PREDICTORS OF EXCLUSIVE BREASTFEEDING AMONG WOMEN WITH CHILDREN AGED 6 TO 12 MONTHS IN MKURANGA DISTRICT, JUNE 2013

Doris Beda Katana

Master of Public Health Dissertation
Muhimbili University of Health and Allied Sciences
October, 2013

PREDICTORS OF EXCLUSIVE BREASTFEEDING AMONG WOMEN WITH CHILDREN AGED 6 TO 12 MONTHS IN MKURANGA DISTRICT, JUNE 2013

By

Doris Beda Katana

A Dissertation Submitted in (partial) Fulfillment of the Requirements for the Degree of Master of Public Health of the Muhimbili University of Health and Allied Sciences

Muhimbili University of Health and Allied Sciences

October, 2013

CERTIFICATION

The undersigned certifies that she has read and hereby recommends for acceptance of dissertation entitled **"Predictors of exclusive breastfeeding among women with children aged 6 to 12 months in Mkuranga District, June 2013"** in fulfillment of the requirements for the degree of Master of Public Health of the Muhimbili University of Health and Allied Sciences.

_____

Dr Anna Tengia-Kessy

(Supervisor)

_____

Date

DECLARATION
AND
COPYRIGHT

I, Doris Beda Katana, declare that this dissertation is my own original work, and that it has not been presented and will not be presented to any other university for a similar or any other degree award.

Signature: _____ Date: _____

ACKNOWLEDGMENTS

Many people and institutions have been instrumental to make this work a reality. It is not possible to mention all names, in this regard, for those whose names will not be specified in this list of acknowledgement, please accept my sincere apologies and I thank you all.

First and foremost, I wish to express my deepest gratitude to the Irish Embassy through the IRISH AID for financial support, which enabled me to pursue this programme. I am greatly indebted and do not have sufficient way of expressing my deepest gratitude to my supervisor Dr Anna Tengia-Kessy for her tireless dedication and highly qualified support, constructive comments, friendliness, inspiration and understanding. You provided just enough guidance which gave me confidence to think critically and help me find my own way and in doing so have left me feeling confident in my ability as a budding researcher. I feel fortunate to have had you not only as my supervisor but also as a mentor.

Special thanks go to the Managing Director of Tanzania Food and Nutrition Center (TFNC) for granting me a leave of absence throughout my study period. I greatly appreciate the friendliness, support and encouragement of my classmates for the wonderful times together. I strongly believe that our networking will continue.

My family has been a great source of inspiration, support and encouragement throughout my study period. My special gratitude goes to my beloved husband Festus Patta for his dedication, perseverance, passion in education and continuous moral support. I thank you very much for the great care you gave to our children throughout this long journey.

Finally, to my children, Festus (Jr), Lucretia and Azariah who will never know what it means to me to have them in my life. I love you all.

DEDICATION

This work is dedicated to my lovely husband, Festus Ntung'unde Patta and to my children Festus (Jr), Lucretia and Azariah for their patience while I was away pursuing my studies.

ABSTRACT

Introduction: The World Health Organization (WHO) recommends that infants should be exclusively breastfed for the first six months of life to achieve optimal growth and development. Breast milk contains all the nutrients that an infant needs in the first 6 months of life and bioactive factors that augment the infant's immature immune system, providing protection against infection, and other factors that help digestion and absorption of nutrients. Exclusive breastfeeding (EBF) for the first six months of infants' life is a cost effective intervention in saving children's lives especially in developing countries. Despite all the advantages of EBF, in Tanzania many women still do not practice it as recommended. Women's decisions regarding breastfeeding may be influenced by social, environmental, physical and personal factors.

Main objective: To explore predictors of exclusive breastfeeding among women with children aged 6 to 12 months in Mkuranga District, Coast Region.

Methodology: This was a across sectional study involving 300 mothers with children aged 6 to 12 months and 10 elderly women residing in selected villages of Mkuranga District. The mothers were selected through multistage cluster sampling while the elderly women were conveniently identified within the households where the postnatal mothers were living. Information from the postnatal mothers and the elderly women was collected using a structured interview schedule and a key informant guide respectively. Data was entered and analyzed using Epi Info version 3.5.4 computer software. Bivariate analysis and multiple logistic regressions were performed to identify statistically significant predictors of exclusive breastfeeding.

Results: The highest proportion of mothers (81.3%) initiated breastfeeding within one hour after birth. Knowledge of EBF for the first six months of life was relatively high (86%) compared to the EBF practice (7%). In the multivariate analysis, mothers with knowledge on the duration of EBF (OR 5.56, p-value = 0.02) and the principle of emptying one breast first before shifting to the other (OR 18.34, p-value < 0.00) were significantly more likely to practice EBF compared to mothers who did not use this principle. Elderly women played a major role of caring for both newborns and mothers after delivery, but study findings showed that they had insufficient knowledge on EBF.

Conclusion: The predictors of EBF on the study area were knowledge on the duration of EBF and the time spent to empty one breast. Strategies targeting on improving breastfeeding knowledge and skills among mothers as well as elderly women may help to improve EBF in Mkuranga District.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

BFHI	Baby Friendly Hospital Initiative
DED	District Executive Director
DMO	District Medical Officer
EBF	Exclusive breastfeeding
IEC	Information , education and communication
KI	Key Informant
MUHAS	Muhimbili University of Health and Allied Sciences
RCH	Reproductive and Child Health
TBAs	Traditional Birth Attendants
TDHS	Tanzania Demographic and Health Survey
TFNC	Tanzania Food and Nutrition Center
UNICEF	United Nations Children's Fund
WHO	World Health Organization

DEFINITIONS OF OPERATIONAL TERMS

Exclusive breastfeeding: An infant receives only breast milk and no other liquids or solids, not even water, with the exception of drops or syrups consisting of vitamins, mineral supplements or medicine.

Grandmother: In this study, a grandmother is a woman aged 50 years and above who lived in the same household with a postnatal mother who participated in the survey. Such women were considered to have had the opportunity of assisting a newly delivered woman in the household.

Predictors of exclusive breastfeeding: These are factors which have an influence on the practice of exclusive breastfeeding, whether positively or negatively.

CHAPTER 1

1.0 BACKGROUND

Exclusive breastfeeding is the tendency that an infant will receive only breast milk from the mother or expressed breast milk, and no other liquids or solids with the exception of drops or syrups consisting of vitamins, mineral supplements, or medicines (Rao, 2007). WHO recommend that children should be EBF for 6 months of age, it is based on a report by an expert consultation group that showed breast milk alone could provide all the nutrient requirements of infants up to 6 months, except when there were medically accepted reasons for using breast milk substitutes (Kramer *et al*., 2002).

The benefits of exclusive breastfeeding for the baby may be observed in the short term or later years in the child's life. The short term benefits include protection from infections such as respiratory infections including pneumonia (Chantry *et al*., 2006; Roth and Caulfield, 2008; Hengstermann, 2010; Ladomenou and Moschandreas, 2010), otitis media (Hetzner and Razza, 2009) and diarrhoea diseases (Bhandari *et al*., 2003; Koyanagi and Humphrey, 2009; Duijts *et al*., 2010). The long term benefit of EBF includes significantly higher scores in intelligent quotient test among exclusively breastfed children as compared to non breastfed infant, hence signifying enhanced cognitive development on the later years (Sadler *et al*., 2001).

A mother can exclusive breastfeed her infant comfortably during the first six months if she is supported in initiating breastfeeding within one hour of delivery (WHO, 2011). She should also understand the correct positioning, how to attach the infant to the breast and when to shift to the second breast after the infant has empted the first. It is also momentous to assist her to have the knowledge and skills on how to express the breast milk and the importance of breastfeeding the infant frequently during the day and night and to continue to breastfeed even when the infant is sick as well as to increase the breastfeeding regularity during and after illness.

Factors influencing women's decision on EBF differ by demographic factors such as maternal age, marital status, education, race, socioeconomic status, cultural factors, parity and number of children at home. Social support and socio cultural factors also have a potential influence on woman's decision to breastfeed (Scott *et al*., 2006; Patil and Yadavannavar, 2011). Maternal attitudes toward breastfeeding and perceptions of infant health benefits of breastfeeding also influence the decision to breastfeed, poor or negative attitudes toward breastfeeding have been shown also to be barriers to initiating and sustaining breastfeeding (Berg and Ball, 2008).

Promoting EBF for the first six months requires involvement of all stakeholders from the national level to community and family level. Tanzania has made some efforts to encourage EBF. These include implementing the National Strategy of infant and young child nutrition, adopting the International Code of Marketing of Breast Milk Substitutes and Designated Products to National Regulations for Marketing of Breast Milk Substitutes and Designated Products. The national regulations provide a legal framework for the provision of safe and adequate nutrition for infants, through the protection, promotion and support of breastfeeding. It also safe guard proper use of breast milk substitutes, when these are necessary on the basis of adequate information through appropriate marketing and distribution.

In these efforts the government enacted the Employment and Labor Relation Act No. 6 of 2004 which provides for 84 paid days maternity leave for an employee who gives birth to one child and 100 days paid maternity leave for an employee giving birth to more than one child without forfeiting annual leave. The employee is also entitled of two hours paid breastfeeding break per day during working hours when she resumes at work. Also the government introduced Baby Friendly Hospital Initiative (BFHI) in 2004 with the aim of protecting, promoting and supporting breastfeeding practices, although only 31% of hospitals offering maternity services have ever been declared Baby Friendly by 2010. This means that many hospitals lack strong breastfeeding support in the country (Tanzania Food and Nutrition Center, 2011).

Among the 31% hospitals declared baby friendly, none of them was from Mkuranga District. Therefore this community based study which explores the predictors of exclusive breastfeeding from mothers with children aged 6 to 12 months in Mkuranga District may help the district in planning community based intervention to promote EBF.

1.1 Problem statement

Exclusive breastfeeding for the first six months of life is now considered as a global public health goal that is linked to reduction of infant morbidity and mortality, especially in the developing world (WHO, 2009). Despite substantial efforts to promote optimal child feeding practices in Tanzania, the prevalence of EBF in infants of 0-6 months has never reached 90% as recommended by World Health Organization (Agunbiade and Ogunleye, 2012). The Data available shows that, EBF from 0 to 6 months is 50%. Furthermore, 81% of infants aged less than two months were on exclusive breastfeeding but the proportion declines to 51% among infants between 2-3 months and 23% among those aged 4-5 months. Median duration of EBF is therefore 2.4 months (TDHS, 2010).

Exclusive breastfeeding for the first six months of life is important in developing countries wherein there exists a high burden of disease and low access to clean water and sanitation. Poor EBF practices among mothers in the community is associated with increased infant deaths due to acute respiratory infection and diarrhoea as well as from other infectious diseases (WHO, 2009). Breastfeeding during infancy appears to result in enhanced cognitive development during childhood (Sadler *et al*., 2001).

Predictors of exclusive breastfeeding vary widely between and within countries. They include urban or rural disparities, age, employment status, higher education, knowledge about breastfeeding techniques, positive attitudes towards EBF and intent to exclusively breastfeed before delivery. Other predictors are partner living with the woman, mode of delivery, birth weight of the infant, health system practices and community beliefs. These factors have all been shown to influence the prevalence of EBF in different areas (Nkala and Msuya, 2011).

Information on the predictors of EBF is, however, limited in different areas in Tanzania including rural settings like Mkuranga District. Thus, this study, aimed at determining the EBF predictors among women with children between 6-12 months of age in this particular district. The study findings provide important information to feed the efforts aimed at promoting EBF in the district.

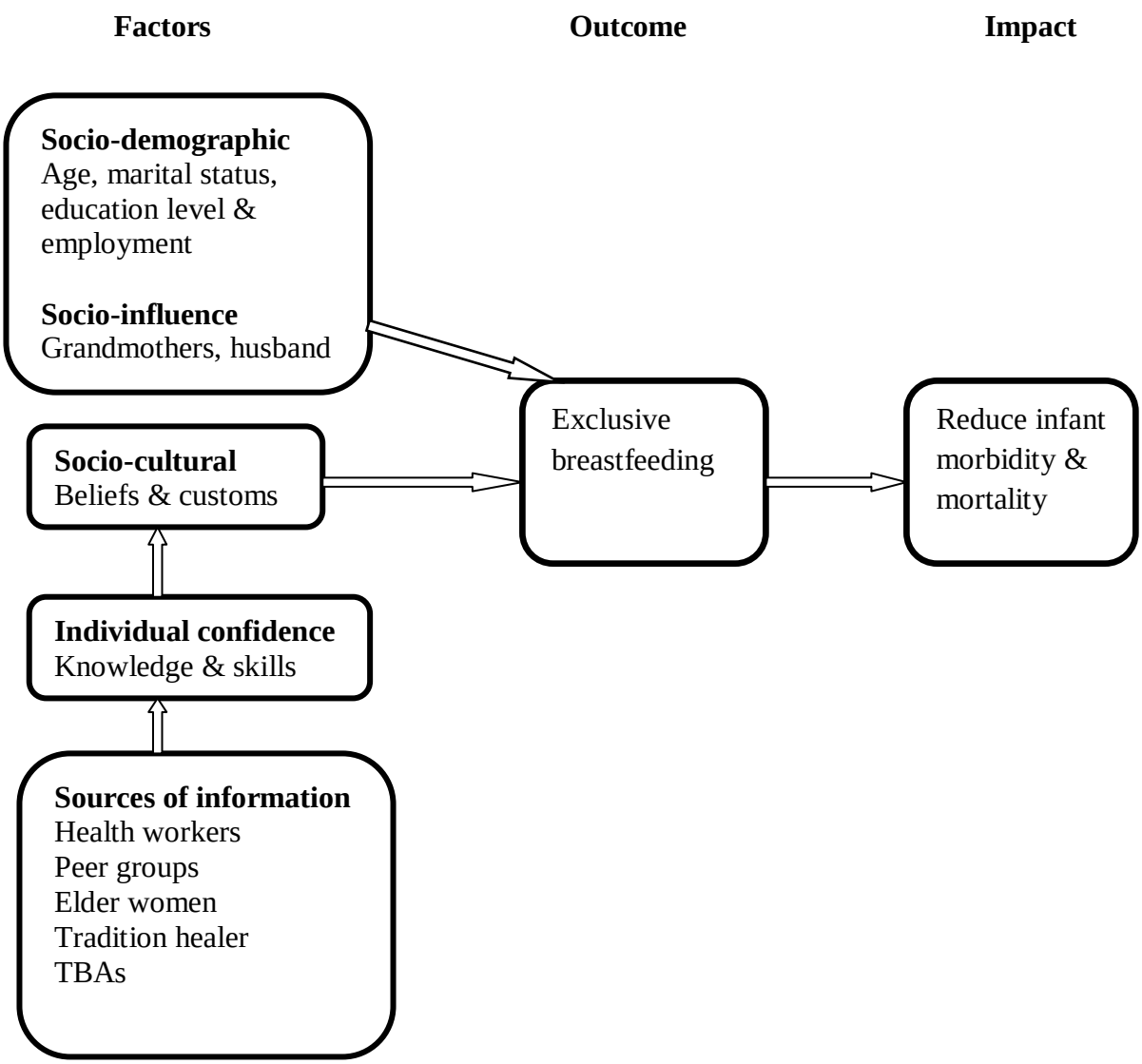
1.2 Rationale

A woman's ability to initiate and continue breastfeeding is influenced by most of community-based factors. Family members such as fathers and babies' grandmothers are important parts of a mother's decisions and practice in relation to breastfeeding her infant (Hector *et al*., 2005). In addition, the knowledge and experience of the mother are the major factors of breastfeeding practices. The extent to which each of these entities supports or discourages breastfeeding can be crucial to a mother's success in breastfeeding.

