infants for thermal control in the unit. The hospital has only one kangaroo room and three beds for kangaroo mother care and a total of 36 working nurses at NICU.

4. 2: Study Period

The study was conducted from Feb 2020 - Sep 2020 in TASH.

4.2: Study Design

Qualitative study design with in-depth interview was applied.

4.3. Source Population

The source population included all mothers of neonates admitted to NICU in TASH and all nurses working at NICU of TASH.

4.3.1: Study Population

The study populations included mothers of premature and low birth weight neonates attending KMC at NICU in TASH and nurse working in KMC unit.

4.4. Inclusion and exclusion criteria

4.4.1. Inclusion criteria: Mothers of premature and low birth weight infants admitted to NICU of TASH and who have been practicing KMC and nurses working at KMC unit were included in the study.

4.4.2. Exclusion criteria: Mothers unwilling to provide voluntary informed consent and unwilling nurses were excluded in the study.

4.5: Sample Size and Sampling Procedure

Convenience sampling strategy based on availability of study participants was applied. The number of participants chosen for this study was not decided in advance because the size of the sample was determined by redundancy/saturation. Eligible mothers of babies receiving KMC during the study period and nurses working at KMC unit were approached for an interview, and those agreeing to participate in the study were provided informed consent.

Mothers and nurses received information about the study verbally and were assured for data confidentiality. A study acquired verbal consent from participating mothers and nurses before each interview. Interviews were conducted in a private room in the hospital between May 2020 and July 2020. The Interview was conducted in Amharic, audio-recorded, and taken between 13 and 37 minutes. Interview was conducted until information saturation was reached. Saturation occurs if there was no data variation, no new answer or information to the given question.

4.6: Study variables

4.6.1. Dependent variables: Perceived enablers and barriers of KMC.

4.6.2 Independent Variables: Support (family, community, heath staff and setting, and cultural and religious), medical conditions of mothers and infants, caregiver support, workload and time.

4.7: Operational Definitions

KMC Perception: - The mothers insight and experience about the practice of KMC with their baby.

KMC Enabler: Something that produce a desired effect in mother's mind to do well for the advantage of their infants and practice KMC adequately and properly.

KMC Barrier: Obstacles hindering mothers to practice KMC to their neonates.

4.8: Data Collection Procedure

The study applied a qualitative study design and thematic analysis approach based on semi-structured in-depth interviews with kangaroo mothers of preterm infants in the kangaroo room in NICU and with nurses working at NICU in TASH. Interview was conducted using an interview guide. The interviewer probed mothers and nurses on perceived barriers and enablers to practice KMC.

Open-ended questionnaires were developed with potential probes to achieve study objectives from different reviews that is done before and tested. The questionnaires were prepared in English and then translated to Amharic language for interview and again retranslated back to English to know consistency. Informed oral consent was obtained from all individual study participants and data collection method was one-to-one in-depth interviews. In addition to taking notes, digital tape recorder was used with the consent from participants. Data collection was continued until saturation occurred and no new information arises.

4.9: Trustworthiness of the data

4.9.1 Credibility

To ensure the credibility or internal validity of the study; prolonged engagement of investigator, iterative questioning in data collection dialogues, examination of previous research to frame findings and peer examination was applied. Tape recording and field notes were also used during data collection.

4.9.2 Transferability

To ensure applicability or transferability of the study; data was collected until saturation exists and there was thick description of data. Provision of background data to establish context of study and detailed description of phenomenon in question was made.

4.9.3 Dependability

To ensure dependability or consistency of the study; the research steps from the start of a research project to the development and reporting of the findings was transparently described. The records of the research path were kept throughout the study and in-depth/detail methodological description was made.

4.9.4 Confirmability

To ensure confirmability of the study; audit trail or details of the process of data collection, data analysis, and interpretation of the data was made.

4.10: Data Analysis Procedure

Qualitative data analysis was performed by identifying the themes. Coding process was done using ATLAS.Ti coding software version 7.5.16 to organize and support the coding process. All interviews were transcribed verbatim in Microsoft Word from audio-recordings and translated to English. Detailed interview memos and field notes were reviewed continuously throughout data collection. Interview transcripts, also reviewed continuously through the interview period, were organized and analyzed to identify common themes. Following thematic analysis approach the transcripts were read repeatedly to become familiar with the data, developing initial codes of interest. These codes were then categorized into broad categories and sub-categories.

4.11: Ethical Consideration

Ethical clearance was obtained from Ethics Review board of, school of nursing and midwifery. Supportive letter was written from department of nursing to NICU ward of TASH. Oral informed consent was obtained from every eligible participant mothers and NICU nurses who agreed to participate in the study.

4.12: Result Dissemination plan

The final result of thesis will be presented and submitted to Addis Ababa University, College of health science, school of nursing and midwifery, department of nursing. The final copy of document will be available to those who need it in the university. The finding will be given to NICU and KMC unit of TASH and to other responsible body and organizations working on related area. Publications in national and international journal will also be attempted.

CHAPTER FIVE: RESULT

5. 1 Socio demographic characteristics of mothers

Thirteen mothers were included in this study. Majority of the mothers were 26-30 year old and, the residence of all of them were from urban area, Addis Ababa. Seven of the mothers were orthodox by religion and six of mothers were house wife by their occupation. Regarding to educational status most of mothers attended secondary school. More than half of neonates were females and weigh between 1000 and 1500 g.

Table 1 Socio-demographic characteristics of the mothers at KMC in NICU of TASH, Addis Ababa, Ethiopia

Variable	Frequency(N=13)	Percentage (%)
Age		
15-20yr	1	7.7
21-25yr	4	30.6
26-30yr	4	30.6
31-35yr	3	23
36-40yr	1	7.7
Educational status		
Primary school	5	38.5
Secondary school	5	38.5

College and above	3	23
Residence		
Rural	0	0
Urban	13	100
Religion		
Muslim	2	15.4
Orthodox	7	53.8
Protestant	2	15.4
Catholic	1	7.7
Occupation status		
House wife	6	46.2
Daily labor	2	15.4
Self employed	2	15.4
Government employed	3	23
Sex of the neonate		
Female	8	61.5
Male	5	38.5
Weight of the neonate		
Less than 1000 gram	2	15.4
1000-1500gram	7	53.8
1500- 2000gram	4	30.6

5.2 Perception of mothers about the benefits of kangaroo mother care:

Mothers' knowledge about benefits and procedures of kangaroo mother care was primarily facilitated by health professionals' health education after they were admitted in NICU. All interviewed mothers reported that they did not hear anything about KMC before. All mothers said that they have learned about kangaroo care following delivery of their preterm infant and admission to kangaroo unit of NICU and they were using the method for the first time.

Most frequently, keeps the newborn warm, increases weight gain and increases mother- infant relationships were reported as major benefits of KMC by interviewed mothers.

One mother commented: *"The baby will get warm; grows fast. It helps me to spend more time with my child Participant 3, age 26 yr). I get in into this room to get my son warm because he is losing weight and preterm. KMC will make the baby comfortable and it increases weight very quickly (participant 12, aged32 yr).* Mothers' rarely mentioned that early discharge *"It causes the newborn to gain weight faster and get out of the hospital early" (Participant 6, 36 years old),* increases intelligence of newborn and prevents the newborn from infection as beneficial components of KMC "*It increases intelligence and prevents from disease. It also increases mother-child relationships (participant 2, aged 26 yr)".* Overall, mothers felt a strong sense of joy when holding their newborns skin-to-skin, and perceived similar enjoyment in their child.

