

**FACTORS INFLUENCING BREASTFEEDING PRACTICES AMONG MOTHERS
ATTENDING HEALTH FACILITIES IN BUSHENYI DISTRICT- WESTERN UGANDA.**

SUBMITTED

BY

Habiba Shehu

(BMS/0100/133/DF.)

**A RESEARCH REPORT SUBMITTED TO THE FACULTY OF CLINICAL MEDICINE
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OCTOBER, 20

DECLARATION

I.....declare that I am the sole author of this work and it has never at any time been submitted for the award of a degree of any other qualification in any university. Any material which is not my original work has been clearly referenced.

Sign.....

Date.....

APPROVAL

This work has been submitted to university examiners with my approval as university supervisor.

.....

Mr. Solomon A. Mbina

(B.Sc Biochem (ABU), PGDE(ADU), M.Sc. Pub. Health (CUU))

Department of public health

School of Allied Health Sciences

Kampala International University-Western Campus

DEDICATION

I dedicate this work to my parents and all my family and friends who have supported me morally, financially and spiritually to produce this piece of work.

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I am deeply grateful to my supervisor Mr. Solomon A Mbinna for his supervision and advice at every stage of this thesis .The time spent reviewing the draft and supervision meetings.

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LIST OF ACRONYMS

ANC	Antenatal Care
BFHI	Baby Friendly Hospital initiative
CDC	Centers for Disease Control and Prevention
EBF	Exclusive Breastfeeding
FANTA	Food And Nutrition Technical Assistance
HC III	Health Center III
HC IV	Health Center IV
HIV	Human Immunodeficiency Syndrome
ILO	International Labour Organization
IYCF	Infant And Young Child Feeding
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries/
MOH	Ministry of Health
NBS	National Bureau of Statistics
NFA	National Forestry Authority
OALD	Overactive Let-Down
PMTCT	Prevention of mother to child transmission of HIV

PPD	Postpartum depression
SPSS	Statistical Package for Social Sciences
TDHS	Tanzania demographic and health surveys
UBOS	Uganda Bureau of Statistics
UIC	Uganda Insurance Commission
UN	United Nations
UNICEF	United Nations Children Fund
USAID	United States Agency for International Development
WHO	World Health Organization

OPERATIONAL DEFINITIONS

Abscess – area in the breast that feels hot and painful, and is full of fluid. It result from untreated mastitis

Attitude: is a tendency to respond negatively or positively towards a certain idea, object, person or situation. It influences an individual's choice of action and responses to challenges, incentives and rewards

Blocked duct – milk from one part of the breast does not flow well and forms a lump of thickened milk that blocks the milk duct.

Breastfeeding: is the receiving breast milk either direct from the breast or expressed. It may include exclusive, predominant or partial breastfeeding

Cleft lip: Birth defects that occur when a baby's lip or mouth do not form properly during pregnancy.

Cleft Palate: A congenital split in the roof of the mouth. This disorder can result in feeding problems.

Cerebral Palsy: is a disorder of movement, muscle tone or posture that is caused by damage that occurs to the immature, developing brain most often before birth.

Complementary feeding: Is a process starting when breast milk alone is no longer sufficient to meet the requirements of infants, and therefore other foods and liquids are needed along with breast milk.

Engorgement: swelling in the breast that blocks milk flow, caused by inadequate or infrequent milk removal.

Exclusive breastfeeding: is the act of giving a baby breast milk only either expressed or from mothers' breast, without addition of any other foods even water for six months continuously, with the exception of Vitamin supplements or medicine or syrups when need arises (WHO, 2008).

Knowledge: is information acquired by a person through experience or education. It is awareness or recognition gained by experience of a fact or situation.

Maternal morbidity: Any health condition attributed to and/or aggravated by pregnancy and childbirth that has a negative impact on the woman's wellbeing

Mastitis: infection in the breast that produces localized tenderness

Mixed feeding: Breast-fed infants who are also given solid foods or milk from formula

Prevalence: the proportion of a population found to have a condition (typically a disease or a risk factor). It is arrived at by comparing the number of people found to have the condition with the total number of people studied, and is usually expressed as a fraction, as a percentage or as the number of cases.

Sore nipples – breastfeeding is hurting or the nipples are cracked. The mother may have a fever, feel tired or have nausea and headache.

Infant — a person from birth to 12 months of age. In this study children aged 0-6 months were considered as infants.

Breastfeeding on demand — Breastfeeding an infant whenever and as long as the infant wants to breastfeed

TABLE OF CONTENTS

DECLARATION	i
APPROVAL	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
LIST OF ACRONYMS	v
OPERATIONAL DEFINITIONS.....	v
ABSTRACT.....	xi
CHAPTER ONE	1
INTRODUCTION	1
1.0 Introduction.....	1
1.2 Statement of the problem	3
1.3 General objective	3
1.4 Specific Objectives	3
1.4 Research questions.....	4
1.6 Study Scope	4
1.7 Significance of the study.....	5
1.8 Conceptual Framework.....	5
CHAPTER TWO	7
LITERATURE REVIEW	7
2.0 Introduction.....	7
CHAPTER THREE	12
METHODOLOGY	12
3.0 Introduction.....	12
3.1 Research Design.....	12
3.2 Study population	12
3.3 Sample size and sampling technique	12
3.4 Data collection methods.....	13
3.5 Data collection instruments.....	14
3.7 Selection criteria of participants	14
3.8 Quality control	14
3.9 Validity and Reliability of Research instrument.....	15
3.10 Data process and analysis	15

3.11 Ethical considerations	15
CHAPTER FOUR.....	16
RESULTS	16
4.0 Introduction.....	16
Table 4.1: Socio-demographic characteristics of the lactating mothers (Respondents)	16
Table 4.2 Breastfeeding practices	17
4.3: Maternal factors of the mothers	19
4.4: Cross tabulation analysis on the relationship between maternal factors and breastfeeding practices among the lactating mothers.	21
4.5: Multivariate analysis of the logistic regression results for the relationship between maternal factors and exclusive breastfeeding practice among the lactating mothers.	22
Table 4.6: Child factors associated with EBF.....	24
Table 4.7 Cross tabulation analysis on the relationship between Child's factors and breastfeeding practice (EBF) among the lactating mothers.	24
CHAPTER FIVE	26
DISCUSSIONS.....	26
5.0 Introduction.....	26
5.1 The prevalence of breastfeeding practices among lactating mothers attending Bushenyi district health facilities.	26
5.2 The maternal factors influencing exclusive breastfeeding among lactating mothers attending Bushenyi district health facilities.....	27
5.3 Child's factors influencing exclusive breastfeeding among lactating mothers in Bushenyi District.....	28
CHAPTER SIX.....	29
CONCLUSION AND RECOMMENDATIONS	29
6.0 Introduction.....	29
6.1 Conclusion	29
6.2 Recommendations.....	30
REFERENCES	31
APPENDIX 2.....	41
CONSENT FORM.....	41
QUESTIONNAIRE	42
FGD GUIDE	46
BUDGET	48

ABSTRACT

Background: Exclusive breastfeeding is recommended as the best feeding approach for new born infants due to its enormous benefits to the mother and child. The World Health Organization (WHO) and United Nations Children Fund (UNICEF) recommendation for optimal infant feeding are exclusive breastfeeding for the first six months after which complementary foods should be introduced with continuation of breastfeeding until two years or beyond.