This study explored the predictors of EBF among mothers in Mkuranga District. Acquiring information on these predictors may better equip policy makers and public health practitioners in designing and implementing effective programs for community-based EBF promotion interventions in the study area, which will influence mothers' decisions and practices. The study findings contribute information in developing culturally appropriate key messages, program policies and initiatives to support EBF.

Also the study examined the knowledge gaps regarding EBF among grandmothers, which will help in designing intervention programs to remedy the identified gaps in order to facilitate the communication of correct information and skills from these important stakeholders to mothers in the study area.

1.3 Conceptual framework



A mother can breastfeed her baby exclusively if she builds self confidence after getting correct advice and acquiring skills regarding EBF practice for the first six months of life. The sources of advice may be health workers in the health facilities, traditional birth attendants (TBAs), traditional healers, peers or elderly women (grandmothers), especially those living within their vicinity. Likewise, beliefs and customs in a given area are some of the major factors influencing EBF.

1.4 Study questions

The main study question was "What are the predictors of EBF among women with children aged 6 to 12 months in Mkuranga District?" The sub-questions included:

a) What is the association between EBF practices and mothers' knowledge on breastfeeding?
b) What do elderly women understand about infant and young child feeding?
c) What are the roles of the elderly women in promoting EBF in the community?
d) What is the association between socio demographic characteristics and EBF?
e) What are the EBF challenges in the study area?

1.5 Objectives

1.5.1 Main objective

To explore predictors of exclusive breastfeeding among women with children aged 6 to 12 months in Mkuranga District by June 2013.

1.5.2 Specific objectives

1. To determine breastfeeding practices among mothers with children aged 6 to 12 months in Mkuranga District.
2. To assess knowledge on breastfeeding among the mothers.
3. To determine the understanding of the elderly women on infant and young child feeding.
4. To determine the roles of elderly women in promoting exclusive breastfeeding in the community.
5. To describe challenges of exclusive breastfeeding among the mothers.

CHAPTER 2

2.0 LITERATURE REVIEW

2.1 General overview of breast feeding

Breastfeeding is perceived as essential to baby's health in many cultures. It is a natural thing which provides infants with all nutritional needs, immunity and possible reduction in the chance of becoming ill, so reduce future health care spending (WHO, 2009). The simple act of breastfeeding can save countless lives and increase the chances of survival of infants and young children. The promotion of breastfeeding, especially in developing countries, is a public health issue of critical importance. Even though breastfeeding is a natural act, it is also a learned behaviour. In order for mothers to exclusively breastfeed for six months and continue to breastfeed for two years and beyond they need to be provided with relevant information and support from families, communities, health care system and supportive policies and regulations (Rajeshwari *et al*., 2010).

The sources of breastfeeding advice and support given to mothers may act as a supplementation or the barriers to exclusive breastfeeding practices. A mother can carry out exclusive breastfeeding comfortably during the first six months if she is supported in initiating breastfeeding within one hour of delivery (WHO, 2011). She should also understand the correct positioning and how to attach the infant to the breast and when to shift to the second breast. It is also momentous to assist her to have the knowledge and skills on how to express the breast milk and the importance of breastfeeding the infant frequently during the day and night and to continue to breastfeed appropriately even when the infant is sick.

2.2 Breastfeeding support and advice

There are many sources of support and advice that breastfeeding mothers will have access regarding breastfeeding without any out-of-pocket costs. This support may come from different sources including health professionals, organizations, community and family members. Social support is highly important for the success of breastfeeding. It can be provided in many ways, both by lay people and health professionals. Support

from the baby's father through active participation in the breastfeeding decision, together with a positive attitude and knowledge about breastfeeding benefits, have been shown to enhance breastfeeding (Ekström *et al*., 2003)

Within the family, the mother of the new mother and mother in law have a great influence on infant feeding practices followed by other individuals in the family (Morrow *et al*., 1999). The maternal grandmother exerts the most influence on the early introduction of solids and other practices which are counter-productive to EBF (Bentley *et al*., 1999; WHO, 2006). These grandmothers are very important in influencing the infant decision-making of teen mothers (Grassley and Eschiti 2008; Sam, 2008).The success rate among mothers who want to breastfeed can be greatly improved through active support from their families, friends, communities, clinicians, health care leaders, employers and policy makers.

2.3 Exclusive breastfeeding

Exclusive breastfeeding has received more attention in view of its impact on infant survival in low-income countries (Arifeen *et al*., 2001; Jones *et al*., 2003; Bhutta *et al*., 2008). WHO, based on a report by an expert consultation group, shows that breast milk alone could provide all the nutrient requirements of infants up to 6 months, and so recommended that all children should be on EBF for the first six months of life regardless of the HIV status, unless when there are medically accepted reasons for using breast milk substitutes (WHO, 2006). The benefits of EBF for both mother and child are universally acknowledged. Exclusive breastfeeding for the first six months has been found to help in reducing infant mortality from illnesses such as diarrhoea and pneumonia resulting from contaminated water (Kramer and Kakuma, 2012). It provides a number of health advantages beginning at birth and continuing throughout a child's life by providing passive immunity/protection against specific diseases and infectious illnesses including otitis media, allergies, vomiting and diarrhea, pneumonia, bronchiolitis, wheezing, and meningitis. These advantages were confirmed by later reports emphasizing the adequacy of EBF in the first 6 months of life (Butte *et al*., 2002).

It has been reported from observational studies that, even in hot climates, exclusively breastfed infants can maintain good hydration status (Sachdev *et al*., 1991; Ashraf *et al*., 1993). However, it is considered a strange concept not commonly practiced in many cultures, even those that are generally sympathetic to breastfeeding (Davies-Adetugbo, 1997).

2.4 Factors affecting exclusive breastfeeding practice

Factors affecting EBF are interrelated and may confound each other (Agunbiade and Ogunleye, 2012). The mismatch between breastfeeding intention and the practice of EBF indicates the existence of conflict revolving around intentions, normative expectations, and social pressures to practice EBF among the breastfeeding mothers.

Family opposition, especially grandmothers, and personal decision-making are the major constraints reported by women who had never practiced EBF (Uchendu *et al*., 2009). Grandmothers' own infant feeding experience and knowledge can influence mothers' decisions to initiate and continue breastfeeding or not (Iliff *et al*., 2005; Grassley and Eschiti, 2008).

The family structure, in the form of extended families, should also be considered as supportive in promoting the practice of breastfeeding, especially at the level of early initiation. Practice of EBF among mothers is perceived as a subjective norm of an exemplary mother, the joy attached to childbirth, personal resolutions, spouse, and mother-in-law's support as modifiers and insulators from social and psychological constraints in some respect (Otoo, 2009; Oweis *et al*., 2009).

The other obstacles to exclusive breastfeeding identified were maternal employment, breast and nipple problems, perceived milk insufficiency, and pressure from family (Agunbiade and Ogunleye, 2012).

Traditional beliefs and attitudes influence breastfeeding practices in different settings (Nwankwo and Brieger, 2002; Engebretsen and Wamani, 2007; Fjeld and Siziya, 2008; Tylleskar, 2009). Some cultures regarded colostrum as unclean and unsuitable for feeding babies, and pre-lacteal feeds are commonly given (Semega-Janneh and Bøhler, 2001; Ssenyonga, 2004). In many cultures, mothers are supposed to give something in addition to the breast milk. Many of these cultures encourage the practice of giving extra water, herbs and "teas" to breastfeeding babies (Semega-Janneh and Bøhler, 2001; Shirima *et al*., 2001; Nwankwo and Brieger, 2002; Arts *et al*., 2010). For example, various studies report the existing community notion that exclusive breastfeeding is dangerous to the infant, thought to require water to quench thirst and promote normal development (Engebretsen and Tylleskär, 2008; Fadnes, 2010).

Socio-demographic factors also affect EBF practices. The major socio-demographic factors that affect breastfeeding practices include age, marital status, education and income level (Dennis, 2002; McLeod *et al*., 2002). Younger mothers are less likely to follow the WHO recommendations for infant feeding and are more likely than older mothers to introduce solid foods early to their infants (Blyth *et al*., 2004; Forster *et al*., 2006). Maternal education levels also appear to influence exclusive breastfeeding; mothers with higher education levels are more likely to follow feeding recommendations and less likely to introduce solid foods early compared to mothers with lower education levels (Blyth *et al*., 2004; Coleman, 2006). Studies have also documented that mothers with higher income levels are more likely to follow infant feeding recommendations and less likely to introduce solid foods early as compared to mothers with lower income status (Alder *et al*., 2004; Coleman, 2006). The sex of the baby may also influence exclusive breastfeeding; a Scottish study (Alder *et al*., 2004) found that male babies were introduced to other foods earlier than female babies, whereas in a Norwegian study female babies had higher odds of timely introduction to solid foods than male babies (Lande *et al*., 2003).

Individual mother's confidence is the main factor influencing adequate duration of EBF breastfeeding. Many women perceive breast milk alone as not enough to cater for the baby's needs and so they introduce complementary foods early (Nwankwo and Brieger, 2002; Engebretsen and Wamani, 2007). In spite of the structural constraints, breastfeeding experiences differ among mothers. Promoting the implementation of EBF requires involvement of all the stakeholders in infant feeding issues at the family level, in the wider community and among the health workers.

CHAPTER 3

3.0 METHODOLOGY

3.1 Area of study

Mkuranga District is one of the six districts that form the Coast Region. The district is divided into 4 administrative divisions that are further subdivided into 18 wards. It covers an area of 2,432 square kilometers and has an estimated population of 222,921 people (National Bureau of Statistics, 2013). Most of the residents are peasants and are engaged in subsistence agriculture. The cash crops are cashew nuts, coconuts, pineapples and oranges, while the food crops are mainly cassava, rice and beans.

Traditional health care systems that operate in the district include traditional healers and tradition birth attendants. The district socio-demographics are a blend of both the urban and rural characteristics due to proximity to Dar es Salaam City, although most of the villages are remote with rural characteristics.

Mkuranga District has 34 health facilities but none of them has been declared as Baby Friendly (Tanzania Food and Nutrition Center, 2011). According to recent data, a quarter (25.1%) of the expecting mothers in Coast Region delivered at home while 26.2% of women of reproductive age (15 to 49 years) have never attended school (TDHS, 2010). According to Mkuranga District health information system report, illiteracy rate in the district is 43%. The antenatal clinic attendance is 90% whereas 72.6% of pregnant women deliver in health facilities. The infant mortality rate was 65 (11/1000) while under five mortality rate was 12 (209/100,000) (Mkuranga District, 2012).

3.2 Study design

This was across sectional study in design using both quantitative and qualitative methods of data collection.

3.3 Study population

3.3.1 Study population for the survey

The study included all women with children aged 6 to 12 months in the selected villages.

3.3.2 Study population for qualitative component

Elderly women (women aged 50 years and above) who lived in the same households with mothers who were selected for the survey were included. These women, based on their roles, their infant feeding experiences and knowledge they can exert influence on mothers' decisions to initiate and continue breastfeeding (Grassley *et al*., 2008).

3.3.2.1 Inclusion and exclusion criteria for qualitative study population

All elderly women aged 50 years and above living in the same households with the postnatal mothers were potential respondents for the study. Women who were not living in the same households with the postnatal mothers regardless of their support to these mothers were not included in the study.

3.4 Sample size

3.4.1 Sample size for the quantitative study

The sample size was calculated using the formula for single proportion assuming a large population. (Lwanga *et al*., 1991; Daniel, 1999)

$$n = \frac{Z^2 P (1-P)}{E^2}$$

Where:

n = Sample size

Z=Standard normal deviation, a constant set at the 95% confidence interval, which is 1.96

P= Proportion of women who practice exclusive breastfeeding in Tanzania which is 50% (TDHS, 2010)

E = Margin of error, set at 7%

$$n = \frac{1.96^2 \text{ X}0.5 \text{ X } (1 - 0.5)}{0.07^2} = 196$$

Therefore 196 multiplied by 1.5 (design effect)

196 x 1.5 = 294

The minimum sample size was 294 mothers with children aged 6 to 12 months.

3.4.2 Sample size for the qualitative study

Ten elderly women aged 50 years and above were involved in the in-depth interviews. The sample size was limited by saturation point of information.

3.5 Sampling procedure

Mkuranga District was purposely selected due to the fact that the district is one of the districts near Dar es Salaam City with rural life characteristics among its residents. It was assumed that, the findings of breastfeeding practices in Mkuranga District might provide an indicative picture of other rural communities in the country.