Mothers also understood that kangaroo mother care is useful for close follow-up and monitoring of the condition of the baby, allows infants slept well and longer on the chest than on the bed and tended to cry more when put down. Mothers' also reported the benefits of KMC for themselves as it reduce their leg swelling. *"For me, KMC reduces my swelling leg (participant 2, aged 26 yr)".* Generally all mothers had positive perceptions on the benefits of KMC to infants.

5. 3 Mother's perception on enablers and barriers of practicing kangaroo mother care:

The study identified the following themes that describe the perceived enablers and barriers of practicing KMC which determine the extent to which mothers can engage in KMC.

Table 2. Identified themes that describe the perceived enablers and barriers of practicing KMC among mothers and nurses, in KMC of TASH, Addis Ababa, Ethiopia, 2020.

Themes (Mothers)	Sub-categories	Codes
Support	Family	Volunteer and willing family, educated and small family size, workload and family responsibility, lack of understanding
	Community	Lack of awareness, social practice and traditional adaptation
	Health staff and setting	Private and quite room, clear information and health education, poor supervision and follow-up, limited resource
	Cultural and religious	Health for neonates, it is not sin, does not oppose cannon of religion
Medical condition	Mothers medical condition	Back pain, surgical procedures, fatigue, hypertension and heart disease
	Infant medical condition	Ill and sleepy neonates
Themes (Nurses) Support	Caregiver	Volunteer and willing caregiver, lack of understanding, surgical procedures, having twins and above, length time
	Health staff and setting	Lack of training, poor attention by managers, limited resources, workload and time shortage.

Support:

Family support:

Family supports were reported in the form of providing encouragement and motivation of mother in performing of KMC so that mothers could perform kangaroo mother care. Educated family members were more volunteer and willing to practice kangaroo mother care. One mother said: *My husband is educated and he knows what infant needs and he encourages me to practice KMC (participant 11, aged 29 years).*

Mothers' telling the benefits of kangaroo mother care to the family was one of the enabling factors to practice KMC at home. One mother commented that her families were happy and volunteer to help her after she told the benefits. *"I told the benefits of KMC to my family and my family will support me. For Kangaroo mother care, I think men are more comfortable to newborns because their chest is wide. My family will also help me because they are educated and they understand me (participant 2, aged 26 yr)".*

Having small family size was also one of the enabler to practice KMC at home easily and adequately as mothers workload is reduced with small family size. One commented as *"since only my sister and I live together at home it is not difficult to practice KMC at home (participant 2, aged 26 yr)".*

A family having wanted/planned pregnancy was the enabler to practice KMC. One mother said *"My husband is happy because he wanted to have a baby. He is ready to perform a kangaroo care at home (participant 8, aged 23 yr).*

Kangaroo mother care practice was impaired if the mothers had no other supporting family member for other household works. *"This is an obstacle for me because of my workload and family responsibilities at home because no one helps me at home. It is only after I have done my job that I can use kangaroo care (participant 6, 36 yr aged)".* Another mother said*: "I am stressed in household works and there is no one to help me at home. I use kangaroo only after I finished house work (participant 7, aged)"*

The husband can only encourage mothers to perform KMC they did not involve to perform KMC for their newborn as they afraid of small infants and they fear the infants may fall and hurt. *My husband is educated and he knows what infant needs and he encourages me. But he says I can't do it and I'm afraid. He said I could drop them and I am scared when I see them (participant 11, 29 yr aged)".* Additionally another mother reported that: *my husband told me that do what the physicians ordered to the benefit of the baby. But he is afraid to embrace a child and never embraces before. He afraid more even to see the infants at newborn age (participant6 aged, 36 yr)".* Most mothers said their husbands were very supportive of the kangaroo care method.

Most mothers describe that their families lack information and understanding about benefits and procedures of KMC and this poor knowledge and absence of previous exposure and experience might be barriers to practice KMC. *One mother commented as: none of my family has ever practiced before and had no knowledge/information about it. But I think my husband would accept and help me (participant 3, aged 23 yr).*

Communities support:

Mothers felt that the community did not understand benefits and procedures of practicing KMC. Some people believed that mothers who used KMC wanted to dump or kill their infants. Social practice of holding the infant in the waist and at the back is adapted in many social setting and mothers face a barrier to hold their infant by using kangaroo mother care. The community refuses to practice kangaroo care out of home because they believed that holding the infant in front is risky for fall and hurting the infants. *The mother commented that: the community believed that the child should be held in the waist; because they believed that even if the mother fall accidentally the baby may not be hurt. However, if it is in the front of mothers the premature baby can be injured directly when exposed/fall (participant 1, aged 35 yr).* Another mothers additionally said that: *"the community may say that she is going to kidnap/kill her son because the benefits and the procedures of KMC is not known in the community. They may say she doesn't want her son (participant 6, aged 36 yr).*

The community believed that kangaroo mother care is the prevailing/latest style of caring the infants. One mother said: *many mothers and sisters, young mothers in particular, said that it is fashion style of child care (participant 1, aged 35 yr)*

The study identified that kangaroo mother care is new/ not official care of newborn in the study setting and all mothers were not aware of it before. As the community is strange for practice of KMC and lack understanding they perceive it as fashion style and it is foreign/white culture. This misunderstanding leads to the community to laugh on mothers practicing it and act as a barrier for mothers. Mother said "*I have never seen or heard of it in the community. It's something new and people may laugh. This comes from not knowing about the benefits (participant 7, aged 23 yr").* Additionally the other mother said "*I realized the benefits of KMC after I entered to this room. I was also not told about it even at pregnancy follow up. Kangaroo mother care is currently used by young mothers but aged mothers do not. They said that this is fashion (participant 3, aged 26)".* One mother also said that "t*he community is not happy because they said that this is a white or foreign culture (participant 11, aged 29*)".

Health staff and setting support:

Kangaroo mothers in the KMC room had received a lot of information on benefits, procedures and how to care for their infants in KMC. This well and adequate information given by health professionals made them to practice KMC well. Mother commented "*they told me about the benefits and procedures of kangaroo care. They also come and see me occasionally (participant 13, aged 25 yr)".*

The presence of quiet and private room in the hospital kangaroo room was the mothers' principal enabler to practice KMC at hospital. Mother said "*It is a quiet and peaceful place and is very comfortable for the baby and me (participant 3, aged 26 yr)".Additional mothers reported that "I found it cool to be alone. It is a place where there is no disturbance. I watch my son closely (participant 2, aged 26 yr)".*

Mothers reported that fulfilled materials and equipments in kangaroo room made them to practice kangaroo care adequately. One mother reported that *"Most important materials and equipments are full filled. But it's nice to have some inputs, such as soft and syringes in the room (participant 2, aged 26 yr)".*

Most of mothers complained that professional supervision and follow up after they entered to the kangaroo room is not adequate. This poor monitoring was the most frequently reported barriers by mother related to health staff and setting supports. Mother said that "*Health professionals after they showed me what to do and how to handle neonate they do not come often here. It may be because of infants does not have medication. But they still had to keep an eye on what is going on and some professionals are not volunteered to talk to me (participant 8, aged 23)".* Additionally one mother said that *"Care and supervision by health professionals is not enough. Of course, there are both good and bad professionals (participant 13, aged 25 yr)".*

Furthermore another mother said that *"health professionals wait a call me to come to give even medication. One day they passed without giving her medication. Still I used an alarm to call them. Sometimes they come after they spend about 30 minutes. I have to take my son out of Kangaroo to call them, so this is an obstacle (participant 6, aged 36 yr)".*

The other frequently reported barriers to practice kangaroo care was the absence of sanitation resource in the neonatal room. This prevents them to stay lengthy time on kangaroo with their infants. The mother commented "t*he room was so hot it burned my back and there is excessive sweating. I can not take a shower even though it's hot. I sweat so much that my body change the smell. In this case, I think it is not good to put the children in a kangaroo and I take out the baby (participant 6, aged 36 yr)".*

There are a number of problems, among them water scarcity is a critical problem. A delivered mother should wash her body well frequently but there is no bath here. Now I change clothes without washing my body. The room is very warm/hot and there is excessive sweating. There is a shower and toilet room, but no water (participant 1, aged 35 yr)".