Objectives: This study assessed the prevalence of breastfeeding practices, maternal and child factors influencing exclusive breastfeeding among lactating mothers attending Bushenyi district health facilities in Western Uganda. The study population was drawn from lactating mothers attending health facilities in Bushenyi district.

Methods: A descriptive cross-sectional study design which employed both quantitative and qualitative methods in data collection was used for this study. Simple random sampling technique was used to sample the health facilities and respondents (lactating mothers) at each facility. 201 lactating mothers of children of age 0- 24 months participated in this study. Data from the survey was statistically analyzed using the Statistical Package for Social Sciences (SPSS) (version 12.0).

Results: The study showed that initiation of breastfeeding after birth was done within the first hour of birth by most of the mothers 126 (62.7%), and the prevalence of EBF was 34.3%. The mothers who rated their milk production for the child as average (AOR=2.35), mothers whose meal frequency during the first six months was three(AOR=1.12), mothers who rated their appetite during the first six months(OAR=2.11), mothers who had a History of EBF with their other children, mothers who denied that attention of the other child/children affected the present child breastfeeding, mothers who delivered in a health facility(AOR=3.35) and more had the higher likelihood of practicing EBF. Child's gender, birth weight and appetite significantly influenced the exclusive breastfeeding practices of lactating mothers in Bushenyi District.

Conclusion: The rate of exclusive breastfeeding among lactating mothers in Bushenyi district is low. Hence breastfeeding counseling during antenatal care should be centered on solving problems associated with breastfeeding.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Uganda is challenged by the double burden of malnutrition, both under nutrition (stunting, underweight, and wasting and micronutrient deficiencies) and over nutrition (overweight /obesity). (UDHS, 2011). Malnutrition is high among children under age 5. 33% are stunted, 4.8% are wasted, 16% are underweight, 49% are anaemic, 38% are Vitamin A Deficient, 10.2 % are born with low birth weight, 3% are obese/overweight (UDHS, 2011). Vulnerability to stunting varies from region to region; stunting is much higher in rural areas with 18.65 stunted in the urban areas compared to the 35.6% stunted in the rural areas.

The number of stunted children in South-Western Uganda has reached epidemic proportions, according to findings of a health research project (UBOS, 2012), a situation that can be backtracked to early infant feeding practices. In order to reduce or curb this challenge generally, the Uganda Government through the Ministry of Health ensures the implementation of Infant and young child feeding practices (IYCF). The Uganda Food and Nutrition Policy (MAAIF, 2003), promotes the recommended IYCF practices which are also stressed in the National Health Policy. Further guidance on IYCF is given in The Baby Friendly Health Facility Initiative (BFHI) and Health Facility Practices Policy of October 1999, the Integrated Management of Childhood Illness (IMCI) Feeding Guidelines, the Vitamin A Supplementation Guidelines. The ministry of health Acts as the principal implementer and coordinator of all the interventions aimed at achieving the goal and objectives of this policy (MOH, 2007).

Background

Breast milk contains all the nutrients required by infants in the first 6 months of life for good health and development. It also contains bioactive factors that augment the infant's immature immune system, providing protection against infection, and other factors that help digestion and absorption of nutrients. Breastfeeding therefore, is an important public health strategy for reducing maternal, infant and child morbidity and mortality (Jones, 2013; Kramer, 2012). The normal way of providing young infants with nutrients they need for healthy growth and development is through breastfeeding and virtually all mothers can breastfeed, provided they have accurate information, and the support of their family, the health care system and society.

Studies have shown that, good breastfeeding practices especially EBF could prevent about 11.6 % of the 6.9 million under five deaths in developing countries (Black, R. E., Victora, C. G et al, 2013; WHO and UNICEF. (2013)).

The World Health Organization (WHO) therefore recommends optimal breastfeeding which includes immediate initiation of breastfeeding, exclusive breastfeeding for six months and continued breastfeeding for at least two years with optimal complementary feeding from six months (WHO; 2003; UNICEF, 2013).

Recent evidence indicates that breastfeeding could save over eight hundred thousand children's lives and about two hundred mothers' lives annually (Victoria C.G, et al, 2016). Despite the benefits and efforts to promote breastfeeding, EBF is sub optimally practiced in many developing countries. Only 35 % of the infants are exclusively breastfed worldwide (Cai, X., Wardlaw, T., & Brown, D. W. 2012). In sub Saharan Africa which has high rates of infants and child mortality only 33 % of infants are exclusively breastfed (Cai, X., Wardlaw, T., & Brown, D. W. 2012)

In Uganda, only 42 % of new-borns are breastfed in the first hour of life (Uganda Bureau of Statistics and ICF International, 2012), thus, a large proportion of new-borns miss out on the disease-protective benefits of colostrum ("first" milk, of yellowish colour) and only 63% are breastfed up to six months (EPRC, 2012).

In response to the persistent decline in the rate of breast feeding globally, the World Health Organization and UNICEF had launched several programmes like the baby friendly hospital initiative and the International Code of Marketing of Breast Milk substitutes in order to protect, promote and support breastfeeding (Fairbank et al, 2000; UNICEF, 2013).

Several factors such as socioeconomic, socio demographic, cultural and so on have been found to be associated with breastfeeding practices especially EBF, in developed countries (Mgongo, M., Mosha, M. V, et al 2013; Nkala, T. E., & Msuya, S. E. 2011). However, how these factors influence breastfeeding practices especially in Uganda differ from one setting to the other.

1.2 Statement of the problem

The World Health Organization (WHO) has revealed that only about 36 percent of infants worldwide were exclusively breastfed over the period of 2007-2014 (WHO, 2016). It is estimated that over 7 million children under the age of five die each year in sub-Saharan Africa and this has been attributed to poor feeding practices. Exclusive breastfeeding promotion has been identified as one of the interventions with the highest life-saving potential globally, and if all children were optimally breastfed, this could potentially save 13% of child deaths worldwide (Chola et al., 2011). Despite efforts to promote and facilitate effective practice of optimal breastfeeding such as development and operationalization of several national policies and guidelines to provide information and guidance on IYCF, counseling and support available in many health centers there is still a low practice of optimal breastfeeding (UNICEF 2016).

In Uganda, malnutrition remains a serious health problem affecting infants and children contributing significantly to both infant and child mortality and morbidity as only 6 in 10 Ugandan children are exclusively breast fed (UBOS, 2012) and there is an alarming high infant (76 per 1000 live births and child mortality (137 deaths per 1000 live births) in Uganda and this has been attributed to low levels of breast feeding practices (UBOS, 2012). There is also paucity of information on breastfeeding practices in Uganda especially in rural area such as Bushenyi.