3.5.1 Sampling procedure for the quantitative study

Respondents in the quantitative study were recruited using multi-stage cluster sampling technique. The first stage involved random selection of two divisions among the four divisions, and then one ward was randomly selected from each of the 2 divisions. Then 3 villages were randomly selected from each of the 2 wards, giving a total of 6 villages**.** Women who met the inclusion criteria in the households within these 6 villages were eligible to participate in the study. The research team together with local community leaders did a quick household listing exercise of all eligible women. In the respective village households, a maximum of 50 women from each village were randomly selected from the list assuming that the population was more likely the same in each selected village.

3.5.2 Sampling procedure for qualitative study

A total of 10 elderly women were included in the in-depth interview, 6 from Kisiju division and 4 from Mkamba division. During the household quantitative data collection, elderly women aged 50 years and above who were living in the same households with the postnatal mothers were invited to participate in the in-depth interviews. The saturation point was reached after interviewing 6 respondents from Kisiju division and 4 from Mkamba division.

3.6 Study instruments

A structured interview schedule was used for the quantitative data collection. This instrument had four sections. The first section comprised of questions that elicited respondents' background information such as age, level of education, place of childbirth, occupation and marital status. The second section focused on child information while the third section concentrated on questions on exclusive breastfeeding whereas the last section elicited mothers' knowledge on breastfeeding including questions on importance of breastfeeding, recommended time for initiating breastfeeding, recommended duration for exclusive breastfeeding, pre-lacteal feeding, what helps the mother to increase the flow of milk and knowledge on how to express breast milk. Also factors perceived as encouraging or discouraging exclusive breastfeeding as well as challenges of breastfeeding were included.

For the qualitative data, an interview guide for in-depth interviews with elderly women was used. The main themes related to initiation of breastfeeding, support given to breastfeeding mothers and what these elderly women do in promoting breastfeeding.

3.7 Recruitment and training

A total of three persons were recruited as research assistants, one was from District Medical Officer (DMO) office from the Mkuranga District, one village health care provider and the last one was form six leaver from Dar es Salaam. These research assistants were trained for one day. The training intended to familiarize them with the subject matter of the study, the research tools, research ethics and administrative issues. After their training they also participated in pre-testing of the research tools which gave them additional opportunity to understand the tools and the whole research process better.

3.8 Pre-testing of the tools

The tools were pre tested among 30 mothers and two elderly women in Kisarawe District because the population characteristics are similar between the two districts. The purpose of the pre test was to assess whether the intended research tools were clear and

also to test whether it was able to collect the required information. Necessary adjustments were made accordingly.

3.9 Data collection and procedures

Participants were first informed about the study and its aim, and those who agreed to participate were included in the study. Face-to-face interviews were conducted at participant's home, at a private spot away from other family members for confidentiality. The information was collected using Kiswahili version of a structured interview schedule because Kiswahili is a major language used in the study area.

Using an interview guide, 10 in-depth interviews with key informants (elderly women) were conducted by the researcher. All these interviews were conducted in Kiswahili language as this is the national medium of communication and people in the Coast Region are usually fluent in this language.

3.10 Study variables

The dependent variable of the study was exclusive breastfeeding. The independent variables for the survey included socio-demographic characteristics such as age, marital status, occupation, level of education and number of children. Others were family influence, knowledge, sources of advice and breastfeeding support. On the other hand, the independent variables for the key informants were breastfeeding experience, knowledge and their roles on support provide to postnatal mothers.

3.11 Quality control of data

The interview guide and the structured interview schedule were pre-tested in order to ensure that they captured all the required information based on the study objectives. The investigator who is quite knowledgeable on infant and young child feeding practices in addition to having adequate skills in qualitative data collection was responsible for conducting the in-depth interviews. Furthermore, adequate training of the research assistants and regular checks on the filled research instruments ensured quality control.

3.12 Data processing and analysis

3.12.1 Data processing

The data was cleaned and entered into Epi Info version 3.5.4 in duplicate on daily basis in order to correct any errors encountered during interviews. The duplicates of data files were validated against each other to further verification.

3.12.2 Data analysis

Data was entered and analyzed using Epi Info version 3.5.4 computer software. Respondents who were housewives, peasants and other (students) were coded as unemployed while respondents who were self employed, employed or doing small business were coded as employed in the bivariate analyses. Furthermore mothers who were single, widowed, divorced and separated were coded as living single.

Odds ratio (OR) and their 95% confidence intervals (CI) were used to assess the strength of association between several predictors of EBF. All of the predictors with p- value of < 0.05 in the bivariate analysis were included in the regression model. Multiple Logistic regressions have been performed to get independent predictors for exclusive breastfeeding. A p-value of < 0.05 was taken as significant.

Breastfeeding knowledge covers different issues such as knowledge on the importance of breastfeeding, recommended EBF duration, time for initiating breastfeeding, pre-lacteal feeding, knowledge on things which help mothers to increase the flow of breast milk and knowledge on how to express breast milk. The responses on knowledge were coded as “adequate knowledge” if a mother provided a correct response regarding the specific issue or mentioned at least two possible answers among the pre-listed responses regarding the issue in question. The knowledge response was coded as inadequate if a mother provided none or only one correct response regarding that issue.

Pre-lacteal feeds are those foods given to newborns before breast milk or before breastfeeding is established while breastfeeding social support include all types of support mothers receive after birth in their household which influence breastfeeding.

The in depth interview information was analyzed using content analysis approach. Firstly, the information was translated into English by the researcher. Both English and Kiswahili versions were given to a linguist to ensure proper and actual translation. Subsequently, the field notes were used to verify the translation to preserve the meaning of the participants' words. Data has been examined and categorized by respondent opinions. Finally the information under major and sub-categories was presented through summaries and narrative text based on the study objectives. The qualitative information has also been used to clarify and enhance the quantitative results.

3.13 Ethical considerations

Ethical approval to conduct this study was received from the Research Ethics Committee of the Muhimbili University of Health and Allied Sciences. Permission to conduct the study in the district was provided by the DMO. At all levels, participants were briefed on the study objectives and their consent was received by giving verbal approval before administering any of the research protocols. In addition, all the participants were informed of their right to withdraw their participation in the study at any stage. All the information was handled confidentially. Feedback of the study results will be provided to the Regional and District Medical Officers, who would be expected to use the findings in designing effective EBF promotion programs in the district.

3.14 Study Limitations

This study was a community-based survey whereby interviews were conducted from house to house. Due to the fact that, infants up to 12 months of age are estimated to be only 4% of the total population, getting 300 mothers with children aged from 6 to 12 months taking into account the limited time was difficult. For this reason a margin of error of 7% was used instead of the commonly used 5% level.

CHAPTER 4

4.0 RESULTS

This chapter presents results from interviews of 300 mothers with children aged 6 -12 months and also in-depth interview from 10 elderly women aged 50 years or more. All respondents who were requested to participate in this study agreed to participate.

4.1 Socio-demographic characteristics of the study population

A total of 300 women participated in the study, with the mean age of 27 years SD $\pm$ 7, range between 15-47 years while a tenth of them were teenagers. The highest proportions of the mothers were married/cohabiting (79.6%), had only primary education (55.7%), were peasants (56.0%) and had one to three children (57.0%) as shown on Table 1.

Table 1: Socio-demographic characteristics of mothers with children aged 6 -12 months

Variable	Number	Percentage
Age (years)		
15 – 19	32	10.7
20 – 24	84	28.0
25 – 29	72	24.0
30 – 34	60	20.0
≥ 35	52	17.3
Education		
Primary school	167	55.7
None	113	37.7
Secondary school	16	5.3
Adult education	4	1.3
Marital status		
Married/ Cohabiting	239	79.6
Single	47	15.7
Divorced/ Widowed	13	4.7
Number of children		
1-3 children	171	57.0
4 – 6 children	103	34.3
7 and above	26	8.7
Occupation		
Peasant	168	56.0
Housewife	64	21.3
Petty business	61	20.3
Employed and others	7	2.3

*Others represent students

Age and sex of respondent's children

The ages and sex of the children of mothers who participated in the survey are displayed on Table 2. Data shows that more than half of the children (57.7%) were aged between 10-12 moths and that there were slightly more female children (53.7%).

Table 2: Distribution of the age and sex of the children

Variable	Number	Percentage
Age (months)		
6 – 7	63	21.0
8 – 9	64	21.3
10-12	173	57.7
Sex		
Female	161	53.7
Male	139	46.3

4.2 Breastfeeding practices among mothers with children aged 6 to 12 months

The highest proportion of mothers 81.3% (244) initiated breastfeeding within one hour after birth; while 23 (7.7%) of them did not remember the time they started breastfeeding their infants. Among the 56 mothers who delayed breastfeeding, the main reasons attributed to this were that the mother was sick (55.4%) followed by 30.4% whose main reason was delayed breast milk secretion.

Pre-lacteal feeding was given to 6.0% of the infants and the most common pre-lacteal feed was plain water as shown on Table 3. The elderly women also emphasized this during the in-depth interview. They insisted that the child should be given warm water for cleansing the throat and remove the dirty in the stomach. Glucose water was another commonly mentioned pre-lacteal feed (33.3%).

“Normally I give warm water to clear and make the throat wet since breast milk at that time is heavy and may dry the throat. This water also helps to remove the dirty in the stomach. In addition, warm water speeds the removal of the dark stool from the intestines of the infant.” (KI, 2)

With the exemption of 4 mothers, all the others (98.7%) reported to feed their infants colostrums, the initial milk that comes out of their breast. However, only 21out of 300 mothers (7%) breastfeed their infants exclusively for the first six months. Majority of mothers (45%) exclusively breastfeed their children for 2-3 months; and this was also revealed in the key informant interviews as narrated.

"No, how can a baby survive for six months with breast milk only? They need some cassava porridge, because, it has smooth particles for a child to swallow." (KI, 1)

Table 3: Breastfeeding practices among mothers with children aged 6 to 12 months in Mkuranga District

Variable	Number	Percentages
Initiation of breastfeeding		
Within one hour	244	81.3
2 -4 hour	33	11.0
Don't know	23	7.7
Total	300	100.0
Reasons for delay initiation		
Delay milk secretion	17	30.4
Sick mother	31	55.4
Sick child	4	7.1
Other	4	7.1
Total	56	100.0
Giving pre-lacteal feeds		
Yes	18	6.0
No	282	94.0
Total	300	100.0
Types of pre-lacteal feeds		
Plain water	11	61.1
Glucose water	6	33.3
Cows' milk	1	5.6
Total	18	100.0
Feeding colostrums		
Yes	296	98.7
No	4	1.3
Total	300	100.0
Exclusive breastfeeding		
Below 2 months	51	17.0
2 -3 months	134	44.7
4 -5 months	94	31.3
At 6 months	21	7.0
Total	300	100.0

Reasons for mothers' not exclusive breastfeed for the first six months

Among 279 mothers who reported not to have exclusively breastfed their children for the first six months of life, their main reasons included baby crying excessively (67%) followed by insufficient breast milk (21.9%). Furthermore, 47.3% decided on their own to introduce other foods while 38.7% reported to have been advised by their mothers/mother in law. Slightly over a tenth (11.1%) of them were advised by their partners as shown on Table 4.

Table 4: Reasons for not exclusively breast feed for the first six months of life and the sources of advice on early complementation (n = 279)

Variable	Number	Percentage
Main reasons		
The baby was crying	187	67.0
Breast milk not sufficient	61	21.9
The baby was growing	25	9.0
Mother/Child was sick and resume to work	6	2.2
Total	279	100.0
Source of advice		
Self	132	47.3
Mother/mother in law	108	38.7
Partner	31	11.1
Health workers and others	8	2.8
Total	279	100.0

*others include mother's sister and her sister in law

4.3 Knowledge on breastfeeding among mothers with children aged 6 to 12 months

Questions on mother's knowledge were asked to elicit the knowledge on specific issues regarding exclusive breastfeeding. Regarding the recommended time for exclusive breastfeeding, 65% (195) of respondents said that a baby should be exclusively breastfed for the first 6 months of life while a sizeable proportion (10%) was not able to mention the time as shown in Figure1.

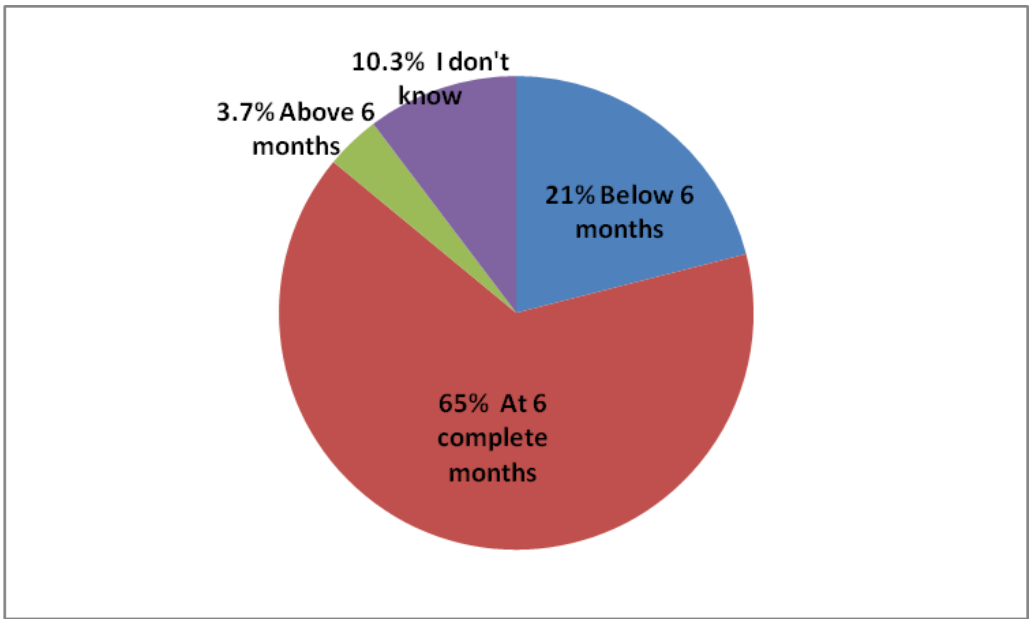


Figure 1: Knowledge on the duration of exclusive breastfeeding

Close to a tenth of the mothers (9.9%) had adequate knowledge on the importance of EBF and 8.9%, who had adequate knowledge on the recommended time for breastfeeding initiation, practiced exclusive breastfeeding to their children. Mothers with adequate knowledge on the importance of breastfeeding were 1.7 times more likely to practice EBF for the first six months compared to those with inadequate knowledge. Also mothers with adequate knowledge on the recommended time for breastfeeding initiation were three times more likely to practice exclusive breastfeeding than those with inadequate knowledge (OR = 3.05 and p-value = 0.07).