"Water needs to be taken very seriously. There is no water. My body smells so bad, how can I treat her in this situation? It should be present in this room, but it does not have in a general floor (participant 9, aged 26)".

Cultural and religious support:

All interviewed mothers commented that they did not experience and perceive any barriers to practice kangaroo care related to religious and cultural view. Religiously and culturally mothers are told to keep their child healthy and in ethical manner. One mother said that *"As long as it is healthy for my child, there is no cultural or religious barrier. A mother has a duty to take care of her child (participant 11, aged 29 yr)".* Another mother mentioned that *"There is no obstacles with religion I just know I have to raise a child in ethical way (participant 1, aged 35 yr)".*

Additionally mothers reported that practicing kangaroo care is not against cannon of religion and it is not sin. *There is no opposition from religion and culture because it is not sin (participant 2, aged 26 yr).*

Medical condition of infants and mothers:

Most mothers expressed fear for their child's health, especially in terms of the infant's sleepiness. *One mother said that "I was shocked because the baby had stopped breast feeding and slept a lot. She only awake when a tube is inserted to the nose. I decided to return to my home. I cried because I thought she was going to die because she did not wake up soon (participant 2, aged 26 yr)".* This perception of mothers on the child's health affects the mother's kangaroo care giving behaviors. Some mothers said that it was difficult to sleep with an infant on their chest at first, but they had persevered for the sake of the infant.

The presence of surgical procedure during delivery and pain of the surgical wound affects the practice of kangaroo care. Mothers having cesarean section cannot practice kangaroo care for lengthy time and they feel pain when the infants touch it as a result they interrupt kangaroo care. *Mother said that "I have surgery and I feel a slight pain when she touched the wound on her leg (participant 10, aged 22 yr)". There is a pain because I give birth in surgery. This affects me to practice kangaroo care (participant 1, aged 35 yr)*

Now I have a surgical procedure and it is a barrier to me to practice KMC. I cannot bear on my stomach / chest because it has pain on surgical wound (participant 12, aged 32).

The presence of mother with twins was one of the barriers to practice KMC adequately as they need to have supporting family member. These mothers face a problem of tiredness to have kangaroo for both newborns and face difficulty of having supporting family. Mother said that *"I need someone to help me because they are twins. I take them out for breastfeeding and they get kangaroo care in order (participant 11, aged 29 yr)"*.

5. 4 Perception of nurses about the benefits of kangaroo mother care:

In this study a total of seven nurses were interviewed. Most of the interview nurses had less than five years of experience. Increase weight gain, keep warm, increase mother-infant relationship, improve breast feeding and prevent newborn from infection were the most frequently reported benefits of kangaroo mother care by nurses. Nurse commented that "*kangaroo care gives premature babies the warmth. They need to be warm because they are born before nine months. This heat can help them to gain weight and grow fastly. It also protects against disease/infection. Because of the skin to skin touch, it increases the bond between mother and child (nurse 1, 10 yr experience)".*

It also creates comfort, improves breathing pattern and increases weight and growth (nurse 2, 10 yr experience)

We have seen the benefits of kangaroo in practice. It creates a bond between mother and child. Kangaroo makes the newborn baby to breastfeed easier. It also reduces infection transmission/prevents from infection. We put two or three babies together in one incubator. This is highly risk to infection transmission. But kangaroo prevents this (nurse 4, 5 yr experience)".

5.5 Nurses perspective on barriers and enablers of practicing kangaroo mother care:

The study identified the following themes related to the enablers and barriers of practicing kangaroo mother care on the perception of nurses working at KMC room in NICU of TASH.

Caregiver support:

Nurses reported that the willingness and voluntarism of mothers and well organized and detailed information given to mothers by health professionals was the major enablers to perform kangaroo care for preterm and low birth weight newborns. The nurse commented that *"the mothers are very willing and happy to practice KMC. We tell them the benefits of kangaroo mother care and how to hold the neonate in kangaroo (nurse 7, 5 yr experience)".*

The presence of surgical procedures during delivery and surgical site pain interrupts the mothers from practicing kangaroo care adequately. But these mothers tolerate the pain and scarify for their children and practice kangaroo with pain. *"Mothers who have had a caesarean section say there is a little pain, but they try to perform kangaroo mother care. They do it while they are in pain. Mothers with heart disease are even more difficult to perform kangaroo mother care (nurse 2, 10 yr experience)".*

Lengthy time needed on kangaroo made the mothers to report some barriers related to difficulty and discomfort to fall asleep. Some mothers also reported that kangaroo care was not comfortable for moving and walking. *A Nurse reported that "since kangaroo care is practiced for 24 hours a day and night, making it difficult for mothers to fall asleep (nurse 7, 5 yr experience)".*

Health staff and setting support:

Lack of attention given to kangaroo mother care for thermal control by top managers affects the practice of KMC by assigned health professionals in neonatal and kangaroo room. This poor attention to kangaroo mother care by administrative leads to lack of training and updating the professionals' knowledge and understanding of the benefits and procedures of kangaroo care. One nurse commented that "*It is not being given special attention by administrative. Trainings given for professional are not enough (nurse 3, 12 yr experience)".*

Additionally another nurse reported that *"the training for health professionals is limited. Even the given training is not given on its own training manual it is given under newborn care. This is not enough because it is not widely available and discussed but it is included as an introduction and highlight. I have never been trained yet (nurse 2, 10 yr experience)".*

Absence of suitable and equipment fulfilled kangaroo room in the neonatal room was the one of the barriers to nurses to practice kangaroo care broadly. One nurse commented that "i*n the past, the class was so large and many mothers came in and in addition to health professionals, mothers can learn on television and video and saw the benefits and the procedures. But now there is only one room and it is very narrow and the television and video teaching is stopped (nurse 1, 10 yr experience)".* Another nurse strengthens this barrier as *"the hospital is not offering kangaroo care largely and broadly. Previously there were 10 beds but now there are only 3 beds for kangaroo. It is not being given special attention by administrative (nurse 3, 12 yr experience)".*

The absence of well organized and fulfilled resources needed for practicing kangaroo care in kangaroo room especially the absence of water resource in the room affects the practice of kangaroo care. One nurse commented as *"of course there is nothing complete for the room other than the bed. Especially when mothers go out to fetch water because there is no water, the children stay out of kangaroo for a long time (nurse 3, 12 yr experience)".*

The presence of workload of nurses working at neonatal intensive care unit because of the shortage of health professionals made them not to give attention to kangaroo mother room. Professionals argued that neonates in kangaroo room are somewhat stable and well. Since there is more critical neonates in NICU they give more time and attention to them as a result most mothers complain that this poor supervision and follow-up made them to feel ignorance and neglect. One nurse reported that *"we have workload because of a shortage of professionals and a lack of time, so there is not much monitoring and follow up of neonates after entering the kangaroo room. As a result, sometimes neonates have lost their lives in kangaroo; I experienced this situation during my stay (nurse 3, 12 yr experience)".*

Cultural and religious support:

In the study nurses had never encountered any cultural and religious related barriers to practice kangaroo care in their experience of working at neonatal and kangaroo room. *Nurse said that " I have never encountered cultural and religious barriers and obstacles, but there are rumors that a child who is treated like this is a miscarriage (nurse 3,* 12 yr experience)".