This study therefore seeks to establish the factors influencing breastfeeding practices among mothers attending health facilities in Bushenyi district- western Uganda.

1.3 General objective

To assess the factors influencing breastfeeding practices among mothers attending health facilities in Bushenyi district- western Uganda.

1.4 Specific Objectives

- To determine the prevalence of breastfeeding practices among mothers attending health facilities in Bushenyi district.

- To assess the maternal factors influencing exclusive breastfeeding practices among mothers attending health facilities in Bushenyi district.
- To identify the child factors influencing exclusive breastfeeding practices among lactating mothers attending health facilities in Bushenyi district.

1.4 Research questions

- What are the prevalent breastfeeding practices among mothers attending health facilities in Bushenyi district?
- What are the maternal factors influencing exclusive breastfeeding practices among mothers attending health facilities in Bushenyi district?
- What are the children factors influencing exclusive breastfeeding practices among mothers attending health facilities in Bushenyi district?

1.6 Study Scope

1.6.1 Content scope

The study focused on factors influencing breastfeeding practices among mothers attending health facilities in Bushenyi district.

1.6.2 Geographical scope

The study was conducted in Bushenyi district health facilities in Western Uganda. Bushenyi District. The District is made of one(1) County (Igara), twelve (12) sub counties of Bushenyi District, Bitooma, Ibaare, Bushenyi E, Bushenyi C, Kyabugimbi, Bushenyi A, Kyeizooba, and Ruhumuro, together with Central Division, Nyakabirizi Division and Ishaka Division., 1 Municipal Council, 4 Town Boards, 3 Wards, 64 parishes and 565 villages.

Bushenyi district has thirty eight (38) health centers and hospitals. Fourteen (14) of these health facilities are at health center III, IV and hospital levels. Some of these health units are government owned while others are NGO owned and others private.

1.6.3 Time scope

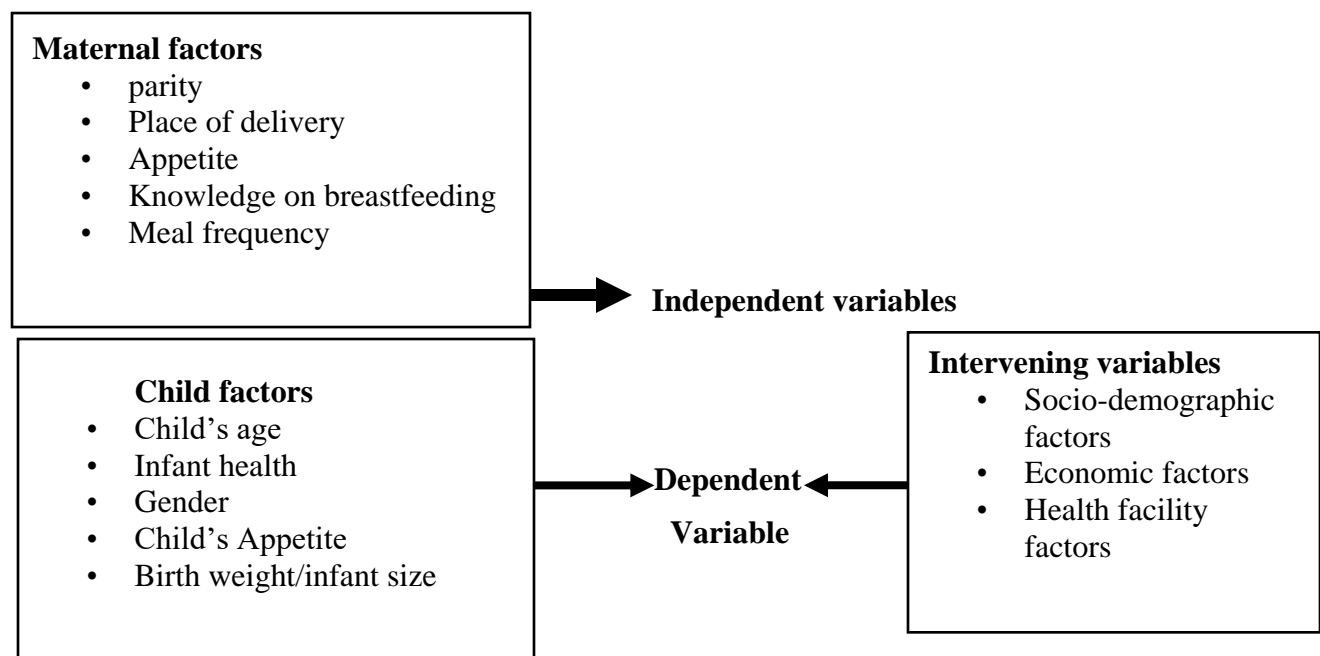
This study was conducted between February, 2018 to October, 2018.

1.7 Significance of the study

The findings of this study is expected to:

- Provide information about the most prevalent breastfeeding practices among mothers' in Bushenyi District.
- The findings of this study will be useful to the government, Ministry of Health and other organizations working in child survival programme to design interventions, appropriate foundation programs to improve and promote the practice of optimal breastfeeding in the area and other regions.
- Inform health policy makers in the formulation of appropriate policies and interventions to promote optimal breastfeeding practices hence improve the child health in Bushenyi district.
- Inform the mothers of the region about their breastfeeding practices hence helping to promote mother and child health.
- Provide useful data for research for further research on breastfeeding practices in the region and the country at large.

1.8 Conceptual Framework



The independent variables are: socio-demographic factors, maternal and child factors while the dependent variable is breastfeeding practices. The framework shows that the three independent variables have influence on breastfeeding. When mother carry out optimal breastfeeding practices, it will lead to remarkable outcomes which includes; reduced infant mortality, reduced maternal morbidity and improved child nutritional status.

Breastfeeding practices

- Initiation
- Exclusive breastfeeding
- Continued breastfeeding up to 2years.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents a review of literature related to the study according to the objectives of the stud;

- **Prevalence of breastfeeding practices among mothers**

Exclusive breastfeeding for infants less than six months old has increased in all but one developing region (UNICEF, 2009d). In the developing world as a whole, progress has been modest, from 33% around 1995 to 37% around 2008 a relative increase of about 16% (UNICEF, 2009a and UNICEF, 2011c) and currently stands at 36% (UNICEF, 2011a). South Asia, East Asia / Pacific and Eastern / Southern Africa are regions with the highest levels of exclusive breast feeding (44%, 43% and 39%) (UNICEF, 2009e and UNICEF, 2011a). The rates of exclusive breastfeeding are particularly low in West and Central Africa (23%), East Asia and Pacific (28%), Central and Eastern Europe/Common wealth of Independent States (CEE/CIS) with 29% (UNICEF, 2011b).

In China, the rates of any breastfeeding since mid-1990s in the majority of the cities and provinces are above 80% at four months but very few reached the national target of exclusive breastfeeding of 80% (Xu et al., 2009). Findings of an infant feeding survey in the UK showed that breastfeeding initiation rates were high at 76%, and at one week 45% were still exclusively breastfeeding but at six months this dropped to less than 1% (Scientific Advisory Committee on Nutrition, 2008).