Respondents were asked a question on how to express breast milk. Results indicate that only one mother was able to explain how to express breast milk and this mother reported to have attended antenatal clinic in a different district. Expressing breast milk was not a common practice in the study area as was negatively commented by the elderly women:

"How can the human breast milk be expressed? This is a new thing for me at this age" (KI, 3)

"No expression of breast milk in our community. If it happens that a mother gets an emergency and has to leave her infant for some hours, we should feed this baby with other drinks like porridge" (KI, 4) Another KI lamented: *"If it happens someone expresses her milk, it will be the talk of the day in the mosque, in water sources and in the entire community"* (KI, 6)

On the other hand, only knowledge on the duration of exclusive breastfeeding (p-value = 0.01) was shown to be significantly association with breastfeeding practice (p-value > 0.05) as shown on Table 5.

Table 5: Knowledge on breastfeeding among the mothers

Knowledge	EBF Number (%)	Not EBF Number (%)	OR (95%CI)	p-value
Importance of breastfeeding				
Adequate knowledge	8 (9.9)	73 (90.1)	1.74	0.24
Inadequate knowledge	13 (5.9)	206 (94.1)		
Recommended time for breastfeeding initiation				
Adequate knowledge	18 (8.9)	185 (91.9)	3.05	0.07
Inadequate knowledge	3 (3.1)	94 (96.9)		
Pre-lacteal feeds				
Adequate knowledge	0 (0)	15 (100)	0.00	0.28
Inadequate knowledge	21 (7.4)	264 (92.6)		
Duration on EBF				
Adequate knowledge	19 (9.7)	176 (90.3)	0.18	0.01
Inadequate knowledge	2 (1.9)	103 (98.1)		

4.4 The understanding of elderly women on infant and young child feeding

Breastfeeding is recognized as important nutrient for the infant's growth by grandmothers in the study area. In general they spoke in favour of it and agreed that the breastfeeding should be initiated to the child just after birth and colostrum is very important for the health of the child.

"Breast milk is very important for baby just after the delivery; the yellowish milk protects the baby against diseases and helps the baby to grow well. A baby cannot contact so many diseases when it is breastfeeding". (KI, 5)

However grandmothers appeared to have a negative attitude towards EBF. They admitted that they have heard of the recommendation to exclusively breastfeed for six months from mothers who delivered in the health centers. They argue that the child could not survive on breast milk alone for the first six months and they emphasized that the child should be given warm water at least twice a day from the first day after delivery and continue as the child grows because the warm water will help to remove the dirty in the stomach and smoothen the throat.

"Normally I give warm water to clear and make the throat wet. The throat would be otherwise dry, because milk at that time is heavy. The water also helps to remove the dirty in the stomach as well as speeding up the infant to remove the dark stool."(KI, 2)

They believed that the baby is thirsty, the milk is not enough for the baby, and at least they need something heavy to feed their baby that will last much longer. The main complementary food mentioned by all was cassava porridge with the view that the smoothness of this type of porridge is appropriate for the child from first month of birth.

"No, how can a baby survive for the six months with breast milk only? They need some porridge. Normally cassava porridge because it has smooth particles that can be easily swallowed by a child". (KI, 1)

"It is impossible the baby to survive for six months with breast milk only, the baby needs other foods. Let us say that when the baby reaches 2–3 months is able to eat, so why not give the baby food like soft porridge". (KI, 9)

"When I advised my daughter to give her baby porridge after 1 month, she refused, she said that she was told at the clinic not to give the baby food until 6 months but when the baby reached 2 months she prepared herself cassava porridge for her baby because the breast milk was not enough at that time".(KI, 6)

The elderly women disputed that the problems identified by health workers as malnutrition among children are not really problems caused by poor breastfeeding or feeding practices but rather due to “dirty” breast milk from her/his mother. They argued that nowadays mothers continue with sexual intercourse and breastfeeding their babies at the same time, as opposed to the old past days when breastfeeding mothers completely refrained from sexual intercourse and their babies grew well and healthily.

“The problem of poor health among the children is not due to infant feeding is caused by the bad habits of the young parents, they prefer sex than the health of their children. Sexual intercourse contaminates the breast milk and makes it bad, so it affects the health of the baby”. (KI, 5)

They blamed the introduction of family planning as the source of influence of that habit. One elderly woman said that:

“This is not contributed to women alone but even their partners, as they do not consider the health of the children, because 40 days after delivery they start sleeping together. Only those who use condoms protect the breast milk from that dirty but other methods prevent pregnancy but affect the health of the child. This is the major problem in our community”

“The main source of this behavior is the introduction of artificial family planning methods which protect pregnancy without consideration of the young children who feed on their mothers’ breasts” (KI, 5).

The issue of continuing breastfeeding when the mother was pregnant was raised. All key informant interviewees argued that a new pregnancy would turn the milk 'poisonous' and hence it would be dangerous to breastfeed the child. On the other hand, they argued that the child should be taken to the tradition healer if the mother is recognized to have continued breastfeeding when she is pregnant otherwise the child would die.

"*The mother should stop breastfeeding immediately when she identifies that she is pregnant, because the breast milk can affect the health of the child at that time"* (KI, 6)

"The child who has been breastfeed when her/his mother is pregnant should be taken to the traditional healer for treatment and cleaning otherwise his/her health will deteriorate or even may die" (KI, 7)

4.5 Role of elderly women in promoting exclusive breastfeeding in the community

As it is shown in the Figure 2, 79.3% of mothers were assisted by elderly women at home after delivery. Even the elderly women admit that the mothers depend a lot on their support from pregnant up to 2 years of child age, so the elderly women are the most important players in transmitting knowledge about breastfeeding to the mothers.

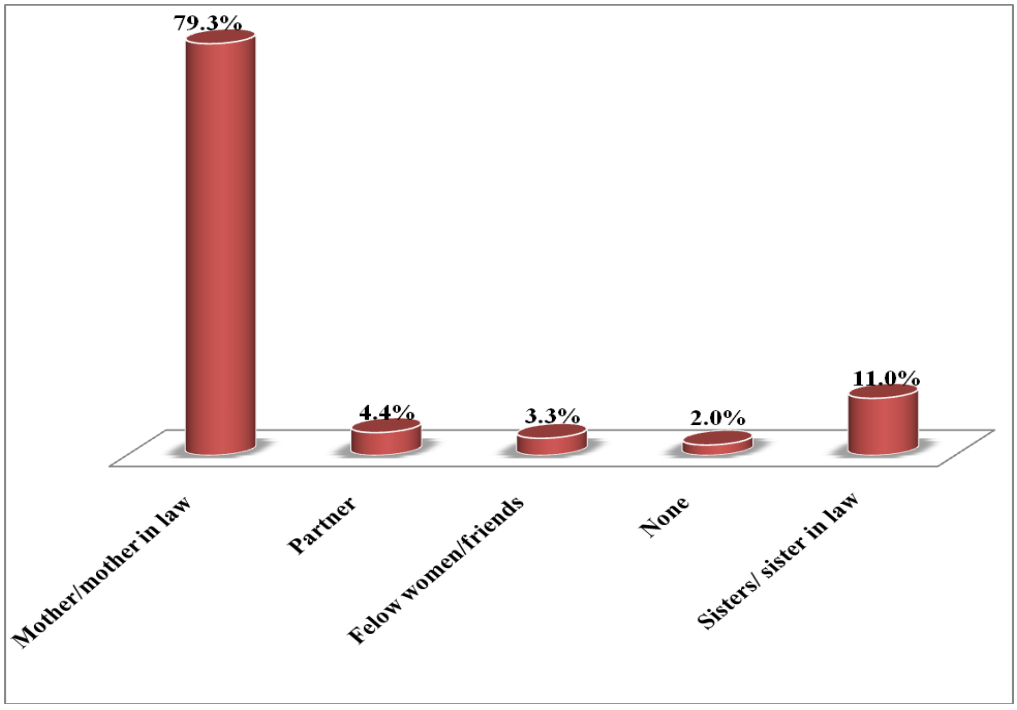


Figure 2: Type of persons assisting mothers after delivery

4.6: Association between socio-demographic characteristics and exclusive breastfeeding among the mothers

Employment status, time spent to breastfeed on one breast before shifting to the other and knowledge on how to express breast milk were found to have significant association with EBF in the bivariate analysis (p-value = 0.03 and OR 0.36). Other socio-demographic variables such as maternal education level, place of delivery and method of delivery had no significant association with exclusive breastfeeding. However health facilities delivery and increase in education level decrease the likely to practice of EBF among mothers so remained as protective factors against EBF (OR< 1 but p-value < 0.5).

On the other hand mothers who were either married/cohabiting and those who were not assisted by their mothers or mother in laws and those with four children or more were slightly more likely to practice EBF than those who were not married, assisted by mother/mother in law in the postnatal period and those with one to three children. However, none of these variables had statistically significant association with EBF practice as shown on Table 6.

Table 6: Association between socio-demographic and other characteristics with exclusive breastfeeding practices (n = 300)

Variables	EBF Number (%)	Not EBF Number (%)	OR (95%CI)	p-value
Education level				
None	11 (9.7)	102 (90.3)	0.52	0.14
Educated	10 (5.3)	177 (94.7)		
Marital status				
Married & cohabited	17 (7.1)	222 (92.9)	1.09	0.87
Living single	4 (6.6)	57 (93.4)		
Occupation				
Employed	8 (12.9)	54 (87.1)	0.37	0.03
Not employed	12 (5.2)	220 (94.8)		
Place of delivery				
Health facilities	19 (7.4)	238 (92.6)	0.61	0.51
Home	2 (4.7)	41 (95.3)		
Mode of delivery				
Normal	19 (7.0)	254 (93.0)	0.94	0.93
Caesarean section	2 (7.4)	25 (92.6)		
Time spent to breastfeed on one breast				
Empty one breast before shifting to the other	13 (38.2)	21 (61.8)	0.05	0.00
Shift to the other breast before empty the first	8 (3.0)	258 (97.0)		
Knowledge on the important of breastfeeding				
Adequate knowledge	8 (9.9)	73 (90.1)	0.58	0.23
Inadequate knowledge	13 (5.9)	206 (94.1)		
Knowledge on EBF duration				
Adequate knowledge	19 (9.7)	176 (90.3)	0.18	0.01
Inadequate knowledge	2 (1.9)	103 (98.1)		
Number of children				
1 – 3 children	9(5.3)	162 (94.7)	0.54	0.17
4 and above	12 (9.3)	117(90.7)		
Support at home after delivery				
Mother/mother in law	16 (6.7)	222 (93.3)	0.82	0.71
Others	5 (8.1)	57 (91.9)		

4.6 Predictors of exclusive breastfeeding

The multivariate analysis show that, time spent to breastfeed one breast and knowledge on the duration of exclusive breastfeeding was the only significant predictors of exclusive breastfeeding (p-value < 0.01 and 0.02 respectively). Mothers who are empting one breast before shifting to the other breast are 18 times more likely to practice exclusive breastfeeding than those who shift the baby to the other breast before empty the first during breastfeed.

Furthermore mother with adequate knowledge on the duration of exclusive breastfeeding are 5.5 times more likely to exclusive breastfeed her baby for the first six months than those with inadequate knowledge on the duration of EBF as shown on Table 7.

Table 7: Logistic regression for the predictors of exclusive breastfeeding

Variable	OR	95% CI	p-value
Occupation			
Employed	2.99	(1.20, 7.44)	0.11
Not employed			
Time spent to breastfeed one breast			
Empty one breast before shifting to the other	18.34	(6.76, 49.77)	< 0.01
Shift to the other breast before empty the first			
Knowledge on the duration on EBF			
Adequate knowledge	5.56	(1.27, 24.35)	0.02
Inadequate knowledge			

4.7 Challenges of exclusive breastfeeding among mothers in the community

Lack of correct EBF information/knowledge is the major challenge of exclusive breastfeeding identified by 86.7% of mother s in the study area followed by poor traditions and customs.

Table 8: Challenges of exclusive breastfeeding

Challenges (n = 300)	Yes (%)	No (%)
Lack of correct EBF information/ knowledge	86.7	13.3
Poor tradition and customs on EBF	30.7	69.3
Mother/mother in law influence	13.7	86.3
Partner influence	6.3	97.6
Short maternity leave	0.3	99.7

CHAPTER 5

5.0 DISCUSSION

5.1 Breastfeeding practices among mothers with children aged 6 to 12 months in Mkuranga District.

Exclusive breastfeeding for the first six months of the life of a child is now considered a global public health goal that is linked to reduction of infant morbidity and mortality, especially in the developing world (WHO, 2009). In Tanzania breastfeeding is the norm, but exclusive breastfeeding is not widely practiced. Water in addition to breast milk, may be given to quench a baby's thirst or simply by tradition.

The study revealed that only 7% of mothers with children aged 6 to 12 months practiced exclusive breastfeeding for the first six months. The main reasons for early complementation were excessive crying of a child (67%) and insufficient breast milk (21.9%). When a child cried, it was assumed that it was not satisfied with the mother's breast milk and hence crying for more heavy food. Similar findings have also been documented in a study done in Bolivia (McCann and Bender, 2006). When other foods are introduced, the frequency of breastfeeding is reduced leading to decreasing breast milk production and higher likelihood of early cessation of breastfeeding.