Another nurse adds that *"I have never experienced anything about kangaroo mother care religiously and culturally. There are those who fear that she has given birth to a very young child (nurse 1, 10 yr experience)".*

CHAPTER SIX: DISCUSSION

1. DISCUSSION

The findings of this study provide mothers' and nurses' perceived barriers and enablers for providing KMC. Engaging in KMC is inhibited by different barriers including family support, community support, health setting and staff support, caregiver support and medical condition of both the mothers and the infants. The findings suggest that these barriers impact a mother's ability to engage in KMC and nurses ability to scale-up KMC. Better understanding of these barriers is essential for building a comprehensive model to improve child health.

Identification of enablers and barriers for promotion of simple, safe, affordable and effective methods of preterm care is important since care of preterm infants remains a major problem in resource poor countries. KMC method cannot totally replace incubator care in hospital but has a major role as it is cost effective method of preterm care.

Family support:

The study identified family support, encouragement and motivation in performing KMC, as the enabling factor to practice KMC. The presence of family support to other household work and family encouragement and motivation of mothers by their family to practice KMC increases the routine use of KMC. This is consistent with support from husbands and family was the KMC enablers in a report of international workshop on implementation of kangaroo mother care for care preterm babies(23). Other studies of family support for KMC was also conducted in Nigeria and showed that family members' assisting with other household work was the most common KMC practice enablers(7).

The study found that mother's workload and family responsibility included other household works were barrier to perform kangaroo care for their infants. This finding is consistent with studies in Southern Nigeria, where most mothers lived in crowded families, had to perform other household work and look after other older children and they could not provide KMC for

a longer time for their newborns(7). Mother's obligation to perform household chores was one critical barrier to KMC practice and mothers perceive KMC as a burden for them.

Most mothers describe that their families lack information and understanding about the benefits and the procedures of KMC and this poor knowledge and absence of previous exposure and experience might be the barriers to practice KMC. The husband can only encourage the mothers to perform KMC they did not involve to perform KMC for their newborn as they afraid of small infants and they fear the infants may fall and hurt. In this respect literature review of parents' experiences of kangaroo mother care indicates that parents had fear of harming their baby when providing KMC (21).

Community support:

In this study mothers felt that the community did not understand the benefits and the procedures of practicing KMC. Some people believed that mothers who used KMC wanted to dump or kill their infants and social practice of holding the infant in the waist and at the back is adapted in many social setting and mother face a barrier to hold their infant by using kangaroo mother care. The community refuses to practice kangaroo care out of home because they believed that holding the infant in front is risky for fall and hurting the infants. These findings are consistent with results obtained from report on an international workshop on kangaroo mother care where culture-specific beliefs and disapproval by the community were a barriers to practice KMC(23).

A systematic review of caregiver perspectives towards barriers and enablers of kangaroo mother care concluded that mothers did not feel supported by their communities at the time of practicing KMC(12). The results of this study also revealed that kangaroo mother care is new/ not official care of newborn in the study setting and all mothers were not aware of it before. As the community is strange for the practice of KMC and lack understanding they perceive it as fashion style and it is foreign/white culture. This misunderstanding leads to the community to laugh on mothers practicing KMC and act as a barrier for mothers.

Health staff support and setting:

Support from health care workers was one of the enablers for KMC practice, based on the systematic review of KMC implementation in preterm babies(26). This research also showed that kangaroo mothers in the KMC room had received a lot of information on benefits, procedures and how to care for their infants in KMC. This well and adequate information given by health professionals made them to practice kangaroo well. Being educated by health care workers will increase KMC mothers' knowledge, positive attitudes, and confidence in doing KMC. When mothers are educated about KMC in the hospital, they will implement KMC at home. The presence of quiet, peaceful and comfortable private room in the hospital in kangaroo room was also the mothers' principal enablers to practice KMC at hospital. The mother found that it is cool to be alone without any disturbance. These finding are quite similar to the finding of systemic review of enablers and barriers of practicing kangaroo care where the presence of private spaces and quiet atmosphere was one of the enablers of practicing kangaroo care in (20,21). These quite and private kangaroo room allowed mothers to practice KMC freely without interruption and without exposed to other mothers and health staffs.

A literature review of parents' experiences of kangaroo mother care indicates that mothers said that staffs did not have enough time to help us to position the infant on the mother's chest, which was a barrier to provide KMC for their infant (21). In this study most of interviewed mothers also complained that professional supervision and follow up after they entered to the kangaroo room is not adequate. This poor monitoring was the most frequently reported barriers by mother related to health staff and setting supports. Mothers believed that infants need continuous follow-up and monitoring even if they did not have any medication. This poor supervision and follow-up of mothers after entering to kangaroo room by health professionals allow the mothers to interrupt practicing KMC in between and may disposition the infants during KMC.

Related to health service delivery system a systematic review of caregiver perspectives towards barriers and enablers of health system adoption of kangaroo mother care mothers reported that lack of KMC resources (chairs, beds, linens, curtains, KMC wraps, etc.) in the hospital were obstacles to KMC adoption(20). The results of this study also showed that the absence of sanitation resource in the neonatal room prevents mothers to stay longer time on

kangaroo with their infants. Mothers thought that having skin to skin contact with the infant at warm room without having shower is not good for the infants.

Medical condition of mothers and infants: the findings from report on an international workshop on kangaroo mother care identifed pain/fatigue during KMC and difficulty of adhering to the kangaroo position while sleeping were the barriers to practice KMC(23). Results of this study from mothers view point revealed that the presence of surgical procedure during delivery and pain of the surgical wound affects the practice of kangaroo care. Mothers having cesarean section cannot practice kangaroo care for longer time and they feel pain when the infants touch it as a result they interrupt kangaroo care. Additionally in this study mothers stated that it was difficult to sleep with an infant on their chest at first, but they had persevered for the sake of the infant.

The systematic review of caregiver perspectives towards barriers and enablers of health system adoption of kangaroo mother care found that the clinical condition of premature neonates and medical condition of mother themselves act as a barrier for KMC uptake(12). This research also showed that mothers fear for their child's health; especially in terms of the infant's prolong sleepiness affect the practice of KMC. Mothers feel shocked when the infants sleep a lot without any wake up and they decided to remove out of kangaroo and return to home. This perception of mothers on the child's health affects the mother's kangaroo care giving behaviors.

Nurses perceived enablers and barriers of practicing KMC:

Caregiver support: A study done on barriers and enablers of practicing kangaroo mother care in rural Sindh, Pakistan identified supports from caregiver were major enablers of practicing KMC(23,25). The findings were similar to the study in which nurses reported that the willingness and voluntarism of kangaroo mother and well organized and detail information given to mothers about the benefits and procedures of KMC by health professionals was the major enablers to perform kangaroo care for preterm and low birth weight newborns. The willing and volunteer kangaroo mothers and acceptance of KMC by mothers allow nurse to implement KMC easily.