In an analytical cross-sectional study conducted by Babriye in 2009, in Bushenyi district of South-western Uganda, most (84.5%, 164/194) of the mothers had ever breastfed their infants while

among children less than six months who were breastfeeding, 31.5% (34/108) were exclusively breastfeeding.

In Sudan mortality rates of infants and children younger than five years are high (infant mortality rates 57.9 % per 1000 live births and death rates of children younger than five years is 55.64 % per 1000 live births respectively) while the prevalence of EBF among infants below six months is low (41%) Sudan (11). There has been a major increase in exclusive breast feeding in 19 African countries including Rwanda (88%), Tanzania (41%), Ghana (63%), Benin(70%),Bangladesh (64%), Ethiopia (49%) , and Malawi (57%) among others.(12) (13).Countries with low practice of exclusive breastfeeding rates include Chad (2%), Cote d'Ivoire (4%), Gabon (6%), Kenya (32%), and south Sudan (36%) among others (14).

Studies have identified various factors that influence breastfeeding practices such as inadequate knowledge of the health benefits of breastfeeding (15)(16); inadequate antenatal counseling on breastfeeding (17) and belief that breast milk is insufficient (18).A range of maternal and child health attributes such as marital status, economical status

- **Maternal factors influencing breastfeeding practices among mothers.**

The number of parity has shown to have significant association with optimal breastfeeding practices (Alemayehu et al., 2013). Pressure and support from family and partner to introduce complementary foods and excessive demands on maternal time against other competing responsibilities have been shown to negatively influence the practice of exclusive breastfeeding (Ochola., 2011). Other maternal factors that have shown significant associations with exclusive breastfeeding include knowledge maternal age, mother's health status, experience of breastfeeding and among others. First time mothers are less likely to initiate breastfeeding and continue to breastfeed at 6 months compared to their more experienced counterparts (Ryan et al., 2012). First time mothers also tend to experience more difficulty establishing breastfeeding (Grummer-Strawn, 2008) and are more likely to report discontinuing breastfeeding because. Parity, the mother's experience with birth, has been shown to be an influential factor for breastfeeding initiation and success (Ruowei et al., 2008). Primiparas, first time mothers, have less self confidence in their ability to successfully breastfeed than multiparas, who have experienced child birth and caring for

an infant. Intention to breastfeed has been demonstrated to be a strong predictor of breastfeeding initiation (Ryan et al., 2012). However, there are conflicting findings on the impact of a mother's attitude toward breastfeeding and long term breastfeeding success (Parkinson et al., 2010). Nevertheless, studies have found that women who have positive attitudes toward breastfeeding and a strong determination to breastfeed long term are more likely to overcome difficulties related to working outside of the home and successfully breastfeeding their infants (Rojjanasrirat & Sousa, 2010). The feeding method that family and friends have used seems to influence how each feeding method is perceived by the individual (Rojjanasrirat & Sousa, 2010). Another individual factor is mother's knowledge which influences the practice of optimal breastfeeding. Globally, 60% of the infant and young child deaths occur due to inappropriate infant feeding practices and infectious disease where two-thirds of these deaths are attributable to sub-optimal breastfeeding practices (Tamiru et al., 2013). Poor nutrition is not always only the result of lack of food, but it can be due to lack of knowledge about optimal feeding practices and provision of poor quality of food. Clear-cut programs are needed especially in developing countries to provide a basic service and support for infants and young children to promote optimal breastfeeding (Shikur, 2013). In many developing countries infants and young children are most vulnerable to malnutrition because of lack of knowledge on how to feed a child and infectious diseases. Consequently, large numbers of children are suffering from a wide-range of malnutrition manifested in stunted growth, wasting and micronutrient deficiencies (International Journal of Nutrition and Food Sciences, 2013). Optimal newborn and infant feeding practices are major determinant of short and long-term health outcomes in individuals and social development. Children who are not breastfed properly have repeated infections, grow less and are more likely to die by the age of one month than children who receive at least some breast milk (Kimani-Murage et al., 2011). Many observational studies showed that maternal knowledge of optimal child feeding practices like exclusive breastfeeding for six months, continued partial breastfeeding and the timely transition to adequate complementary food is basic to deliver physiological and economic benefits to mothers and to keep health of a child (Kimani-Murage et al. 2011). The perceived ease of breastfeeding in comparison to formula feeding also differs across different mothers. Some women believe that formula feeding is easier because it is easier to schedule and it eliminates concerns about appropriate infant weight gain (Rojjanasrirat & Sousa, 2010). Some women also report that formula feeding is less embarrassing, more reassuring because one can visually monitor how much

milk an infant is eating, and is easier when someone else has to care for the baby (Moore & Coty, 2006). Other women believe that breastfeeding is easier, more satisfying for child and mother, healthier, more natural, more economic, and more convenient (Moore & Coty, 2006); but that expressing milk for feeding in the mother's absence was more complicated than formula feeding (Holmes et al., 2009). Breastfeeding is nearly universal, but however, large numbers of mothers, both urban and rural areas globally, do not practice appropriate breastfeeding and complementary feeding behavior (International Journal of Nutrition and Food Sciences 2013). In Sub-Saharan African countries, under-five deaths is highly associated with abrupt cessation of breastfeeding and infectious diseases, but it is closely linked to gap of knowledge on how to feed the infant (Tamiru et al., 2013). A recent report showed that mothers early provide water, butter and various types of food to feed their children, thereby reducing the percentage of exclusively breastfeed and increasing the percentage of receiving complementary food at very young age (Mihreshahi et al., 2012). Another factor that influences perceptions of breastfeeding is concerns about mothers own health, stress levels, diet, etc. and how these variables can impact the health of their baby if they were breastfeeding as a woman's situation is a primary determinant of successful long term breastfeeding. A mother's occupation can hinder her ability to use a breast pump at work and make it more difficult to continue breastfeeding long term (Rojjanasrirat & Sousa, 2010). A woman who works part-time is more likely to breastfeed than a woman who works full-time although they both use most of their timing in trying to get ends meet (Salami et al., 2012). Working mothers are just as likely to initiate breastfeeding, but have a lower rate of exclusive long-term breastfeeding (Johnson & Esposito, 2010).

There are many issues that disrupt mother's breastfeeding plan at work. Commonly cited issues are lack of workplace breastfeeding facilities, lack of family support, mother's inadequate knowledge about breastfeeding and feeling of embarrassment (Brown, 2014; Woods, 2013). Working mothers often face inflexibility in the working hours, unable to find facility for childcare at or near the workplace, lack privacy for breastfeeding, place to store breast milk (refrigerator), limited paid maternity leave and fear over job insecurity (Rivera, 2014; Bai, 2014; Allen, 2014; Armstrong, 2002; Lawrence, 2011; Domenico, 2013; Ogido, 2014). Some studies in Nigeria have shown that mothers who delivered in a health institution designated as baby friendly are more likely to practice exclusive breastfeeding (EBF) and breastfeed their infants for a longer time (Aidam BA. et al 2005, Ogunlesi TA. et al, 2005).