This study shows that majority of children started complementation at the age between 2-3 months, and that the initial food was usually cassava porridge. Such early complementary foods apart from being deficient in important nutrients are also likely to be contaminated during preparation in addition to digestive problems. They also reduce the uptake of breast milk which is the only recommended food for such infants. These finding is consistent with that of Tanzania Demographic and Health Survey which show that eleven percent of children below 2 months of age, 33 percent of children age 2-3 months, and 64 percent of children age 4-5 months are given complementary foods (TDHS, 2010).

5.2 Knowledge on breastfeeding among mothers with children aged 6 to 12 months in the community

The knowledge of EBF for the first six months was relatively higher (65%) compared to the practice. This is because mothers lack knowledge on the technique to practice exclusive breastfeeding. WHO asserts that a mother could carry out exclusive breastfeeding comfortably during the first six months if she is supported in initiating breastfeeding within one hour of delivery. She should also understand the correct positioning and how to attach the infant to the breast and when to shift to the second breast after the infant has emptied the first. It is also momentous to assist her to have the knowledge and skills on how to express the breast milk and the importance of breastfeeding the infant frequently during the day and night and to continue to breastfeed even when the infant is sick as well as to increase the breastfeeding regularity during and after illness (Lewallen, 2006).

The majority of mothers lack adequate breast feeding knowledge such on empting the first breast before shifting to other breast, how to express breast milk, sign that show that the baby is well positioned while breastfeeding and the important of breastfeeding. The shortage of knowledge among mothers may contribute to low EBF practices in the community. This was also reported by the study done by Shirima *et al* that, adequate and appropriate knowledge about breastfeeding issues has been shown to be associated with high rates and a longer duration of exclusive breastfeeding (Shirima *et al*., 2001).

5.3 The understanding of elderly women on infant and young child feeding

Grandmothers' own infant feeding experience and knowledge can influence mothers' decisions to initiate and continue breastfeeding or not (Iliff *et al*., 2005; Grassley and Eschiti, 2008). Family opposition, especially from grandmothers and other elderly women is the major constraint reported by mothers as a deterring factor in practicing EBF (Uchendu *et al*., 2009).

Result from this study showed that elderly women in Mkuranga District believed that the child should be given water from the first day of birth. Also they report that breast milk alone is not enough for the child for the first six months of birth, that's why they usually advise the mothers to feed their children cassava porridge from first months after birth. This finding is similar to that reported by the Tanzania Demographic and Health Survey which show that, in Tanzania the practice of feeding children with any solid or semi-solid foods starts early in life. Eleven percent of breastfeeding children in the first two months receive some kind of solid or semi-solid foods (TDHS, 2010).

The study revealed that elderly women believed that breast milk cannot be expressed and were surprised by this "new idea". Also they believed that if a breastfeeding woman is engaged in sexual intercourse the quality of her breast milk will deteriorate and therefore breastfeeding will harm the child. This strong negative belief is the main obstacle leading to the misinterpretation of malnutrition problems in the community. The lack of knowledge among elderly women has contributed a lot in impeding promotion of EBF in different areas. For instance, study done in Cameroon observed that even when women had adequate knowledge about the recommendation to EBF for six months, grandmothers are not actively involved in information, education and communication (IEC) activities on EBF and such initiatives largely target mothers (Kakute *et al*., 2005). Among grandmothers, lack of information on and support for EBF have been reported as a significant barriers to the continuation of breastfeeding (Omari *et al*., 2003).

5.4 The roles of elderly women in promoting exclusive breastfeeding in the community

Mother-in-law's support act as modifiers and insulators for a breastfeeding mother from social and psychological points of view (Agunbiade and Ogunleye, 2012). Ekström *et al* (2003) emphasizes the importance of grandparents support in increasing the duration of breastfeeding. In their study done in Sweden they found that, women whose mother told them about their breastfeeding history breastfed longer than women whose mothers did not. The study suggested that providing an opportunity to grandmothers to discuss their

breastfeeding perceptions with mothers was a helpful intervention to support breastfeeding (Ekström et al., 2003).

This study revealed that elderly women are the one who provide support to the mother and new child for the first three months after birth. Close to 79% of mothers were assisted by elderly women at home after delivery. Several studies conducted in African countries have documented the importance of elderly women in childcare and infant feeding. Studies in Mozambique and Malawi, for example, show that baby's grandmothers are particularly influential regarding infant feeding. Generally they highlighted the lack of autonomy and decision making power among young mothers, as decisions on infant feeding significantly in extended family (Bezner *et al*., 2008; Arts *et al*., 2010). The community believes a lot on elderly women on the issue related to infant and young childcare including infant feeding, so any efforts geared towards promotion of EBF should also targeting that group.

5.5 Association between socio-demographic characteristics and exclusive breastfeeding

Exclusive breastfeeding was not influenced by socio-demographic variables in the study area. These included maternal educational levels, age, occupation and marital status. These findings were similar with earlier findings from Morogoro which reported that mothers background factors has no significant association with exclusive breastfeeding (Shirima *et al*., 2001). Also other study done on Kigoma Region reported that there was no association between several socio-demographic factors (age, education, income, marital status, parity or employment) and EBF (Nkala and Msuya, 2011).

5.6 Predictors of exclusive breastfeeding practices among mothers

Knowledge on the duration of EBF, employment and the time spent to breastfeed on one breast before shifting to the other had significant association with exclusive breastfeeding in the bivariate analysis. However employment has no significant association when adjusted in the multivariate analysis. The reason for this is probably

that employment may depend on education level. Another predictor of EBF was knowledge on the EBF duration. This findings differ with that obtained from study conducted in Kigoma Municipal whereby knowledge about EBF and place of delivery had strong significant association with EBF in multivariate analysis (Nkala and Msuya, 2011).

Most dependent variables studied had no significant association with exclusive breastfeeding in multivariate analysis. The only predictor with strong significant association with EBF was the time spent to empty one breast, whereby mothers who reported to take adequate time to empty one breast were more likely to practice exclusive breastfeeding ($p< 0.01$) as compared to those who shifts their infants to the other breast before empting the first one.

5.7 Challenges of exclusive breastfeeding among mothers in the community

The World Health Organization recommends that women throughout the world should provide only breast milk for their children for the first six months of their life and continue to breastfeed, while introducing complementary foods, until children are two years old or longer (WHO, 2011). Despite this recommendation, only 7% of mothers in the study area do breastfeed exclusively for at least six months. Mothers are faced with multiple challenges as they strive to practice EBF, the major ones relating to lack of correct EBF information/ knowledge and poor tradition and customs on EBF.

Similarly, lack of correct knowledge on EBF was found to be among major challenges of EBF in Turkey, where more than one-third of mothers in the study reported that they stopped exclusive breastfeeding before six months because they believed that their milk would not provide adequate nutrition (Yesildal *et al*., 2008). In Malawi poor tradition and customs were reported as the challenge of EBF, whereby grandmothers were likely to give supplementary root infusions to infants based on the belief that breast milk alone would not satisfy an infant's hunger (Bezner *et al*., 2008).

A similar study conducted in Mozambique also found that, lack of knowledge about breastfeeding influenced most women to start practicing mixed feeding, including the introduction of water, traditional medicines and porridge to their babies, before they reached six months of age. Further observations in the same study indicated that women sometimes doubt the feasibility of EBF and lack conviction that a baby can grow healthily until the age of six months on breast milk alone (Arts *et al.*, 2010).

CHAPTER 6

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

Generally majority of mothers in Mkuranga District were not practicing exclusive breastfeeding (EBF) for the first six months. Findings indicate that most mothers had sufficient knowledge on the duration of EBF but they lacked the information on the breastfeeding techniques that promote EBF. The predictors of EBF in the study area were knowledge on the duration of EBF and the time spent to empty one breast, whereby mothers who emptied the first breast before shifting to the other were more likely to practice EBF compared to those who shifted their infants to the other breast before empting the first one. Elderly women played a major role in caring for the mother and newborn after delivery, but they had insufficient knowledge on EBF.

6.2 Recommendations

1. Findings from this study indicate that majority of mothers in Mkuranga District deliver in the health care facilities, and therefore further studies need to look into the quality of breastfeeding information provided to antenatal mothers while attending the clinics. This is important to ensure comprehensive education on breastfeeding to expecting mothers.

2. There is a need to introduce community-based interventions aiming at improving exclusive breastfeeding in the district that will incorporate elderly women. This is because such women play active roles in encouraging or discouraging exclusive breastfeeding practices among mothers.

3. Since a large group of mothers in Mkuranga reported to have never attended a formal school, health education strategies aiming at promoting breastfeeding in the area should focus more on using audio visual methods rather than print materials.

REFERENCES

Agunbiade OM, and Ogunleye OV. (2012) "Constraints to Exclusive Breastfeeding Practice Among Breastfeeding Mothers in Southwest Nigeria: Implications for Scaling Up." *International Breastfeeding Journal* 7(1):5

Alder E, Williams F, Anerson A, Forsyth S, and Vandervelde P. (2004). "What Influences the Introduction of Solids to Infants?" *British Journal of Nutrition* 92(3):527-531.

Arifeen S, Black RE, and Antelman G. (2001). "Exclusive Breastfeeding Reduces Acute Respiratory Infection and Diarrhea Deaths Among Infants in Dhaka Slums." *Pediatrics*. 108 (4): E67

Arts M, Geelhoed D, De Schacht C, Prosser W, Alons C, and Pedro A. (2010). "Knowledge, Beliefs, and Practices Regarding Exclusive Breastfeeding of Infants Younger Than 6 Months in Mozambique: a Qualitative Study." *Journal of Human Lactation* 27(1):25-32.

Ashraf RN, Jalil F, Aperia A, and Lindblad BS. (1993). "Additional Water Is Not Needed for Healthy Breastfed Babies in a Hot Climate." *Acta Paediatrica*. 6(82):1007-11

Bentley ME, Caulfield LE, Gross SM, Bronner Y, Jensen J, Kessler LA, and Paige DM. (1999). "Sources of Influence on Intention to Breastfeed Among African-American Women at Entry to WIC." *Journal of Human Lactation* 15(1):27-34.

Berg M, and Ball HL. (2008). "Practices, Advice and Support Regarding Prolonged Breastfeeding: a Descriptive Study from Sri Lanka." *Journal of Reproductive and Infant* Psychology 26 (3):229-243

Bezner Kerr R, Dakishoni L, Shumba L, Msachi R, and Chirwa M. (2008). "We Grandmothers Know Plenty: Breastfeeding, Complementary Feeding and the Multifaceted Role of Grandmothers in Malawi." *Social Science Medicine* 66(5):1095-1105.

Bhandari N, Bahl R, Mazumdar S, and Martines J. (2003). "Effect of Community-based Promotion of Exclusive Breastfeeding on Diarrhoeal Illness and Growth: a Cluster Randomised Controlled Trial." *Lancet*. 361(9367):1418-1423

Bhutta ZA, Ahmed T, Black RE, Cousens S, Dewey K, Giugliani E, Haider BA. (2008). "What Works? Interventions for Maternal and Child Undernutrition and Survival." *Lancet* 371(9610):41-440.

Blyth RJ, Creedy DK, Dennis CL, Moyle W, Pratt J, De Vries SM and Healy GN. (2004). "Breastfeeding Duration in an Australian Population: The Influence of Modifiable Antenatal Factors." *Journal of Human Lactation* 20(1):30-38.

Butte NF, Lopez-Alarcon MG, and Garza C. (2002). "*Nutrient Adequacy of Exclusive Breastfeeding for the Term Infant During the First Six Months of Life"*. WHO Documment. Geneva, Switzerland. [Acceced on 2013 July 1] Available from: https://www.who.int/entity/child/adolescent/health/documents/9241562110/en/index.html

Chantry CJ, Howard CR, and Auinger P. (2006). "Full Breastfeeding Duration and Associated Decrease in Respiratory Tract Infection in US Children." *Pediatrics*. 117(2):425-432.

Coleman BL. (2006). "Early Introduction of Non-formula Cow's Milk to Southern Ontario Infants." *Canadian Journal of Public Health* 97(3):187-190.

Davies-Adetugbo AA. (1997). "Sociocultural Factors and the Promotion of Exclusive Breastfeeding in Rural Yoruba Communities of Osun State, Nigeria." *Social Science and Medicine* 45(1):113-125

Dennis C. (2002). "Breastfeeding Peer Support: Maternal and Volunteer Perceptions from a Randomized Controlled Trial." *Birth Berkeley Calif* 29(3):169-176.

Duijts L, JaddoeVWV, Hofman A, and Moll HA. (2010). "Prolonged and Exclusive Breastfeeding Reduces the Risk of Infectious Diseases in Infancy." *Pediatrics*. 126(1):18-25

Ekström A, Widström AM, and Nissen E. (2003). "Breastfeeding Support from Partners and Grandmothers: Perceptions of Swedish Women." *Birth*. 30(4):261-266.

Engebretsen IMS, and Tylleskär T. (2008). "Determinants of Infant Growth in Eastern Uganda: a Community-based Cross-sectional Study." *BMC Public Health*. 8(4):418

Engebretsen IMS, and Wamani H. (2007). "Adherence to Exclusive Breastfeeding in Eastern Uganda: a Community-based Cross-sectional Study Comparing Dietary Recall Since Birth with 24-hour Recall." *BMC Pediatrics*. 7(12):708.

Fadnes LT. (2010). "Infant Feeding Counselling in Uganda in a Changing Environment with Focus on the General Population and HIV-positive Mothers-a Mixed Method Approach." *BMC Health Services Research*. 9(10):260-264

Fjeld E, and Siziya S. (2008). ", The Breast Alone Is Not Enough for My Baby'a Qualitative Assessment of Potentials and Barriers in the Promotion of Exclusive Breastfeeding in Southern Zambia." *International Breastfeeding Journal*. 3(26):1746-4358

Forster D, McLachlan H, and Lumley J. (2006). "Factors Associated with Breastfeeding at Six Months Postpartum in a Group of Australian Women." *International Breastfeeding Journal* 1(18):1-18.