In a systemic review nurses identified that mother's need of short duration of discharge made kangaroo care more difficult to keep mother/infant pairs in the hospital for extended durations of time (22,26,27). This study also revealed that longer time needed on kangaroo made the mothers to report barriers related to difficulty and discomfort for fall asleep, discomfort for moving and walking. Furthermore the presence of surgical procedures during delivery and surgical site pain interrupts the mothers from practicing kangaroo care adequately.

Health setting support:

A systemic review on barriers and enablers of kangaroo mother care implementation from a health systems perspective identified that the most common barriers for nurses to scale- up the practice of KMC were the absence of quality training of professionals, increased workload and insufficient staff, reduced resources, shortage of space, reluctance by management and poor supervision (26). These common identified barriers were similar to this study in which workload of health care workers did not allow sufficient time to teaching and practicing kangaroo mother care in facilities with staffing shortages and they concerned about not having time to attend other critical newborn patients in the NICU. This is due to poor attention to kangaroo mother care by administrative and leads to lack of training and updating the professionals' knowledge and understanding of the benefits and procedures of kangaroo care.

The presence of workload of nurses working at neonatal intensive care unit because of the shortage of health professionals made them not to give attention to kangaroo mother room. Also absence of suitable, large and equipment fulfilled kangaroo room and limited numbers of beds in the room affects the routine scale-up of KMC practice. Since there is more critical neonates in NICU they give more time and attention to them as a result most mothers complain that this poor supervision and follow-up made them to feel ignorance and neglect. This is consistent with the finding of the study done at Rio de Janeiro and Bangalore, India in which the lack of time related to work overload, scarcity of human resources and limited availability of the professional were a major barrier to scale-up kangaroo care(10,28).

CHAPTER SEVEN: STRENGTH AND LIMITATION OF THE STUDY

7.1. STRENGTH

The study tried to identify the enablers and barriers of practicing kangaroo mother care from both mothers and health professionals' perspective.

7.2. LIMITATION

While every effort was made to conduct focused group discussion with mothers for better understanding of enablers and barriers of practicing KMC, the presence of novel COVID-19 prevents to collect data through FGD.

CHAPTER EIGHT: CONCLUSSION AND RECOMMENDATION

8.1. CONCLUSSION

This study is among the thematic analyses of how different factors influence KMC utilization and implementation among mothers with preterm infants and nurses working at NICU. The findings indicated that mothers and nurses perceived a complex array of barriers and enablers that determine a mother's and nurses ability to provide KMC. To improve mothers' and nurses performance and promote the health of preterm infants through practicing KMC, supports, such as family, community, and health professional and setting support are required. Addressing these factors through policy changes and hospital interventions is essential to enable optimal child health care.

8.2. RECOMMENDATION

For hospital administrative

Hospital top managers and administrative should arrange well organized and well equipped kangaroo room and allocate sufficient health professionals for kangaroo room. Nursing staff should be given training in preterm and low birth weight care through kangaroo mother care.

For minister of health: the community should be made more aware of the kangaroo mother care method and its benefits There is a need for improved community awareness of this method of care and its advantages through media coverage and health extension workers

For researchers: Further research is needed to identify scalable solutions that address the different complex barriers these mothers and nurses face during kangaroo care practice, and to ensure the health of both mother and child.

REFERENCES

1. World Health Organization: Recommendations on interventions to improve preterm birth outcomes: Geneva, Switzerland2015. http://apps.who.int/iris/handle/10665/183037. Accessed September 3, 2015.

2. Save The Children MCHIP Jhpiego: Kangaroo Mother Care Implementation Guide Washington, D.C., USA: April 2012

3. WHO and UNICEF: Reaching the Every Newborn National 2020 Milestones Country Progress, Plans and Moving Forward. 2017. 2015–2018

4. World Health Organization. Reproductive Health. Kangaroo mother care: a practical guide. World Health Organization; Geneva, Switzerland 2003

5. Plotkin M, Tibaijuka G, Makene CL, Currie S, Lacoste M. Quality of Care for Prevention and Management of Common Maternal and Newborn Complications: A Study of Ethiopia's Hospitals 2011;1–48.

6. Lawn J, Blencowe H, Oza S, et al. Progress, priorities, and potential beyond survival. Lancet. 2014;6736 (14). doi:10.1016/S0140- 6736(14)60496-7

7. Opara PI, Okorie EMC. Kangaroo mother care: Mothers experiences post discharge from hospital. J Preg Neonatal Med 2017;1(1): 1-5

8. Ministry of Health. (2015). Ethiopian National Health Care Quality Strategy 2016-2020. www.medbox.org/et-policies-others/ethiopian-national-health-care-quality-strategy2016-2020/preview

9. Bayih WA, Assefa N, Dheresa M, Minuye B, Demis S. Neonatal hypothermia and associated factors within six hours of delivery in eastern part of Ethiopia : a cross-sectional study. BMC Pediatrics 2019; 1–10.

10. Silva LJ, Leite JL, Silva TP, Silva IR, Mourão PP, Gomes TM. Management challenges for best practices of the Kangaroo Method in the Neonatal ICU. Rev Bras Enferm [Internet]. 2018;71 (Suppl 6):2783-91. [Thematic Issue: Good practices in the care process as the centrality of the Nursing] DOI: http://dx.doi.org/10.1590/0034-7167-2018-042811.

Shrivastava SR, Shrivastava PS, Ramasamy J. Utility of kangaroo mother care in preterm and low birth weight infants. South African Fam Pract. 2013;55 (4):340–4.

12. Kangaroo Mother Care Scale- Up Study Group. Kangaroo Mother Care implementation research to develop models for accelerating scale- up in India and Ethiopia: study protocol for an adequacy evaluation. BMJ Open 2019; 9: e025879. doi:10.1136/ bmjopen-2018-025879

13. Bergh A-M, van Rooyen E, Lawn J, Zimba E, Ligowe R, Chiundu G. Retrospective Evaluation of Kangaroo Mother Care Practices in Malawian Hospitals. Healthy Newborn Network. 2007; (August):1–78.

14. Adriano Cattaneo. Kangaroo Mother Care. Breastfeeding briefs. International Baby Food Action Network (IBFAN) 2017; (July).

15. Meena J, Tanushree S, Anu Thukral, Poonam J, amanpreet S, and Ramesh A. Improving Duration of Kangaroo Mother Care in a Tertiary-care Neonatal Unit : A Quality Improvement Initiative. Indian Pediatrics Volume 55, September 15, 2018.

16. Demissie B, Abera B, Chichiabellu T, Feleke H. Neonatal hypothermia and associated factors among neonates admitted to neonatal intensive care unit of public hospitals in Addis Ababa , Ethiopia. BMC Pediatrics (2018) 18:263 https://doi.org/10.1186/s12887-018-1238-0 2018.

17. Mathias CT, Mianda S, Ginindza TG. Evidence of the factors that influence the utilization of Kangaroo Mother Care by parents with low-birth-weight infants in low- and middle-income countries (LMICs): a scoping review protocol. Systematic Reviews (2018) 7:55 https://doi.org/10.1186/s13643-018-0714-9 2018; 1–7. 25

18. Vesel L, Bergh A, Kerber K, Valsangkar B, Mazia G, Moxon S, et al. Kangaroo mother care : a multi-country analysis of health system bottlenecks and potential solutions. BMC

Pregnancy and Childbirth 2015, 15(Suppl 2):S5 http://www.biomedcentral.com/1471-2393/15/S2/S5

19. Gamlath G, Wijayarathne P, Gunadasa P, Sakalasooriya S, Kuruppu N. Barriers to Implement Kangaroo Mother Care among Post- Natal Mothers with Premature Low Birth Weight Babies. Research for Sustainable Development 2012; 289–94.