- **Child factors influencing breastfeeding among mothers.**

Several studies have documented the impact of cultural factors, maternal age, marital status, family income/social class, mode of delivery, time of initiation of first breastfeeding and proximity to babies on feeding pattern. Outside maternal factors, studies have also shown that the babies' general behaviour influence what feed they receive (Karacam Z. 2008). Low birth weight infants are less likely to exclusively breastfeed (Matias, Nommsen-Rivers et al 2012; Butte Lopez-alatcon et al, 2002) and may be associated with the belief that breast milk substitute is required to make up the low weight (Matias, Nommsen-Rivers,2012).

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter comprised of a description of the study design, study population, sampling techniques, the instrument or tools used for data collection, data collection methods and procedures, data process and analysis and the ethical considerations.

3.1 Research Design

The research design was cross-sectional and descriptive using quantitative and qualitative approaches.

3.2 Study population

The study population included breastfeeding mothers of children aged 0 to 24 months seeking health services from any of the sampled health facilities in Bushenyi district.

3.3 Sample size and sampling technique

The sample size was determined using the formula Kish Leslie (1965) below:

$$n = z^2 p (1-p) / e^2$$

Where n = Estimated minimum sample size required

P= Proportion of a characteristic in a sample (84.5% [Babriye, 2009])

Z=1.96 (for 95% Confidence Interval)

e = Margin of error set at 5%

$$n = 1.96^2 \times 0.845 (1 - 0.845)$$

$$0.05^2$$

n = 201 mothers

Sampling technique

Simple random sampling technique was used to sample the health facilities and the responding mothers in each of the randomly sampled health facilities. This was done using a lottery where the names of the fourteen health facilities were written on A6 size papers, folded and put in an opaque bag from which seven (7) will be picked. The names of the health facilities contained on the seven pieces of paper picked will be considered the sampled facilities while others in the opaque bag were discarded. Each of the seven sampled health centers and hospital were visited on different days consecutively for four weeks. Mothers of children aged 0 - 24 months attending Maternal and Child Health (MCH) clinics in each of the sampled health centers and hospital willing to participate were also sampled randomly.

3.4 Data collection methods

Quantitative data was collected using structured interview while the qualitative data was collected using focus group discussions (FGDs) guide. The researcher and assistants administered the questionnaire to the respondents by reading the question in the local language for them to understand and give the right response. Three focus group discussions (FGDs) were conducted on separate days with 5 participants in each group at two of the sampled health facilities. Using a FGDs guide, the participants gave their opinions and answers on probes about breastfeeding practices.

3.5 Data collection instruments

Quantitative data collection was conducted using a closed or structured questionnaire to obtain all of the required information. The questionnaires were developed in English.

Qualitative data collection was conducted using open ended FGD guide.

3.7 Selection criteria of participants

Inclusion criteria

Inclusion criteria include mothers who have given birth 0 - 6 months prior to the study and lactating and mothers whose children are 6-24months old and consent.

Exclusion criteria

Exclusion criteria include lactating mothers who did not consent, mothers nursing children who are above 24 months of age.

3.8 Quality control

Training of data collection team

The data collection team comprised of four research assistants who are university graduates and can speak the local language well. Two-day training was conducted by the principal researcher.

Pre-testing of questionnaires

The principal researcher and the data collection team conducted the pre-testing of the questionnaires over a period of two days in Ishaka Division. The Pre-testing is to impart practical experience to the team in administering questionnaires as well giving the researcher an idea of the population characteristics.

3.9 Validity and Reliability of Research instrument

Data was entered using the Statistical Products and Service Solution (SPSS) data entry module version 12.0 software which has an inbuilt verification ability to check for range and logistical errors.

3.10 Data process and analysis

Quantitative data from the survey will be statistically analyzed using the Statistical Package for Social Sciences (SPSS) (version 12.0). Basic descriptive analysis will be done using frequency distributions. Qualitative data will be sorted, categorized and conceptualized systematically to see the patterns of exclusive breastfeeding. Measures of central tendency were used to give expected summary statistics of variables studied. Descriptive statistics was used to describe a distribution of scores. Findings were presented using frequency distribution tables, charts and graphs. The qualitative data was gathered to answer the research questions and find the themes emerging from the data as well as the meanings attached to those themes.

3.11 Ethical considerations

Letter of introduction was collected from the school and permission was sought and granted by the District health officer (DHO) before undertaking this research. Ethical approval was sought from various research and ethical committee of KIU to ensure that the study adhere to acceptable ethical guidelines.

CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter comprises of results obtained from data collection. The results of the study are presented in order of the stated objectives in tables below.

Table 4.1: Socio-demographic characteristics of the lactating mothers (Respondents)

Variable	Frequency (n=201)	Percentage (%)
Age		
Less than 18	20	10.0
18-25	114	56.7
26-33	54	26.9
34-41	10	5.0
42-49	3	1.5
Marital status		
Married	172	85.6
Single	19	9.5
Separated	7	3.5
Divorced	3	1.5
Level of education		
No formal education	42	20.9
Primary school	106	52.7
Secondary school	39	19.4
Post-secondary education	14	7.0
Occupation		
Employed	26	12.9
Self employed	44	21.9
Peasant	116	57.7
House wife	15	7.5
Area of Residence		
Rural	175	87.06
Urban	26	12.94
Religion		
Catholic	118	58.71
Protestants	70	34.83
Islam	11	5.47
Others	2	0.99

Majority of the mothers 114(56.7%) that participated in this study fell within the age bracket of 18-25 and were married 172(85.6%). Also, most 106(52.7%) of the lactating mothers had attained

primary level of education were peasants 116 (57.7%). Also, majority 175(87.06%) of the respondents were residing in rural areas and were Catholics 118(58.7%).

Table 4.2 Breastfeeding practices

Variable	Category	Frequency(n=201)	Percentage
Initiation of breastfeeding after birth	Less than 1 hour after birth	126	62.6
	1-3 hours after birth	59	29.4
	4-11 hours after birth	9	4.5
	12-23 hours after birth	3	1.5
	24 hours or more after birth.	1	0.5
	Don't know/don't remember	3	1.5
Exclusive breastfeeding			
During the first six months after birth of this baby, baby on fed anything other than breast milk.	Yes	132	65.7
	No	69	34.3
If yes, how old was this baby when you introduced other food substances?		(n=132)	
	1-2months	12	9.09
	3-4months	63	47.73
	5-6 months	57	43.18
If yes, what was fed to your baby in the first 6 months		(n=132)	
	Cow's milk	52	39.39
	Glucose (Sugar) water	16	12.12
	Porridge (Bushera)	57	43.2
	Mashed banana	2	1.51
	Formula milk	5	3.78
Complementary feeding practices			
If you practiced exclusive breastfeeding, what type of food(s) do you regularly give this baby with breast milk?		(n=69)	
	Cow's milk	13	18.84
	Beans	8	11.59
	Porridge (Bushera)	18	26.09
	Mashed banana(matooke)	9	13.04
	Posho (maize flour)	5	7.25
	Mashed poptato	5	7.25
	Meat	5	7.25
	All of the above	6	8.69

Results in table 4.2 above show that majority 126 (62.7%) of the respondents had initiated breastfeeding after birth within the first hour of birth. However, during the first six months after birth of their babies, majority 132 (65.7%) of the mothers had fed their babies with other supplements (food) than breast milk. Most 57(43.2%) of the mothers who introduced other foods to the babies within the first six months, gave them porridge. Most 63(47.73%) of the mothers reported that they introduced other food substances to their babies between the age of 3-4months. Mothers who practiced EBF reported that they introduced other food substances while still breastfeeding their babies after 6 months and the regular foods they give them is millet porridge (Bushera).