Grassley J, and Eschiti V. (2008). "Grandmother Breastfeeding Support: What Do Mothers Need and Want?" *Birth*. 35(4):329-35.

Hector D, King L, Webb K, and Heywood, P. (2005). "Factors Affecting Breastfeeding Practices: Applying a Conceptual Framework." *New South Wales Public Health Bulletin* 16(4):52-55.

Hengstermann S. (2010). "Formula Feeding Is Associated with Increased Hospital Admissions Due to Infections Among Infants Younger Than 6 Months in Manila, Philippines." *Journal of Human Lactation.* 26(1):19-25.

Hetzner NMP, and RazzaRA. (2009). "Associations Among Feeding Behaviors During Infancy and Child Illness at Two Years." *Maternal and Child Health.* 13(6):795-805.

Iliff PJ, PiwozEG, and TavengwaNV. (2005). "Early Exclusive Breastfeeding Reduces the Risk of Postnatal HIV-1 Transmission and Increases HIV-free Survival." *Aids*. 19(7):699-708.

Jones G, Steketee RW, Black RE, Bhutta ZA, and Morris SS. (2003). "How Many Child Deaths Can We Prevent This Year?" *Lancet*. 362(9377):65-71.

Kakute PN, Ngum J, Mitchell P, Kroll KA, Forgwei GW, Ngwang LK, and Meyer DJ. (2005). "Cultural Barriers to Exclusive Breastfeeding by Mothers in a Rural Area of Cameroon, Africa." *Journal of Midwifery Womens Health* 50(4):324-328.

Koyanagi A, and Humphrey JH. (2009). "Effect of Early Exclusive Breastfeeding on Morbidity Among Infants Born to HIV-negative Mothers in Zimbabwe." *The American Journal of Clinical Nutrition* 89(5):1375-1382.

Kramer MS, Guo T, Platt RW, and Shapiro S. (2002). "Breastfeeding and Infant Growth: Biology or Bias*?" Pediatrics* 110(2):343-347.

Kramer MS, and Kakuma R. (2012). "Optimal Duration of Exclusive Breastfeeding." *The Cochrane Library*. Published Online: August 15, 2012 *Geneva* [Acceced on 2013 June 22] Available from: http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD003517.pub2/full.

Ladomenou F, and Moschandreas J. (2010). "Protective Effect of Exclusive Breastfeeding Against Infections During Infancy: a Prospective Study." *Archives of Disease in Childhood* 95(12):1004-1008.

Lande B, Andersen LF, Baerug A ,Trygg KU , Lund-Larsen K, Veierød MB and Bjørneboe GE. (2003). "Infant Feeding Practices and Associated Factors in the First Six Months of Life: The Norwegian Infant Nutrition Survey." *Acta Paediatrica* 92(2):152–161.

Lewallen LP. (2006). "A Review of Instruments Used to Predict Early Breastfeeding Attrition." *The Journal of Perinatal Education an ASPOLamaze Publication* 15(1):26-41.

McCann MF, and Bender DE. (2006). "Perceived Insufficient Milk as a Barrier to Optimal Infant Feeding: Examples from Bolivia." *Journal of Biosocial Science* 38(3):341-364.

McLeod D, Pullon S, and Cookson M. (2002). "Factors Influencing Continuation of Breastfeeding in a Cohort of Women." *Journal of Human Lactation* 18(4):335-343.

Mkuranga District (2012). "District Health Information System Report."

Morrow AL, Guerrero ML, Shults J, and Calva JJ. (1999). "Efficacy of Home-based Peer Counselling to Promote Exclusive Breastfeeding: a Randomised Controlled Trial." *Lancet*. 353(9160):1226-1231

National Bureau of Statistics (2013). "The 2012 Population and Housing Census (PHC) for United Republic of Tanzania".

National Bureau of Statistics (NBS) [Tanzania] and ICF Macro (2011). "Tanzania Demographic and Health Survey 2010" Dar es Salaam, Tanzania: NBS and ICF Macro

Nkala TE, and Msuya SE. (2011). "Prevalence and Predictors of Exclusive Breastfeeding Among Women in Kigoma Region. Western Tanzania: a Community Based Cross-sectional Study." *International Breastfeeding Journal*. 6(1):17-25

Nwankwo BO, and Brieger WR. (2002). "Exclusive Breastfeeding Is Undermined by Use of Other Liquids in Rural Southwestern Nigeria." *Journal of Tropical Pediatrics*. 12(3):125-138.

Omari AA, Luo C, Kankasa C, Bhat GJ, and Bunn J. (2003). "Infant-feeding Practices of Mothers of Known HIV Status in Lusaka, Zambia." *Health Policy and Planning* 18(2):156-162.

Otoo GE. (2009). "Perceived Incentives and Barriers to Exclusive Breastfeeding Among Periurban Ghanaian Women." *Journal of Human Lactation*. 25(1):34-41.

Oweis A, Tayem A, and Froelicher ES. (2009). "Breastfeeding Practices Among Jordanian Women." *Journal of Nursing Practice*. 15(1):32-40.

Patil SS, and Yadavannavar MC. (2011). "Socio Cultural Factors Affecting Breast Feeding Practices and Decisions in Rural Women." *International Journal of Plant, Animal and Environmental Science*. 1(2):541-549.

Rajeshwari K, Bang A, Chaturvedi P, Kumar V, Yadav B, Bharadva K, Gupta S. (2010). "Infant and Young Child Feeding Guidelines (2010)." *Indian Pediatrics* 48(7):995-1004.

Rao NN. (2007). "Breast Feeding and Sociodemographic Factors in Rural Tanzania: Which Factors Are Associated with Breast Feeding?"[Master Thesis in Nutrition] University of Oslo, Norway. [Acceced on 2013 Jul 1] Available from: http://hdl.handle.net/10852/28679

Roth DE, and Caulfield LE. (2008). "Acute Lower Respiratory Infections in Childhood: Opportunities for Reducing the Global Burden Through Nutritional Interventions." *Bulletin of the World Health Organization*. 86(5):356-364.

Sachdev HPS, Krishna J, and Puri RK. (1991). "Water Supplementation in Exclusively Breastfed Infants During Summer in the Tropics." *Lancet* 337(8747):929-933

Sadler LS, Anderson SA, and Sabatelli RM. (2001). "Parental Competence Among African American Adolescent Mothers and Grandmothers." *Journal of Pediatric Nursing* 16(4):217-233.

Scott JA, Binns CW, Graham KI, and Oddy WH. (2006). "Temporal Changes in the Determinants of Breastfeeding Initiation." *Birth* 33(1):37-45.

Semega-Janneh IJ, and Bøhler E. (2001). "Promoting Breastfeeding in Rural Gambia: Combining Traditional and Modern Knowledge." *Health Policy and Planning* 16(2):199-205

ShirimaR, Greiner T, Kylberg E, and Gebre-Medhin M. (2001). "Exclusive Breast-feeding Is Rarely Practised in Rural and Urban Morogoro, Tanzania." *Public Health Nutrition* 4(2):147-154.

Ssenyonga R. (2004). "Towards a Better Understanding of Exclusive Breastfeeding in the Era of HIV/AIDS: a Study of Prevalence and Factors Associated with Exclusive Breastfeeding from Birth," *Journal of Tropical Pediatrics*. 50(6):348-353

Tanzania Food and Nutrition Center (2011). "Baby Friendly Hospital Initiative External Assessment 2011 Report".

Tylleskar T, Tumwine JK, Fadnes LT, Engebretsen IM, Wamani H, and Semiyaga NB (2009). "Infant Feeding Among HIV-positive Mothers and the General Population Mothers: Comparison of Two Cross-sectional Surveys in Eastern Uganda." *BMC Public Health*. 9:124 doi: 10.1186/1471-2458-9-124

Uchendu UO, Ikefuna AN, and Emodi IJ. (2009). "Factors Associated with Exclusive Breastfeeding Among Mothers Seen at the University of Nigeria Teaching Hospital." *South African Journal of Child Health* 3(1):14-19

World Health Organization (2006). "Consensus Statement: HIV and Infant Feeding Technical Consultation." Geneva, Switzerland. [Acceced on 2013 Jul 1] Available from: http://www.who.int/nutrition/publications/Frequently/ask/question/Internationalcode.pdf

World Health Organization and UNICEF (2006). "Infant and Young Child Feeding Counselling: An Integrated Course." *Geneva, Switzerland*. [Acceced on 2013 June 22] Available from: http://www.who.int/nutrition/publications/infantfeeding/9789241594745/en/dex.html

World Health Organization (2011). "Exclusive Breastfeeding for Six Months Best for Babies Everywhere." Geneva, Switzerland. [Acceced on 2013 June 22] Available from: http://www.who.int/mediacentre/news/statements/2011/breastfeeding/20110115/en/index.html.

World Health Organization (2009). "Rapid Advice: Revised WHO Principles and Recommendations on Infant Feeding in the Context of HIV." *Geneva* [Acceced on 2013 June 22] Available from: http://www.who.int/hiv/pub/paediatric/advice/en/index.html.

Yesildal N, Gulsen A, Kenan K, Mayda AS, Dagli SC, and Bahcebasi T. (2008). "Breastfeeding Practices in Duzce, Turkey." *Journal of Human Lactation: Official Journal of International Lactation Consultant Association* 24(4):393-40

APPENDICES

Appendix 1: Interview schedule (English version)

STRUCTURED INTERVIEW SCHEDULE ON ASSESSMENT OF PREDICTORS OF EXCLUSIVE BREASTFEEDING AMONG WOMEN WITH CHILDREN AGED 6 TO 12 MONTHS IN MKURANGA DISTICT.

GENERAL INSTRUCTIONS:

1. **Any information collected will be strictly confidential**
2. **Circle all appropriate response**
3. **For open questions write the response given**

Identification of the area

Identification number.....

Division.....

Ward…….....…

Village…….

Date of interview…….....……

Name of inter viewer.....

SECTION 1: SOCIO-DEMOGRAPHIC INFORMATION OF THE MOTHER		
Qn 1.	How old are you?	……(Years)
Qn 2.	What is your tribe?	1. Zaramo 2. Ndengereko, 3. Matumbi 4. Makonde 5. Other (Specify)……..
Qn 3.	How many children do you have?	…….. (Number)
Qn 4.	What is your highest level of education?	1. None 2. Adult education 3. Primary 4. Secondary 5. University 6. Other (Specify)……..
Qn 5.	What is your current marital status?	1. Single 2. Married 3. Cohabiting 4. Separated/divorced 5. Widowed
Qn 6.	What is your current occupation	1. Housewife 2. Self Employed 3. Employed 4. Peasant 5. Petty business 6. Others (specify……

SECTION 2: CHILD INFORMATION		
Qn 7.	What is the date birth of your child?(Confirm it in RCH card)	…….. (Months)
Qn 8.	What is the sex of your child?	1. Female 2. Male
Qn 9.	What is the method of delivery for that child?	1. Normal 2. Caesarean section
Qn 10.	What is the place of delivery for that child?	1. Health facility 2. TBAs 3. Home 4. Other (Specify).....
Qn 12.	Who assisted you during delivery for that child?	1. Skilled health personnel 2. Tradition Birth attendant 3. Fellow woman 4. Other (Specify).....
Qn 13	Who assisted you and your infant at home after delivery?	1. Mother/mother in law 2. Partner 3. Fellow women/friends 4. None 5. Other (specify).....
SECTION 3: EXCLUSIVE BREASTFEEDING PRACTICES		
Qn 14.	How long after birth your child was put to the Breast	1. Within one hour 2. 2- 4 hours 3. Don't know 4. Other (Specify)……..... (If the answer not 1 go to Qn 15, if is qn 1 go to qn16)

Qn 15.	If the mother took more than one hour to initiate breastfeeding ask why?	1. Delay milk secretion 2. Sick mother 3. Sick child 4. Other (Specify).....
Qn 16.	Was anything introduced to your child before putting to the breast immediately after birth?	1. Yes 2. No (If yes go to Qn 17, 18 & 19, if no go to Qn 20)
Qn 17.	If yes what was offered to him / her?	1. Plain Water 2. Glucose water 3. Traditional medicine 4. Cows' milk 5. Light porridge 6. Other (Specify)……..
Qn 18.	If yes. Who advised you to give your child that thing before breastfeeding?	1. Health workers 2. Tradition healer 3. Mother/mother in law (Grandmother) 4. Peer group (Fellow mothers) 5. TBAs 6. Her self 7. Other (Specify)……
Qn 19.	What reasons for introducing other things before breastfeeding?	1. Immunity 2. Nutritious 3. Culture/traditionally 4. Don't know 5. Other (Specify).....
Qn 20.	Did you feed the baby the first yellowish milk (colostrums)?	1. Yes 2. No (If yes go to Qn 23, if no go Qn 21)
Qn 21.	If no, what are the reasons?	1. It is dirty 2. It may affect the child 3. I don't know

		4. Other (Specify).....
Qn 22.	Who advice you not to give your child colostrums?	1. Health workers 2. Tradition healer 3. Mother/mother in law (Grandmother) 4. Peer group (Fellow mothers) 5. TBAs 6. Her self 7. Other (Specify)……
Qn 23.	When did your child start taking other food/fluid than breast milk? (Time for exclusive breastfeeding)	1. Below 2months 2. 2- 3 months after birth 3. 4-5 months after birth 4. At 6 complete months 5. Above 6 months (If the answer is 4 go to Qn 26, if 1,2,3,or 5 go to Qn 24 & 25)
Qn 24.	If not at 6 complete months what, was the reason(s)	1. The baby was crying 2. Breast milk not sufficient 3. The baby was sick 4. Mother was sick 5. Resume to work 6. I think the baby is growing enough to start other food 7. Others (specify)……..
Qn 25.	Who advised you to introduce other foods than breast milk before 6 months?	1. My self 2. Mother/mother in law (Grandmothers) 3. Partner 4. Traditional healer 5. TBAs 6. Health workers 7. Other (specify).....
Qn 26.	When you breast your child, what time do you usually spend to breastfeed with one breast before shifting to the other breast?	1. When I feel the second breast full milk 2. Until the first breast milk empty 3. It happen without consider/ un knowing 4. I don't know 5. Other (specify).....
Qn 27.	When your child was under 6 months how many times a day did you breastfeed?	1. 2 times or less a day 2. 3-6 times 3. On demand 4. I don't know 5. Other (Specify).....