20. Smith E, Bergelson I, Constantian S, Valsangkar B, Chan G. Barriers and enablers of health system adoption of kangaroo mother care: A systematic review of caregiver perspectives. BMC Pediatr. 2017; 17 (1):1–16. Available from: http://dx.doi.org/10.1186/s12887-016-0769-5

21. Sudell J., Lanlehin R.M., Hill M.C. A literature review of parents' experiences of kangaroo care in the neonatal unit. Infant 2015; 11(3): 96-99.

22. Chan G, Labar A, Wall S, Atun R. Kangaroo mother care: A systematic review of barriers and enablers. Bull World Health Organ. 2016; 94 (2):130J-141J.

23. Cattaneo A, Amani A, Charpak N, Leon-mendoza S De, Moxon S, Nimbalkar S, et al. Report on an international workshop on kangaroo mother care : lessons learned and a vision for the future. 2018; 1–10.

24. Salimi T, Khodayarian M, Bokaie M, Antikchi M, Javadi S. Mothers' experiences with premature neonates about Kangaroo care: Qualitative approaches. Int J Pediatr. 2014; 2 (1):75–82.

25. Jamali Q, Shah R, Shahid F, Fatima A, Khalsa S, Spacek J, et al. Barriers and enablers for practicing kangaroo mother care (KMC) in rural Sindh, Pakistan. PLoS One. 2019; 14 (6):1–15.

26. Chan G, Bergelson I, Smith E, Skotnes T, Wall S. Barriers and enablers of kangaroo mother care implementation from a health systems perspective : a systematic review. 2017 ;(August):1466–75.

27. Debi F, Linda H, Barriers to skin to skin care during the postpartum stay. 2014; 39(1). DOI:10.1097/01.NMC.0000437464.31628.3d 27

28. Alenchery AJ, Thoppil J, Britto CD, de Onis JV, Fernandez L, Suman Rao PN. Barriers and enablers to skin-to-skin contact at birth in healthy neonates - a qualitative study. BMC Pediatr. 2018;18 (1)

APPENDIX

Appendix 1: Information sheet

In-depth interview for research project to explore enablers and barriers of Kangaroo Mother Care among mothers and nurses at KMC unit of TASH

A. Informed information sheet for mothers attending KMC

GREETING!

My name is _____, I am a ----- working ------ now I am collecting data from you for the research being conducted to explore enablers and barriers of practicing KMC , and we would like to improve the KMC service being provided in health institution in the future. We hoped that discussion with you would be very helpful to strengthen the service and to promote the general wellbeing of both the mother and children.

Hence I would like to raise some questions for discussion about the general enablers and barriers of KMC. Before the beginning of the discussion I wish to express my appreciation for your voluntary participation. Based on the purpose and objectives of the study, therefore, you are rightfully eligible for the interview. It is only an interview and does not involve anything more. I would like to ask you set of specific questions. I will be grateful if you can spend some time talking with me. The interview is consent based voluntary, confidential, private and of approximately half hour duration. Other than a general serial code, your name and other identification aspects are not going to be recorded on the interview sheet. Everything you are going to tell will get kept strictly confidential and private. You will not get obliged to respond to one or more of the specific questions that you do not want to respond to. But so long as you find it reasonably convincing, it undoubtedly is going to be more helpful when all of the questions of the interview set will get completed.

Person to contact: This research project will be reviewed and approved by the institutional review board of College of Health Science, school of nursing and midwifery and department of nursing, Addis Ababa University. If you have any question you can contact any of the following individuals (Investigator and Advisors) and you may ask at any the time you want.

1. Mekuriyaw Gashaw, Addis Ababa University, College of Health Science, school of Nursing and midwifery and Department of Nursing: principal investigator

Cell phone: +251961594307

E-mail: meku21gasha@gmail.com

2. Dr. Rajalakshmi (Ph.D.) Addis Ababa University, College of Health Science, school of nursing and midwifery: main Advisor.

Cell phone: +2519 11721193

E-mail: rajisomanathan@gmail.com

3. Mekonen Admasu (BSc, MSc) AAU University, College of Health sciences, School of Nursing and midwifery: Co- Advisor.

Cell phone: +251917724019

E-mail: mekonenad2016@gmail.com

B. Consent and contact for KMC mothers.

1. Do you have any questions that you would like to ask?

2. Are there any things you would like me to explain again or say more about?

3. Do you agree to participate in the interview?

Declaration to be signed/verbal consent obtained----------

The purpose of the interview is explained to me and I agree that……(Name of person) is interviewed.

Signature ---------- Date ----------

Appendix 2: Questionnaires

Questionnaires to explore the perceved enablers and barriers of practicing KMC among mothers attending KMC unit in NICU of TASH

Socio demographic characteristics of mothers attending KMC unit IN NICU of TASH

Socio demographic characteristics of mother	Possible answers
Age(in years)	---------- years
Religion of mother	1. Orthodox 2. Muslim 3. Catholic 4. Protestant 5. Others specify-----
Residence	1.urban 2.rural
Region of mothers	1. Tigray 2. Amhara 3. Oromiya 4. SNNP 5. Other------
Marital status of mothers	1. Single 2. Married 3. Divorced

	4. Widowed 5. Separated
Educational status of mothers	1. Illiterate 2. Read and write 3. Primary 4. Secondary 5. College and above
Occupation of mothers	1. House wife 2. Governmental employee 3. Self employed 4. Others----------
Monthly income(in ETH Birr)	----------(ETH)Birr
Sex of neonate	1. Male 2. Female
Weight of neonate	----------Kg

Now I would like to talk about KMC

Questions	Response
Main questions: 1. What do you think about the benefits of KMC for premature and LBW babies?	Probe: ➢ Helps bond with baby ➢ Keeps baby warm ➢ Helps with feeding ➢ Other

2. Which factors facilitate your provision of KMC to the extent you desired? Facilitating factors of KMC utilization by parents with premature and LBW infants? **Sub questions:** 1. How do you describe community support of KMC? 2. How do you describe family member support of KMC? 3. How do you describe health staff and setting support of KMC? 4. What do you say about cultural and religious view and support of KMC?	Probe: ➢ Acceptability ➢ Culture ➢ Religion ➢ Belief
Main questions: 3. What are the barriers and challenges to KMC utilization by parents with premature and LBW infants? **Sub questions:** a. How do you describe family and community challenges to the practice of KMC? b. How do you describe cultural and religious view and barriers to the practice of KMC? c. How do you describe health staff and setting barriers of KMC? d. How do you describe time and	Probe: ➢ Acceptability ➢ Culture ➢ Religion ➢ Belief

medical related barriers to KMC? **N.B.** Is there anything else you add that have not discussed yet that you think is important for our discussion and finding?	