Comments made by mothers on their experience during the first six months with their children include;

“I will never allow my child to be thirsty so I will give him water some times. Although we were told not to introduce water to the babies until after 6 months, but I can imagine my child crying always and continue to remain light weighted (1st breastfeeding mother).

My child demand for breast milk is much and because my milk is insufficient, I give him water and little porridge some times because I can see him crying all the time.(2nd breastfeeding mother).

During the focus group discussions, the mothers shared their experiences and practices of infant and young child feeding in the first six months and after as follows;

“It took me four hours to initiate breastfeeding, I was feeling weak. When I gained strength, went for shower, fed myself then returned later to feed the child” (FGD participant 1)

Given the low rate of exclusive breastfeeding, during the focus group discussions the mothers were probed on why they practiced mixed feeding;

“For me I go to the garden everyday because that’s where I get the money from to look after the baby and my other children, so when am in the garden, those at home used to feed the baby for me” (FGD participant 10)

“For me, my child’s demand for breast milk is much and because I cannot meet his demand, I had to give him porridge and cow’s milk sometimes as I continue to breast feed”.(FGD participant 7).

“For me I just felt like I should give the baby cow’s milk because for us at home we have a lot of cow’s milk” (FGD participant 8)

4.3: Maternal factors of the mothers

Univariate analysis on the maternal factors of the lactating mothers

Factor	Category	Frequency(n=201)	Percentage
Parity			
Primipara		90	44.8
Multipara		111	55.2
If multipara, did you breast feed the other child or children exclusively			
Yes		75	67.6
No		36	32.4
Does the attention of the other child /children affect the present child Breastfeeding pattern?			

	Yes	18	16.2
	No	69	62.2
Not applicable		24	21.6
ANC attendance			
	Yes	194	96.5
	No	7	3.5
Number of visits			
	2	32	16.5
3		78	40.2
4		84	43.3
Place of delivery			
Health facility		177	88.1
Home		19	9.5
TBA		5	2.5

Majority 111(55.2%) of the mothers who participated in this study were multipara (mother having more than one child) and majority 75(67.6%) of the mothers had breast fed their other child or children exclusively. Majority of the mothers denied that the attention of the other child/children affected the present child's breastfeeding 69(62.2%). Mothers who had delivered their child in a health facility setting were of the majority 177(88.1%)

4.4: Cross tabulation analysis on the relationship between maternal factors and breastfeeding practices among the lactating mothers.

Variable	Category	Exclusive breastfeeding		p-value
		Yes (69)	No (132)	
Breast milk production for the child	Sufficient Average insufficient	40(32.8%) 29(41.4%) 0(0.0%)	82(67.2%) 41(58.6%) 9(100.0)	0.041
Meal frequency during the first six months	One Two Three More than three	17(28.3%) 29(38.2%) 23(53.5%) 0(0.0%)	43(71.7%) 47(61.8%) 20(46.5%) 22(100%)	0.000
Appetite during the first six months	High Average Low	17(28.3%) 52(41.6%) 0(0.0%)	43(71.7%) 73(58.4%) 16(100.%)	0.002
Parity	Primipara multipara	29(32.2%) 40(36.0%)	61(67.8%) 71(64.0%)	0.571
If multipara, did you breast feed the other child or children exclusively	Yes No	17(22.7%) 18(50.0%)	58(77.3%) 18(50.0%)	0.004
ANC attendance	Yes No	69(35.6%) 0(0.0%)	125(64.4%) 7(100.0%)	0.052
Number of visits	2 3 4 Total	6(18.8%) 28(35.9%) 28(35.9%) 62(32.0%)	26(81.2%) 50(64.1%) 56(66.7%) 132(68.0%)	0.202
Place of delivery	Health facility Home TBA	69(39.0%) 0(0.0%) 0(0.0%)	108(61.0%) 19(100.0%) 5(100.0%)	0.001

There was a statistically significant relationship between seven individual factors and exclusive breastfeeding among lactating mothers attending health facilities in Bushenyi district. The self

rating of Breast milk production for the child ($p = 0.014$, $X^2 = 6.398$), Meal frequency during the first six months ($p = 0.000$, $X^2 = 19.953$), appetite during the first six months ($X^2 = 12.252$, $p = 0.000$), history of exclusive breastfeeding ($X^2 = 8.418$, $p = 0.004$), Attention of the other child/children affects the present child breastfeeding ($X^2 = 16.313$, $p = 0.000$), Place of delivery ($X^2 = 14.247$, $p = 0.001$).

4.5: Multivariate analysis of the logistic regression results for the relationship between maternal factors and exclusive breastfeeding practice among the lactating mothers.

			Confidence interval		
Variable	Category	Sig	AOR	Lower	Upper
Rate of breast milk production for the child					
	Sufficient	0.951	0.975	0.433	2.197
	Average	0.005	2.350	0.170	0.723
	Insufficient		1.000		
Meal frequency during the first six months					
	One	0.037	0.196	0.042	0.908
	Two	0.015	0.078	0.010	0.614
	Three	0.709	1.119	0.620	2.021
	More than three		1.000		
Rate of appetite during the first six months					
	High	0.094	0.250	0.049	1.267
	Average	0.231	2.112	0.621	7.188
	Low		1.000		
History of EBF,					

if multipara				
Yes	0.816	1.151	0.351	3.772
No		1.000		
Attention of the other child/ children affects the present child breastfeeding				
Yes	0.000	0.078	0.020	0.312
No	0.068	0.433	0.176	1.064
Not applicable		1.000		
Place of delivery				
Health facility	0.045	3.366	0.137	0.977
Home	0.576	1.178	0.663	2.096
TBA		1.000		

The results in the table above show that mothers who rated their milk production for the child as average, mothers whose meal frequency during the first six months was three, mothers who rated their appetite during the first six months, mothers who had a History of EBF with their other children, mothers who denied that attention of the other child/children affected the present child breastfeeding, mothers who delivered in a health facility, and mothers whose length of stay at the health facility after delivery was 3 days and more had the higher likelihood of practicing exclusive breastfeeding.