SECTION 4: KNOWLEDGE ON EXCLUSIVE BREASTFEEDING		
Qn 28.	Why is breastfeeding important	1. Nutritious 2. Protect against infectious 3. Prevent pregnant 4. In expensive 5. Other (Specify)…….. 3 or more = High knowledge 2 point = Low knowledge Below 2 point= Poor knowledge
Qn 29.	How long after birth of the child was it recommended to put the child on breast	1. Within one hour 2. After 2-4 hours 3. After 5 hours 4. Don't know 5. Other (Specify).....
Qn 30.	Was the child recommended to be given any thing before introducing breast milk?	1. Yes 2. No If the answer is "Yes" go to question 31, if "No" go to qn 32.
Qn 31.	If Yes. What things were recommended to be introduced to the child before putting him/her on the breast?	1. Plain Water 2. Glucose water 3. Herbs 4. Other (Specify)……..
Qn 32.	What helps the mother to increase the flow of milk?	1. Frequency of breastfeeding 2. Making sure breast is always emptied 3. Putting the baby correctly to the breast 4. Support from family, friends or health workers 5. Good feeling by the mother (No stress) 3 or more = High knowledge

		2 point = Low knowledge Below 2 point= Poor knowledge
Qn 33.	What is the recommended time for exclusive breastfeeding?	1. Below 2 months 2. 2- 3 months after birth 3. 4-5 months after birth 4. At 6 complete months 5. Above 6 months 6. I don't know If below 6 months go to qn 34
Qn 34.	What type of foods other than breastfeeding is given to a child under 6 months?	1. Cow's milk 2. Maize porridge 3. Lishe porridge 4. Soft Ugali 5. Mashed meat 6. Potatoes 7. Cassava porridge 8. Mashed banana 9. Others (Specify).....
Qn 35.	What is the recommended breastfeeding duration per day for the child under 6 months?	1. 2 times or less a day 2. 3-6 times 3. On demand 4. I don't know 5. Other (Specify).....
Qn 36.	Why is it recommended to exclusively breastfeed the child up to 6 months of life?	1. Provides all nutrients requirement 2. At that age the stomach is able to digest only breast milk. 3. Immunity 4. Other (Specify)..... 3 or more = High knowledge 2 point = Low knowledge Below 2 point= Poor knowledge

Qn.37	What are the signs that show you that the baby is well positioned while breastfeeding?	1. Baby's head and body in the line. 2. Baby approaches breast, nose to nipple 3. Baby's held close to mother's body 4. Baby 's whole body supported 5. Other (Specify)..... 3 or more = High knowledge 2 point = Low knowledge Below 2 point= Poor knowledge
Qn.38	What are the signs that indicate that a mother has attached her baby correctly to the breast?	1. More areola seen above baby's top lip 2. Baby's mouth open wide 3. Lower lip turned outwards 4. Baby's chin touches breast 5. Other (Specify)..... 3 or more = High knowledge 2 point = Low knowledge Below 2 point= Poor knowledge
Qn 39	Please explain how to express breast milk	....
Qn 40.	In your opinion, what things influence the mother to exclusively breastfeed for the first 6 months?	1. Proper information on exclusive breastfeeding 2. Support from family 3. Support from the spouse 4. Support from mother/mother in law 5. Good maternal health 6. Good child health 7. Other (Specify).....

Qn 41.	In your opinion, what are the barriers for the mother to exclusively breastfeed for 6 months?	1. Inadequate information on exclusive breastfeeding 2. Deep rooted traditional beliefs 3. Mother/mother in law influences 4. Partner influence 5. Short maternity leave 6. Other (Specify).....

Appendix 2: Interview schedule (Kiswahili version)

DODOSO LA UTAFITI KUHUSU VIGEZO VINAVYOSAIDIA KUWAWEZESHA KINAMAMA KUWANYONYESHA WATOTO MAZIWA YA MAMA PEKEE KWA MIEZI 6 YA MWANZO KATIKA WILAYA YA MKURANGA.

MAELEKEZO YA JUMLA:

1. **Maelezo yote yatakayo kusanywa yatatunzwa kwa usiri mkubwa.**
2. **Zungushia majibu yote sahii**
3. **Andika majibu kwa maswali yaliyoachwa wazi**

Utambulisho wa eneo

Namba ya dodoso.....

Tarafa.....

Kata…….....……

Kijiji…….

Tarehe ya usahili…….....…

Jina la msahili.....

KIPENGELE NAMBA 1: TAARIFA BINAFSI ZA MAMA		
Qn 1.	Je umri wako ni miaka mingapi?	……(Miaka)
Qn 2.	Je wewe ni kabila gani ?	1. Zaramo 2. Ndengereko, 3. Matumbi 4. Makonde 5. Jingine (Taja)……..
Qn 3.	Je una watoto wangapi?	…….. (Idadi)
Qn 4.	Je una elimu ya kiwango gani?	1. Sikusoma 2. Elimu ya watu wazima 3. Elimu ya shule ya msingi 4. Elimu ya sekondari 5. Elimu ya chuo kikuu 6. Nyingine (Taja)……..
Qn 5.	Je hali yako ya ndoa ni ipi?	1. Sijaolewa 2. Nimeolewa 3. Kimada 4. Nimeachika/Tumetengana 5. Mjane
Qn 6.	Je ni shuguli ipi kuu inakuingizia kipato?	1. Mama wa nyumbani 2. Nimejiajiri mwenyewe 3. Nimeajiriwa 4. Mkulima 5. Biashara ndogo ndogo 6. Nyingine (Taja)...……

KIPENGELE CHA 2: TAARIFA KUHUSU MTOTO		
Qn 7.	Je mtoto wako ana umri wa miezi mingapi? (Hakiki kwa kuangalia kadi ya kliniki)	…….. (Miezi)
Qn 8.	Jinsia ya mtoto?	1. Mke 2. Mme
Qn 9.	Je ulijifungua kwa njia gani?	1. Njia ya kawaida 2. Kwa upasuaji
Qn 10.	Je ulijifungulia wapi mtoto huyu?	1. Kituo cha afya 2. Kwa mkunga wa jadi 3. Nyumbani 4. Kwingine (Taja).....
Qn 12.	Nani alikusaidia wakati wa kujifungua huyu mtoto?	1. Mtoa huduma wa afya 2. Mkunga wa jadi 3. Mwanamke mwenzangu 4. Mwingine (Mtaje).....
Qn 13	Je nani alikuwa anakusaidia wewe na mtoto wako nyumbani baada ya kujifungua?	1. Mama/mama mkwe 2. Mwenza 3. Mwanamke mwenzangu/rafiki 4. Hakuna aliyemsaidia 5. Mwingine (mtaje).....
KIPENGELE CHA 3: UTEKELEZAJI WA UNYONYESHAJI WA MTOTO		
Qn 14.	Baada ya kujifungua ulichukua muda gani kuanza kumnyonyesha mtoto?	1. Ndani ya saa moja 2. Masaa 2- 4 3. Sikumbuki 4. Mengine(Taja)……..... (Kama jibu sio namba 1 nenda swali la 15, kama ni namba 1 nenda swali la 16)

Qn 15.	Kama mama alichukua muda wa zaidi ya saa moja kuanza kumnyonyesha mtoto muulize kwanini?	1. Maziwa yalichelewa kutoka 2. Mama alikuwa mgonjwa 3. Mtoto alikuwa mgonjwa 4. Nyingine (Taja).....
Qn 16.	Baada tu ya mtoto kuzaliwa alipewa kitu kingine kabla ya kuwekwa kwenye titi?	1. Ndiyo 2. Hapana (Kama jibu ni ndiyo nenda swali la 17, 18 & 19, na kama jibu ni hapana nenda swali la 20)
Qn 17.	Kama ndiyo, je alipewa kitu gani?	1. Maji 2. Maji yenye glucose 3. Dawa ya kienyeji 4. Maziwa ya ng'ombe 5. Uji mwepesi 6. Kingine (kitaje)……..
Qn 18.	Kama ndiyo, nani alikushauri umpatie mtoto hicho kabla ya kuanza kumnyonyesha?	1. Mtoa huduma ya afya 2. Mganga wa kienyeji 3. Mama/mama mkwe(Wabibi) 4. Wanawake wenzake (Marafiki) 5. Mkunga wa jadi 6. Aliamua mwenyewe 7. Mwingine (Mtaje)……
Qn 19.	Je nini sababu ya kumpatia mtoto kitu hicho kabla ya kuanza kunyonyeshwa?	1. Kinga 2. Lishe 3. Mila na desturi 4. Sifahamu 5. Nyingine (Taja).....
Qn 20.	Je huyu mtoto ulimnyonyesha maziwa ya kwanza yenye rangi ya njano (Ng'anda)?	1. Ndiyo 2. Hapana (Kama ndiyo nenda swali la 23, kama hapana nenda swali la 21)

Qn 21.	Kama hapana nini sababu ya kutompa maziwa ya kwanza yenye rangi ya njano?	1. Ni machafu 2. Yanaweza kumdhuru mtoto 3. Sifahamu 4. Nyingine (Taja).....
Qn 22.	Nani alikushauri usimpe mtoto maziwa hayo ya kwanza ya njano?	1. Mtoa huduma ya afya 2. Mganga wa kienyeji 3. Mama/mama mkwe (Bibi wa mtoto) 4. Wanawake wenzangu (Marafiki) 5. Mkunga wa jadi 6. Aliamua mwenyewe 7. Mwingine(Mtaje)……
Qn 23.	Mtoto alikuwa na miezi mingapi ulipomwanzishia vyakula/vinywaji vingine vya nyongeza ya maziwa ya mama? (Mda wa kunyonyesha maziwa ya mama pekee)	1. Chini ya miezi 2 2. Kati ya miezi 2- 3 3. Kati ya miezi 4-5 4. Alipofikisha miezi 6 5. Baada ya miezi 6 (kama jibu ni alipofikisha miezi 6 nenda swali la 26, kama ni la namba 1,2,3,au 5 nenda swali la 24)
Qn 24.	Kama alikuwa hajafikisha miezi 6 ni sababu zipi zilikupelekea kumwanzishia vyakula vingine?	1. Mtoto alikuwa analia sana 2. Maziwa ya mama yalikuwa hayamtoshelezi 3. Mtoto alikuwa mgonjwa 4. Mama alikuwa mgonjwa 5. Alianza kazi 6. Aliona mtoto amekua kuweza kuanza kula chakula 7. Nyingine(Itaje)……..
Qn 25.	Nani alikushauri kumwanzishia vyakula vingine mtoto kabla ya kutimiza miezi 6?	1. Aliamua mwenyewe 2. Mama/mama mkwe (Bibi) 3. Mwenza 4. Mganga wa kienyeji 5. Mkunga wa jadi 6. Mtoa huduma ya afya 7. Mwingine (Mtaje).....

Qn 26.	Ulipokuwa unamnyonyesha mtoto chini ya miezi 6 , ilikuwa inakuchukua mda gani kumwamishia mtoto kwenye titi jingine?	1. Nilipohisi titi la pili limejaa sana maziwa 2. Mpaka titi la kwanza liishe maziwa kabisa 3. Ilitokea tu bila kujali/kupanga 4. Sifahamu 5. Nyingine (Taja).....
Qn 27.	Mtoto alipokuwa na umri wa chini ya miezi sita ulimnyonyesha mara ngapi kwa siku?	1. Mara 2 au chini ya hapo kwa siku 2. Kati ya mara 3-6 3. Kila alipohitaji 4. Sifahamu 5. Nyingine (Taja).....
KIPENGELE CHA 4: UELEWA WA MAMA JUU YA UNYONYESHAJI WA MAZIWA YA MAMA PEKEE		
Qn 28.	Kunyonyesha maziwa ya mama kuna faida gani?	1. Lishe 2. Humkinga motto dhidi ya maradhi 3. Huzuia mama kupata ujauzito 4. Hayana garama 5. Nyingine (Taja)…….. Akitaja vipengele : 3 au zaidi = Anauwelewa mkubwa 2 = Anauwelewa mdogo Chini ya vipengele 2 = Hana uwelewa
Qn 29.	Je inashauriwa mama aanze kumweka mtoto kwenye titi mda gani baada ya kujifungua?	1. Ndani ya saa moja 2. Baada ya masaa 2-4 3. Baada ya masaa matano (5) 4. Sifahamu 5. Nyingine (Taja).....