Questionnaires to explore the perceved enablers and barriers of practicing KMC among nurses working at KMC unit in NICU of TASH

Questions	Response
01. Professional status	
02. Working experience	----------years
Main questions: 1. What do you think about the benefits of KMC for premature and LBW babies? 2. What are the enabling factors of KMC practice to premature and LBW infants in your institution? **Sub questions:** 1. How do you describe caregiver's and family member support of KMC? 2. How do you describe health	Probe: ➢ Helps bond with baby ➢ Keeps baby warm ➢ Helps with feeding ➢ Other Probe: ➢ Acceptability ➢ Culture ➢ Religion ➢ Belief

staff and setting support of KMC?	
Main questions: 3. What are the barriers and challenges to KMC practice with premature and LBW infants? **Sub questions:** a. How do you describe caregiver's challenges to the practice of KMC? b. How do you describe family members and community challenges to the practice of KMC? c. How do you describe health system and setting barriers to practice KMC? d. How do you describe cultural and religious barriers to the practice of KMC? **N.B.** Is there anything else you add that have not discussed yet that you think is important for our discussion and finding?	Probe: ➢ Acceptability ➢ Culture ➢ Religion ➢ Belief

Amharic version of appendix

አባሪ 1 የመረጃ ወረቀት

በጥቁር አንበሳ ስፔሻላይዝድ ሆስፒታል በሚገኘው ካንጋሮ እናት እንክብካቤ ክፍል ውስጥ በእናቶች እና በነርሶች መካከል ያሉትን የካንጋሮ እናት እንክብካቤን ማመቻቸት ወይም/ማነቃቃት እና መሰናክሎችን ለመመርመር ተዘጋጀ የጥልቀት ጥናት ቃለ-ምልልስ ፡

A. ካንጋሮ እናት እንክብካቤ ለሚተገብሩ እናቶች የመረጃ ቅጽ (ወረቀት)

ሰላም!

እኔ ስሜ _____ ነው የምሰራዉ---------- አሁን የካንጋሮ እናት እንክብካቤ ልምምዶችን እና መሰናክሎችን ለመፈተሽ ለማደረገው ጥናት ውሂብ እሰበስባለሁ ፣ እናም የካንጋሮ እናት እንክብካቤ አገልግሎትን ማሻሻል እንፈልጋለን፡፡ ከእርስዎ ጋር የሚደረግ ውይይት አገልግሎቱን ለማጠንከር እና የእናትን እና የልጆችን አጠቃላይ ደህንነት ለማስጠበቅ በጣም እንደሚረዳ ተስፋ እደርጋለሁ ፡፡

ስለሆነም ስለ ካንጋሮ እናት እንክብካቤ አጠቃላይ አነቃቂዎችና መሰናክሎች ለመወያየት የተወሰኑ ጥያቄዎችን ማንሳት እፈልጋለሁ ፡፡ ከውይይቱ መጀመሪያ በፊት ለፈቃደኝነትዎ ተሳትፎ አድናቆቴን ለመግለጽ እፈልጋለሁ ፡፡ በጥናቱ ዓላማ ላይ በመመርኮዝ ለቃለ መጠይቁ በትክክል ብቁ ነዎት ፡፡ ከቃለ ምልልሱ ዉጪ ምንም ነገር አያካትትም። የተወሰኑ ጥያቄዎችን ልጠይቅዎት እፈልጋለሁ ፡፡ ከእኔ ጋር ለመነጋገር የተወሰነ ጊዜ ማሳለፍ ስለቻሉ አመሰጋኝ ነኝ ፡፡ ቃለመጠይቁ በፈቃደኝነት ፣ በምስጢር ላይ የተመሠረተ ስምምነት ነው ፣ በግምት ግማሽ ሰዓት ቆይታ ዬወስዳል ፡ ፡ ከ አጠቃላይ መለያ ቁጥር በስተቀር የእርስዎ ስም እና ሌሎች ገጽታዎች በቃለመጠይቁ ወረቀቱ ላይ አይመዘገቡም ፡፡ የሚናገሩት ነገር ሁሉ በጥብቅ በሚስጥር

የተጠበቀ ይሆናል ፡፡ መልስ ለመስጠት ለማይፈልጉት አንድ ወይም ከዚያ በላይ ለሆኑ የተወሰኑ ጥያቄዎች መልስ የመስጠት ግዴታ የለብዎትም ፡፡ ነገር ግን በምክንያታዊ አሳማኝ ሆኖ እስካገኙት ድረስ ፣ በቃለ መጠይቁ የተቀመጡት ሁሉም ጥያቄዎች ሲጠናቀቁ የበለጠ አጋዥ እንደሚሆን ጥርጥር የለውም።

ይህ የምርምር ፕሮጀክት በአዲስ አባባ ዩኒቨርስቲ በጤና ሳይንስ ኮሌጅ ፣ በነርሲግ እና በአዋላጅ ነርስ ትምህርት ቤት፡ ክለሳ ይፀድቃል ፡፡ ማንኛውም ጥያቄ ካለዎት ከሚከተሉት ግለሰቦች ጋር መገናኘት ይችላሉ እና በፈለጉበት ጊዜ ሁሉ መጠየቅ ይችላሉ ፡፡

1. መኩሪያዊ ጋሻው ፣ በአዲስ አበባ ዩኒቨርሲቲ ፣ የጤና ሳይንስ ኮሌጅ ፣ የነርሲግ እና አዋላጅ ነርስ ትምህርት ቤት: የጥናቱ ዋና መርማሪ

ሞባይል ስልክ: +251935716357

ኢሜል: meku21gash@gmail.com

2. ዶክተር ራጃላክሽሚ ሙሩጋን (ፒኤችዲ.) የአዲስ አበባ ዩኒቨርሲቲ ፣ የጤና ሳይንስ ኮሌጅ ፣ የነርሲግ እና አዋላጅ ነርስ ትምህርት ቤት፡ የጥናቱ ዋና አማካሪ ፡፡

ሞባይል ስልክ: +2519 11721193

ኢ-ሜል: rajisomanathan@gmail.com

3. መኮነን አድማሱ (ቢ.ኤስ.ሲ.) የአዲስ አበባ ዩኒቨርሲቲ ፣ የጤና ሳይንስ ኮሌጅ ፣ ነርሲግ እና አዋላጅ ነርስ ትምህርት ቤት - የጥናቱ ረዳት-አማካሪ ፡፡

የሞባይል ስልክ: +251917724019

ኢሜል: mekonenad2016@gmail.com

ለ / ካንጋሮ እናት እንክብካቤ

እናቶች ፈቃድ መስጠትና ማነጋገር ፡፡

1. ሊጠይቁት የሚፈልጉት ማንኛውም ጥያቄ አለዎት?

2. እንደገና እንዲብራራ ወይም የበለጠ እንድናገር የሚፈልጉት ጥያቄዎች አሉ?

3. በቃለ መጠይቁ ውስጥ ለመሳተፍ ይስማማሉ?