Table 4.6: Child factors associated with EBF

Variable	Category	Frequency (n=201)	Percentage (%)
Child's age	1-2months	12	5.97
	3-4months	63	31.34
	5-6months	57	28.36
	6-11months	60	29.85
	1-2 years	9	4.48
Gender	Male	86	42.79
	Female	115	57.21
Birth weight/infant size	1.5 -1.9kg	6	2.99
	2.0kg – 2.4kg	11	5.47
	> 2.5kg	184	91.54
Child's Appetite	High	107	53.23
	Average	57	28.36
	Low	37	18.41

Table 4.6 above show that lactating mothers whose infants were in the age bracket of 3- 4months were more 63 (31.34%) and most 115 (57.21%) of the infants were of the female gender. In terms of infant's birth weight, mothers who reported that their infants were above 2.5kg at birth were of the majority 184 (91.54%) and most 107 (53.23%) of the mothers rated the appetite of their infants high.

Table 4.7 Cross tabulation analysis on the relationship between Child's factors and breastfeeding practice (EBF) among the lactating mothers.

Variable	Category	Exclusive breastfeeding		p-value
		Yes (69)	No (132)	
Child's age	1-2months	0(0.0%)	12(9.09%)	0.501
	3-4months	0(0.0%)	63(47.73)	
	5-6months	0(0.0%)	57(43.18%)	
	6-11months	60(86.96%)	0(0.0%)	
	1-2 years	9(13.04%)	0(0.0%)	
Gender	Male	22(31.88%)	64(48.48%)	0.010
	Female	47(68.12%)	68(51.52%)	
Birth weight/infant size	1.5kg -1.9kg	0(0.0%)	6(4.55%)	0.000
	2.0kg – 2.4kg	3(4.35%)	8(6.06%)	
	> 2.5kg	66(95.65%)	118(89.39%)	
Child's Appetite	High	16(23.19%)	91(68.94%)	0.024
	Average	22(31.88%)	35(26.52%)	
	low	31(44.93%)	6(4.54%)	

Results in table 4.7 reveal that the child's gender, birth weight and appetite significantly influenced the exclusive breastfeeding practices of lactating mothers in Bushenyi District.

CHAPTER FIVE

DISCUSSIONS

5.0 Introduction

This chapter presents the discussions of the findings according to the specific objectives which were set to be achieved in this study.

5.1 The prevalence of breastfeeding practices among lactating mothers attending Bushenyi district health facilities.

In this study it was found that prevalence of EBF among lactating mothers with infants aged 6–12 months attending health facilities in Bushenyi district was low (34.3%) compared to the WHO recommended EBF coverage of 90 % and the national target of EBF coverage (80%) WHO / UNICEF (2003). The results of this study on the prevalence of EBF are consistent but higher than those reported in previous studies in Kilimanjaro (20.7%) and in Uganda (24%), but it was lower than the EBF prevalence shown by the Tanzania demographic health survey (TDHS) of 2010 (50%) and for developing countries (35%). The difference of EBF observed between this study and TDHS may be due to methodologies used to estimate EBF.

Breastfeeding practice among the mothers at birth on the other hand was good because (62.7%) of the women initiated breastfeeding within one hour of birth. However, compared to other studies it is lower. For example in Nairobi, a study conducted by Muchina (2007) showed that majority (74.6%) of mothers initiated breastfeeding within 0 – 1 hour. This relatively low rate of breastfeeding initiation could be due to a number of factors like culture where some people consider colostrums to be contaminated milk and therefore not good for babies or due to obstetric factors whereby some mothers could have spent more time recuperating after surgical procedures like

cesarean sections. Nevertheless, it was higher compared with national prevalence level as reported by KDHS (2008 – 09) where 58% of mothers initiated breastfeeding within one hour after birth.

The seemingly fair practice of initiating breastfeeding within 1 hour by the women was offset by early introduction of water, cow's milk and semi-solids. Between birth and one month cereal porridges and cow's milk was the main addition making predominant breastfeeding common mode of feeding. From one to third month after birth foods used for complementary feeding i.e. cow's milk, porridge and mashed bananas were introduced leading to a predominant mix feed group of children. This is almost the similar to the TDHS report 2004/05 and 2010 which showed that 33%-37% of infants below six months had receive complementary foods i.e. any solid and semisolid foods a day proceeding the interview day (NBS, 2010). This implies that some children born to women in Bushenyi district are prone to mortality since mixed feeding is responsible for frequent risk of infections like diarrhea and pneumonia, increased mortality and higher risk of HIV transmission to infants (WHO, 2009).

The findings of this study had similarities with other studies which reported the same trend. In a study conducted in Eastlands, Nairobi, by Ashene (2006), 31.8% of infants were introduced to foods/liquids at two months and below whereas 68.9% between 2 – 4 months. Muchina (2007) found that 63.4% infants aged below four months were introduced to foods/fluids.

5.2 The maternal factors influencing exclusive breastfeeding among lactating mothers attending Bushenyi district health facilities

In this study, mothers who rated their milk production for the child as average, mothers whose meal frequency during the first six months was three, mothers who rated their appetite during the first six months, mothers who had a history of EBF with their other children, mothers who denied

that attention of the other child/children affected the present child breastfeeding and mothers who delivered in a health facility had the higher likelihood of practicing exclusive breastfeeding.

The finding that self rating of breast milk production had a significant influence on EBF practices of the mothers in this study, relates with the breastfeeding confidence that the mothers had. Mothers who rated themselves having insufficient breast milk for their children had low confidence in themselves and this affected milk let down at the psychological level. This explains why they mixed fed. Low maternal breastfeeding confidence is associated with early cessation of breastfeeding (Blyth et al., 2002; Dunn, 2006; Ertem, 2002; Forster et al., 2006). To back this explanation, a descriptive study of 198 pregnant women, by O'campo found that women with low confidence in their ability to breastfeed had 3.1 times the risk of discontinuing breastfeeding before six months postpartum when compared with women who had high confidence (95% CI= 1.39-6.76) (O'campo et al., 1992). This is why mothers who rated themselves as average and sufficient producers of breast milk had better feeding practices than their non confident counterparts.

5.3 Child's factors influencing exclusive breastfeeding among lactating mothers in Bushenyi District

Finding of this study shows that among the child's or infant's factors investigated to ascertain their influence on the practice of breastfeeding (exclusive), child's gender($p=0.010$), birth weight($p=0.000$) and appetite($p=0.024$) significantly influenced the exclusive breastfeeding practices of lactating mothers in Bushenyi District. This result is confirmed by a study conducted by Karacam Z. who opined that outside maternal factors, studies have also shown that the babies' general behaviour influence what feed they receive. Low birth weight infants are less likely to exclusively breastfeed and may be associated with the belief that breast milk substitute is required to make up the low weight. (Karacam Z. 2008, Matias, Nommsen-Rivers, 2012 & Butte Lopez-alatcon et al, 2002).

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the conclusion and recommendation of the study. The conclusions are presented based on the findings of each objective while the recommendations are made on the basis of practice, policy making and further research.

6.1 Conclusion

The prevalence of breastfeeding practices among lactating mothers attending Bushenyi district health facilities.