Qn 30.	Je inashauriwa mtoto apewe kitu kabla ya kuanza kunyonyeshwa maziwa ya mama mara baada ya kuzaliwa?	1. Ndiyo 2. Hapana Kama jibu ni "Ndiyo" nenda swalila 31, na kama jibu ni "Hapana" nenda swali la 32
Qn 31.	Kama ndiyo. Je anashauriwa apewe kitu gani kabla ya kuwekwa kwenye titi baada ya kuzaliwa?	1. Maji 2. Maji ya glucose 3. Dawa ya kienyeji 4. Nyingine (Taja)……..
Qn 32.	Unafikiri ni vitu gani vinaweza kumsaidia mama kuongeza utokaji wa maziwa?	1. Kunyonyesha mara kwa mara 2. Kuhakikisha matiti yanakua hayana maziwa mda wote 3. Kumweka mtoto vizuri kwenye titi 4. Msaada (support) wa familia, marafiki au mtoa huduma ya afya 5. Hakiwa hana msongo wa mawazo Akitaja vipengele : 3 au zaidi = Anauwelewa mkubwa 2 = Anauwelewa mdogo Chini ya vipengele 2 = Hana uwelewa
Qn 33.	Je inashauriwa mtoto anyonyeshwe maziwa ya mama pekee bila hata maji kwa mda gani?	1. Chini ya miezi 6 2. Kati ya miezi 2- 3 3. Kati ya miezi 4-5 4. Atakapotimiza umri wa miezi 6 5. Zaidi ya miezi 6 6. Sifahamu Kama ni chini ya miezi 6 nenda swali la 34

Qn 34.	Ni vyakula /vinywaji gani anashauriwa mtoto wa chini ya miezi 6 apewe kama nyonza ya maziwa ya mama?	1. Maziwa ya ng'ombe 2. Uji wa mahindi 3. Iji wa Lishe 4. Ugali laini 5. Nyama ya kusaga 6. Viazi 7. Uji wa muhogo 8. Ndizi za kusaga 9. Kingine (Taja).....
Qn 35.	Je mtoto mwenye umri wa chini ya miezi 6 anashauriwa anyonyweshe maziwa ya mama mara ngapi kwa siku?	1. Mara 2 au chini ya hapo kwa siku 2. Kati ya mara 3-6 3. Kila anapohitaji 4. Sifahamu 5. Nyingine (Taja).....
Qn 36.	Ni kwanini mtoto anashauriwa anyonyweshwe maziwa ya mama tu bila kupewa chakula/kinywaji chochote hata maji kwa miezi 6 ya kwanza?	1. Maziwa ya mama humpatia viinilishe vyote anavyohitaji kwa miezi 6. 2. Utumbo wake unakuwa hauwezi kumeng'enya chakula kingine isipokuwa maziwa ya mama. 3. Ili aweze kupata kinga yote iliyo kwenye maziwa ya mama 4. Nyingine (Taja)..... Akitaja vipengele : 3 au zaidi = Anauwelewa mkubwa 2 = Anauwelewa mdogo Chini ya vipengele 2 = Hana uwelewa

Qn 37.	Je ni dalili zipi zinaashiria kwamba mtoto amepakatwa vizuri wakati wa kunyonyeshwa?	1. Kichwa cha mtoto na mwili wake viko kwenye mstali ulionyooka 2. Uso wake unaangalia titi la mama na pua yake iko mkabala na chuchu 3. Mwili wa mtoto umesogezwa karibu na mwili wa mama 4. Iwapo ni mtoto mchanga mama atakuwa kashikilia makalio ya mtoto na siyo mabega 5. Nyingine (Taja)..... Akitaja vipengele : 3 au zaidi = Anauwelewa mkubwa 2 = Anauwelewa mdogo Chini ya vipengele 2 = Hana uwelewa
Qn 38	Je ni dalili zipi zinaashiria kwamba mtoto amewekwa vizuri kwenye titi wakati wa kunyonyeshwa?	1. Sehemu kubwa ya eneo nyeusi inayozunguka chuchu itakuwa imeingia kinywani mwa mtoto 2. Mtoto atakuwa amefunua kinywa ipasavyo 3. Mdomo wa chini umebinuka nje 4. Kidevu cha mtoto kinagusa titi 5. Nyingine (Taja)..... Akitaja vipengele : 3 au zaidi = Anauwelewa mkubwa 2 = Anauwelewa mdogo Chini ya vipengele 2 = Hana uwelewa
Qn 39	Je unaweza nielezea jinsi ya kukamua maziwa ya mama?	....

Qn 40.	Kwa mtazamo wako, ni vitu gani vinachangia kumwezesha mama aweze kumnyonyesha mtoto maziwa yake pekee kwa miezi sita ya mwanzo?	1. Taarifa sahihi juu ya kunyonyesha maziwa ya mama pekee 2. Msaada/Support ya familia 3. Msaada /Support ya mwenza 4. Msaada/Support ya mama/mama mkwe 5. Afya nzuri kwa mama 6. Afya nzuri ya mtoto 7. Nyingine (Taja).....
Qn 41.	Kwa mtazamo wako, ni vikwazo gani mama anakutana navyo, vinavyo changia asiweze kumnyonyesha mtoto maziwa yake pekee kwa miezi sita ya mwanzo?	1. Kutokuwa na taarifa/elimu sahihi ya unyonyeshaji maziwa ya mama pekee. 2. Mila na desturi potofu 3. Ushawishi wa Mama/mama mkwe 4. Ushawishi wa mwenza 5. Muda mfupi wa likizo ya uzazi 6. Nyingine (Taja).....

Appendix 3: In-depth interview guide (English version)

ASSESSMENT OF PREDICTORS OF EXCLUSIVE BREASTFEEDING AMONG WOMEN WITH CHILDREN AGED 6 TO 12 MONTHS IN MKURANGA DISTICT.

Identification of the area

Division.....

Ward…….....…

Village…….....

Date of interview…….....…

Name of inter viewer.....

Age of a grandmother.....

Period nursing their grandchild (Months).....

1. Please tell me how infant and young child feeding is done in your community.
    - Prelacteal feeding
    - Colostrum
    - Exclusive breastfeeding duration
    - Complementation
    - Stop breastfeeding
2. What support are delivering mothers given in order to breastfeeding their babies after derivery?
    - Things done to increase flow of breast milk
    - Types of support provided
    - Who support
    - Expressing breastmilk

- Breastfeeding as a child demand
- Empting one breast before shifting to another breast

3. What are your roles in breastfeeding promotion in your community?

Appendix 4: In-depth interview guide (Kiswahili version)

DODOSO LA UTAFITI KUHUSU VIGEZO VINAVYOSAIDIA KUWAWEZESHA KINAMAMA KUWANYONYESHA WATOTO MAZIWA YA MAMA PEKEE KWA MIEZI 6 YA MWANZO KATIKA WILAYA YA MKURANGA.

Utambulisho wa eneo

Tarafa.....

Kata…….....….....…

Kijiji…….....….

Tarehe ya usahili…….....….....…

Jina la msahili.....

Umri wa bibi.....

Mda aliyotumia kumuhudumia mama na mtoto (Miezi).....

1. Naomba unieleza jinsi ulishaji wa watoto wachanga na wadogo unavyofanyika katika jamii yeni?
    - Vitu anavyopewa mtoto kabla ya kuanza kunyonyeshwa
    - Maziwa ya kwanza ya njano
    - Muda wa kunyonyeshaji wa maziwa ya mama pekee
    - Mda wa kumuanzishia mtoto vyakuala vya nyongeza
    - Kuachisha mtoto kunyonya
2. Ni msaada gani mama aliyejifungua anapewa ili aweze kumnyonyesha mwanae baada ya kujifungua?
    - Vitu vinavyofanyika ilikuongeza utokajia wa maziwa ya mama
    - Aina ya msaada mama anaopatiwa

- Nani anampa msaada huo
- Jinsi ya kukamua maziwa
- Kumnyonyesha motto kila anapoitaji
- Kunyonyesha titi moja mpaka liishiwe maziwa ndipo umwamishie kwenye titi jingine

3. Unafikiri wewe unajukumu gani katika kuhamasisha unyonyeshaji katika jamii?

Appendix 5: Informed consent form (English version)

DIRECTORATE OF RESEARCH AND PUBLICATIONS, MUHAS

INFORMED CONSENT FORM

ID-NO. ☐☐

Invitation

Greetings,

My name is ……,I am from School of Public Health and Social Sciences at Muhimbili University of Health and Allied Sciences in Dar es Salaam. You are being invited to take part in a research, which tries to assess the predictors of exclusive breastfeeding among mother with children aged 6 – 12 months in Mkuranga district, Tanzania. Your participation in this study is voluntary and therefore you can withdraw from the research anytime without any consequences. Your response will also be kept confidential and anonymous.

Purpose of the Study

Dear respondent I would like to inform you that this is a research study titled "Predictors of exclusive breastfeeding among women with children aged 6 to 12 months in Mkuranga Distict ". I would like to give you information about your participation in the study.

This study is aimed at exploring Predictors of exclusive breastfeeding among women with children aged 6 to 12 months in the community. Kindly be honest and true for

betterment of the results that could lead to better intervention and recommendations in future.

Confidentiality

You have been selected as a study respondent to share with us your practice in respect to breastfeeding practices. Your response will be kept confidential and anonymous.

Right and withdrawal alternatives

Your participation is voluntary. You may decline from participation to the study at anytime during interview even if you have consented to participate. There is no punishment for refusing to participate on the study. You will not experience any loss if you refuse to participate in this study.

Benefits

The information you provide will help to increase our understanding and give a clear picture on predictors of exclusive breastfeeding among women with children aged 6 to 12 months in Mkuranga Distict, Tanzania. This can therefore help in providing useful information and contribute to future health care policy formulation and strategic planning.

Damage

It is not expected that there will be any damage for your participation as the respondent to this study.

Risks

There is no harm for participating in the study. However, you are free to stop participation at any time during this discussion in the event you feel uncomfortable.

Who to Contact

If you ever have questions about this study, you should contact the Principal Investigator, Doris Katana (+255 754 299252) of Muhimbili University of Health and Allied Sciences, P. O. Box 65001, Dar es Salaam.

If you ever have questions which need further clarification, as a participant you have a right to call Prof. M. Moshi, Chairman(Research and Publications Committee, MUHAS. P.O.Box 65001, Dar es Salaam – Tanzania, Tel +2552150302-6); and Dr. A.T Kessy, from Muhimbili University of Health and Allied Sciences , P.O.BOX 65001 Dar es Salaam, who is the supervisor of this study.

Signature:

Do you agree?

Participant agrees …….. Participant does NOT agree …….....……

I …….have read the contents in this form. My questions have been answered. I agree to participate in this study.

Signature of participant ……

Signature of Research Assistant ……..

Date of signed consent ……

DECLARATION

The above document describing the benefits, risks, and procedures for the research titled " Predictors of exclusive breastfeeding among women with children aged 6 to 12 months in Mkuranga Distict" has been read and explained to me and I have agreed to participate. I certify that the nature and purpose, the potential benefits and possible risks associated with participating in this study have been explained to me.

Signature or Right Thumb stamp of the respondent.....DATE.....

Signature of Research Assistant.....…….DATE.....

Appendix 6: Informed consent form (Kiswahili version)

CHUO KIKUU CHA SAYANSI ZA AFYA MUHIMBILI

MKURUGENZI YA TAFITI NA UCHAPISHAJI

FOMU YA RIDHAA

Namba ya utambulisho ☐☐

Ridhaa ya kushiriki kwenye utafiti

Hujambo,

Mini jina langu ni ……, nimetokea kwenye chuo kikuu cha Afya na Sayansi za tiba Muhimbili. Ninakusanya takwimu kwa ajiri ya utafiti wenye lengo la kutathmini ufahamu, uelewa na mtazamo wa jamii katika suala zima la unyonyeshaji maziwa ya mama pekee kwa miezi sita ya mwanzo kwa wanawake wenye watoto kati ya miezi 6-12 kataka wilaya ya Mkuranga.

Madhumuni ya Utafiti

Utafiti huu unafanyika katika kutimiza sehemu ya matakwa ya shahada ya uzamili ya sera ya afya na usimamizi ya Chuo Kikuu cha Afya na Sayansi ya Tiba Muhimbili. Utafiti unalenga kuchunguza viashiria vinavyo mwezesha mama kunyonyesha maziwa yake peke kwa miezi sita ya mwanzo. Unaombwa kushiriki katika utafiti huu kutokana na upeo na ufahamu ulio nao ambavyo ni muhimu kwa utafiti huu. Tafadhali kuwa mkweli na muwazi kwa vile matokeo ya utafiti huu yanaweza yakatoa maamuzi na mapendekezo ya baadaye.

Nini kinahitajika ili kushiriki

Ukikubali kushiriki katika utafiti huu, utasailiwa ili kuweza kujibu maswali toka kwenye dodoso lililoandaliwa kwa ajili ya utafiti huu.

Usiri

Taarifa zote zitakazokusanywa kupitia dodoso zitaingizwa kwenye ngamizi kwa kutumia namba za utambulisho.Kutakuwa na usiri na hakuna mtu yeyote asiyehusika atakayepata taarifa zilizokusanywa.

Haki ya kujitoa au vinginevyo

Ushiriki katika utafiti huu ni wa hiari. Unaweza kuacha kushiriki katika utafiti huu muda wowote hata kama ulikwishatoa idhini yako. Kukataa kushiriki au kujitoa kutoka kwenye utafiti hakutahusisha adhabu yoyote.

Faida

Kama utakubali kushiriki kwenye utafiti huu taarifa utakazotoa zitatuwezesha kutupa mwanga zaidi juu ya mtazamo za jamii katika suala zima la unyonyeshaji maziwa ya mama pekee kwa miezi sita ya mwanzo kwa wanawake wenye watoto kati ya miezi 6-12 katika jamii. Matokeo ya utafiti huu yanaweza kutoa taarifa ambazo zinaweza kusaidi katika kuboresha sera ya huduma ya afya na mipango.

Madhara

Hutegemewi kupata madhara yoyote kutokana na ushiriki wako katika utafiti huu.

Nani wa kuwasiliana naye

Kama una maswali kuhusiana na utafiti huu, wasiliana na Mtafiti mkuu wa utafiti huu, **Doris Katana (Tell. +255 754 299252)** wa Chuo Kikuu cha Afya na Sayansi ya Tiba Muhimbili, S. L. P. 65001, Dar es Salaam.

Kama una swali kuhusu stahili zako kama mshiriki unaweza kumpigia simukwa **Mwenyekiti wa Kamatiya Utafiti na machapisho Prof. M. Moshi S.L.P. 65001, Dar –es Salaam. (Simu: 2150302-6)** au msimamizi wa utafiti huu **Dr. A.T Kessy** wa Chuo Kikuu cha Afya na Sayansi ya Tiba Muhimbili, S.L.P 65001, Dar es Salaam.

Sahihi: .....

Je umekubali?

Mshiriki amekubali ……..... Mshiriki hajakubali …….....

Mimi ..... nimesoma maelezo ya fomu hii.

Maswali yangu yamejibiwa.Nakubali kushiriki katika utafiti huu.

Sahihi ya mshiriki……

Sahihi ya mtafiti msaidizi……

Tarehe ya kutia sahihi ya idhini ya kushiriki……..