የተፈረመ / የቃል ስምምነት መግለጫ ---------- ----------

የቃለ መጠይቁ ዓላማ ተብራርቶልኛል እናም .... (የሰውዬው ስም) በቃለ መጠይቁ እስማማለሁ ፡፡

ፊርማ ---------- - ቀን ---------- ----------

አባሪ 2-መጠይቆች

በጥቁር አንበሳ ስፔሻላዬዝድ ሆስፒታል በሚገኘው ካንጋሮ እናት እንክብካቤ ክፍል ውስጥ በሚገኙ እናቶች መካከል የካንጋሮ እናት እንክብካቤን ለመለማመድ የሚረዱትን አስተዋፅዎችና መሰናክሎች ለመመርመር የተዘጋጀ መጠይቅ፡

የእናት ማህበራዊ መገለጫዎች	መልሶች
ዕድሜ (በዓመት)	---------- ዓመት
የእናት ሃይማኖት	1.ኦርቶዶክስ 2. ሙስሊም 3. ካቶሊክ 4. ፕሮቴስታንት 5. ሌሎች ይጥቀሱ -----

የመኖሪያ ቦታ	1. ከተማ 2. ገጠር
የእናት ክልል	1. ትግራይ 2. አማራ 3. ኦሮሚያ 4. ደቡብ 5. ሌላ ------
የእናት የጋብቻ ሁኔታ	1. ያላገባች 2. ያገባች 3. የፈታች 4. ባሏ የሞተ 5. ተለያይተዉ የሚኖሩ
የእናት የትምህርት ሁኔታ	1. ያልተማረች 2. የሚያነቡ እና የሚጽፉ 3.አንደኛ ደረጃ 4. ሁለተኛ ደረጃ 5. ኮሌጅ እና ከዚያ በላይ

የእናት ስራ	፪. የቤት እመቤት 2. የመንግስት ሰራተኛ 3. በግል ተቀጥራ የምትሠራ 4. ሌሎች ----------
ወርሃዊ ገቢ (በ ኢትዮጵያ ብር)	---------- (ኢትዮጵያ) ብር
የህጻኑ ጾታ	1. ወንድ 2. ሴት
የህጻኑ ክብደት	---------- ኪ.ግ.

አሁን ስለ ካንጋሮ እናት እንክብካቤ ማውራት እፈልጋለሁ

ጥያቄዎች	መልሶች
ዋና ጥያቄ 1. ለጨቅላ እና ዝቅተኛ ክብደት ላላቸዉ ሕፃናት የካንጋሮ እናት እንክብካቤ ስለሚሰጠዉ ጥቅሞች ምን ያስባሉ?	ምርመራ፡ ➢ ከእናት ጋር ትስስር እንዲኖር ይረዳል ➢ የሕፃናትን ሙቀት ይጠብቃል ➢ ምግብ/ጡት እመመገቡ ይረዳል

2. የካንጋሮ እናት እንክብካቤን እስከፊለጉት መጠን ድረስ ለመተግበር የሚያመቻቹ ሁኔታዎች ምን ምን ናቸው? ንዑስ ጥያቄዎች ሀ. ስለካንጋሮ እናት እንክብካቤ የማህበረሰቡን ድጋፍ እንዴት ይገልፁታል? 2. ስለካንጋሮ እናት እንክብካቤ የቤተሰብ አባልን ድጋፍ እንዴት ይገልፁታል? 3. ስለካንጋሮ እናት እንክብካቤ የጤና ሠራተኛን ድጋፍ እንዴት ይገልፁታል? 4. ስለ የካንጋሮ እናት እንክብካቤ ባህላዊ እና ሃይማኖታዊ ድጋፍ ምን ይላሉ?	➢ ሌላ ምርመራ፡ ➢ ተቀባይነት ➢ ባህል ➢ ሃይማኖት ➢ እምነት
ዋና ጥያቄ 3. ለጨቅላ እና ዝቅተኛ ክብደት ላላቸው ሕፃናት የካንጋሮ እናት እንክብካቤን ለመጠቀም እንቅፋቶች እና ፈታኝ ሁኔታዎች ምንድን ናቸው? ንዑስ ጥያቄዎች ሀ. ስለካንጋሮ እናት እንክብካቤ ልምምድ የማህበረሰብ አቀፍ መሰናክሎችን እንዴት	ምርመራ፡ ➢ ተቀባይነት ➢ ባህል ➢ ሃይማኖት ➢ እምነት

ይገልፁታል? ለ. ስለካንጋሮ እናት እንክብካቤ ልምምድ ባህላዊ እና ሃይማኖታዊ መሰናክሎችን እንዴት ይገልፁታል? ሐ. ስለካንጋሮ እናት እንክብካቤ ልምምድ በጤና ሠራተኛዉ በኩል ያሉ መሰናክሎችን እንዴት ይገልፃሉ? መ. ስለካንጋሮ እናት እንክብካቤ ልምምድ ከጊዜ አጠቃቀም ሁኔታ ጋር የተዛመዱ መሰናክሎችን እንዴት ይገልፁታል? ሠ. ስለካንጋሮ እናት እንክብካቤ ልምምድ ከጤና ሁኔታ ጋር የተዛመዱ መሰናክሎችን እንዴት ይገልፁታል? N.B. ለውይይታች እና ለግኝታችን አስፈላጊ ነው ብለው ያሰቡት ግና ያልጨመሩት ሌላ ነገር አለ?	

በካንጋሮ እናት እንክብካቤ ክፍል ውስጥ በሚሠሩ ነርሶች መካከል የካንጋሮ እናት እንክብካቤን ለመተግበር የሚረዱትን አስተዋፅዎች እና መሰናክሎች ለመመርመር የተዘጋጀ መጠይቅ፡

ጥያቄዎች	**መልስ**
01. **የሙያ ሁኔታ**	
02. **የሥራ ልምድ**	**----------አመት**
ዋና ጥያቄ 1. **ለጨቅላ እና ዝቅተኛ ክብደት ላላቸው ሕፃናት የካንጋሮ እናት እንክብካቤ ጥቅሞች ምን ያስባሉ?** 2. **የካንጋሮ እናት እንክብካቤ ትግበራን የሚያነቃቁ ምክንያቶች ምንድን ናቸው?** **ንዑስ ጥያቄዎች** **ሀ. የጤና ባለሙያው ለካንጋሮ እናት እንክብካቤ ያለውን ድጋፍ እንዴት ይገልፁታል?** 2. **ስለካንጋሮ እናት እንክብካቤ የቤተሰብ አባል ድጋፍን እንዴት ይገልፁታል?**	**ምርመራ፡** ➢ **ከእናት ጋር ትስስር እንዲኖር ይረዳል** ➢ **የሕፃናትን ሙቀት ይጠብቃል** ➢ **ምግብ/ጡት እዲመገቡ ይረዳል** ➢ **ሌላ** **ምርመራ፡** ➢ **ተቀባይነት** ➢ **ባህል** ➢ **ሃይማኖት** ➢ **እምነት**

3. ለካንጋሮ እናት እንክብካቤ የጤና ስርዓቱን ድጋፍ እንዴት ይገልፃሉ 4. ስለ የካንጋሮ እናት እንክብካቤ ባህላዊ እና ሃይማኖታዊ ድጋፍ ምን ይላሉ? **ዋና ጥያቄ** 3. ለካንጋሮ እናት እንክብካቤ ትግበራ እንቅፋት እና ፈታኝ ሁኔታዎች ምን ምን ናቸው? **ንዑስ ጥያቄዎች** ሀ. ለካንጋሮ እናት እንክብካቤ ትግበራ በእናቶች በኩል የሉትን ፈታኝ ሁኔታዎች እንዴት ይገልፀታል? ለ. ለካንጋሮ እናት እንክብካቤ የጤና ስርዓቱን እንቅፋቶችን እንዴት ይገልፃሉ ሐ. ለካንጋሮ እናት እንክብካቤ ትግበራ ባህላዊ እና ሃይማኖታዊ መሰናክሎችን እንዴት ይገልፀታል? N.B. ለውይይታችን እና ለግኝታችን አስፈላጊ ነው ብለው ያሰቡት ግና ያልተጨመሩት ሌላ ነገር አለ?	**ምርመራ፡** ➢ ተቀባይነት ➢ ባህል ➢ ሃይማኖት ➢ እምነት