Findings of this study show that that prevalence of EBF among lactating mothers with infants aged 6–12 months attending health facilities in Bushenyi district was 34.3%. That is to say approximately 7 out of 10 mothers in Bushenyi district practice mixed feeding. Initiation of breastfeeding within one hour of birth among the mothers was found to be 62.7%. All the mothers practiced EBF complemented proper and the food they introduced to their infants were mostly Bushera.

The maternal factors influencing exclusive breastfeeding among lactating mothers attending Bushenyi district health facilities

Mothers who rated their milk production for the child as average, mothers whose meal frequency during the first six months was three, mothers who rated their appetite during the first six months, mothers who had a history of EBF with their other children, mothers who denied that attention of the other child/children affected the present child breastfeeding and mothers who delivered in a health facility had the higher likelihood of practicing exclusive breastfeeding.

The Child's factors influencing exclusive breastfeeding among lactating mothers attending Bushenyi district health facilities

Findings of this study indicate that the child's gender, birth weight and appetite significantly influenced the exclusive breastfeeding practices of lactating mothers in Bushenyi District.

6.2 Recommendations

The prevalence of breastfeeding practices among lactating mothers attending Bushenyi district health facilities.

- Enlightenment campaign about benefits of exclusive breastfeeding for mother and child should be done using various languages in order to accommodate women who do not understand English and those with low educational level.
- Extending maternity leave to six months for all working mothers could promote exclusive breastfeeding for six months.
- Government should liaise with all employers of labour to ensure and improve breastfeeding support in the work place.

The maternal factors influencing exclusive breastfeeding among lactating mothers attending Bushenyi district health facilities

- Breastfeeding counseling during antenatal care should be centered on solving problems associated with breastfeeding.

The Child's factors influencing exclusive breastfeeding among lactating mothers attending Bushenyi district health facilities

- Maternal and child health issues should be promoted in health facilities and communities to involve the married couples and single mothers.

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APPENDIX 2

CONSENT FORM

My name is.....I am currently pursuing a Bachelors degree in clinical medicine from Kampala International University, Uganda. As part of the requirements award of the degree, I am under taking a study titled: **FACTORS INFLUENCING BREASTFEEDING PRACTICES AMONG MOTHERS ATTENDING HEALTH FACILITIES IN BUSHENYI DISTRICT- WESTERN UGANDA.**

I hereby wish to solicit your consent to participate in this study. I want to assure you that the responses you will give will be kept strictly confidential for all matters and it will only be used for the purpose of the study mentioned. Your name will not be mentioned to protect your confidentiality.

You have a right not to answer questions which might be inconvenient to you.

Thank you for your cooperation.

Consent form for study participants

I have been informed about the purpose of your study and your promise on confidentiality. After all these, I now understand and:

1. I agree to participate in this research voluntarily -----
2. I didn't agree to participate in this research -----

Interviewee name -----signature/date.....

QUESTIONNAIRE

Pick in the brackets for each item.

Section 1: Socio-demographic information

- **Age:**

2. Marital status: Married [] Single [] Separated [] Divorced []

- **level of education:** No formal education [] Primary school [] Secondary school []
Post Secondary education []

4. Occupation: Employed [] Self employed [] Peasant [] House wife []

5. Religion: Catholic [] Protestant [] Muslim [] Others.....

6. Area of Residence: Urban [] Rural []

Section 2: Maternal factors

Mode of delivery

7. What was the mode of delivery of your previous pregnancy?

Vaginal Birth [] Cesarean Section []

8. If you underwent a cesarean section, when did you start breast feeding your child for the first time?

Less than 1 hour after birth [] 1 – 3 hours after birth [] 4–11 hours after birth []
12 –23 hours after birth [] 48 hours after birth [] Don't know/don't remember []

Parity

9. Is this your first or only child (Primipara)? []

Do you have another or children beside this current one (Multipara)? []

10. If multipara, did you breast feed the other child or children exclusively?

Yes [] No []

11. Does the attention of the other child/children affect the present child breastfeeding?

Yes [] No [] Not applicable []

Place of delivery

12. Place of delivery

Health facility [] Home [] TBA []

13. How long did you stay in the health facility before delivery?

Less than one day [] 1 – 2 days [] 3 days and more []

• **For how long did you remain at the health facility after delivery?**

< 1 day [] 1-2 days [] 3days and more []

Section 3: Child's factor

18. Age of infant/child

> 1 month [] 1-2 months [] 3-4 months []

4- 6months [] 6months [] 1-2years []

19. Sex:

Male [] Female []

20. Infant health:

Cleft Palate [] Cleft Lip [] Cerebral Palsy [] None []

21. Have your baby been admitted in hospital for malnutrition?

Yes [] No []

22. Which of the following diseases has this baby suffered often in the past six months?

Diarrhoea [] Anaemia [] Respiratory infections [] Others (specify).....

Child's appetite

23. Does your child like breast milk? Yes [] No []

24. How can you rate the demand of your child for breast milk?

Low [] Average [] High [] Very high []

25. Birth weight/infant size

>2.5kg [] 2.5-3.5kg [] <3.5kg []

Section 4: Breastfeeding practices

Initiation

26. How soon after birth did you breastfeed your baby for the first time?

- Less than 1 hour after birth []
- 1 – 3 hours after birth []
- 4 –11 hours after birth []
- 12 –23 hours after birth []
- 24 hours or more after birth []
- Don't know/don't remember []

Exclusive breastfeeding, complementary and mixed feeding

27. during the first six months after birth of this baby, was the baby fed anything other than breast milk?

Yes []

No []

28. If yes, what was fed to your baby?

Cow's milk(amate) []

Glucose (sugar) water []

Porridge []

Mashed bananas []

Formula-based milk []

Others(specify).....

29. If No, how old was this baby when you introduce other food substances?

3months [] 4months [] 5months [] after 6months [] 1 year []

FGD GUIDE

Exclusive Breastfeeding

Probes;

- How is breast feeding done in the first six months of the child by women in the communities where you stay?

.....

.....

.....

- During those six months, do women give their children other foods other than breast milk?
if yes please explain

.....

.....

.....

- Why is it that during the first six months, some mothers don't like breastfeeding their children?

.....

.....

Maternal factors

Probes;

Do you think that the way a mother's body functions can affect the practice of EBF? If yes, what is your opinion on the possible influence of the following?

Parity

.....

.....

.....

.....

ANC Attendance

.....

.....

.....

Place of delivery

.....

.....

.....

.....

BUDGET

Activities	Particulars	Price (UGX)	Total amount (UGX)
Copies of Research proposal for supervisors comments and corrections	Typing and Printing	13,000	13,000
Research Proposal submission to SPGS & R and defense	Typing, printing, binding and other logistics.	12,000	56,000
Data collection			
	Feeding and	50,000 each day x 5	70,000
Data analysis/dissertation	Transportation of Research assistants.		
	Typing, printing, binding and transport.	700,000	100,000
Miscellaneous		300,00	300,000
			50,000
TOTAL			589,000