

**COMPLEMENTARY FEEDING PRACTICES AND ASSOCIATED FACTORS IN
CHILDREN BELOW THE AGE OF 24 MONTHS IN KITUMBA SUB COUNTY-
KABALE DISTRICT**

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DECLARATION

I, **BIRUNGI B.K. VALENTINE**, hereby declare that this dissertation is my original work, except where citations have been made and acknowledged, and has never been submitted to any institution of higher learning for any academic award.

Signed

.....

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Date 08/03/2021

APPROVAL

This dissertation on factors influencing complementary feeding practices in children below the age of 24 months in Kitumba sub county-- Kabale district has been prepared under our supervision and is ready for submission and examination.

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Date

DEDICATION

This work is dedicated to all mothers and my children, MERYLYN, ROSALIND, PAUL and PETER.

And to all those who struggle to make the world a better place for the growth and development of young children.

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TABLE OF CONTENTS

DECLARATION	iii
APPROVAL	iv
DEDICATION	v
ACKNOWLEDGEMENTS	vi
TABLE OF CONTENTS	vi
LIST OF ABBREVIATIONS	xi
ABSTRACT	xiii
CHAPTER ONE	1
INTRODUCTION	1
1.1 Introduction.....	1
1.2 Background.....	3
1.3 Statement of the problem.....	5
1.4 Objectives of the study.....	5
1.4.1. The general objective.....	5
1.4.2. Specific objectives	5
1.5 Research questions.....	6
1.6 The scope of the study	6
1.7 Significance of the Study	6
1.8 Conceptual framework.....	7
CHAPTER TWO:	8
LITERATURE REVIEW	8
2.0 Introduction.....	8
2.1 Magnitude of poor feeding practices	8
2.2 Contributing factors to the problem.....	10
2.2.1. Parental/care givers' involvement in child feeding	10

2.2.2 Family members' involvement in complementary child feeding	10
2.2.3 Parental knowledge of child feeding practices	11
2.3 Parental attitudes, and beliefs on young child feeding	11
2.4 Infant and young children feeding practices	12
2.4.1. Breastfeeding	12
2.4.2. Initiation of breastfeeding	13
2.4.3 Exclusive breastfeeding	13
2.4.4 Complementary feeding.....	14
2.4.5 Principles for complementary feeding	14
2.5 Socio-demographic Factors associated with Complementary Feeding	16
2.6 Inappropriate complementary feeding	17
CHAPTER THREE	19
METHODOLOGY	19
3.0 Introduction.....	19
3.1 Research design	19
3.2 Demographic characteristics of the area of study	19
3.3 Study Population.....	20
3.4. Sample size determination	20
3.5 Sampling procedure	20
3.5.1 Inclusion criteria	21
3.5.2 Exclusion criteria	21
3.6 Methods of data collection.....	21
3.6.1. Qualitative.....	21
3.6.1.1 In-depth interview	21
3.6.1.2. Focus group discussions	22
3.6.2. Quantitative.....	22
3.6.2.0. Survey questionnaire.....	22

3.7. Observation checklists	22
3.8. Ethical consideration.....	22
3.9. Quality control	23
3.10 Data management and analysis	23
CHAPTER FOUR:.....	24
DATA PRESENTATION AND ANALYSIS	24
4.0 Introduction.....	24
4.1 Socio-demographic characteristics of Study participants	24
4.2 Prevalence of complementary feeding of children aged up to 24 months in Kitumba Sub County	26
4.3 Parental practices on complementary feeding practices in Kitumba Sub county	26
4.4.Socio-demographic Factors influencing complementary feeding practices in Kitumba Sub county in Kabale district	29
CHAPTER FIVE:	33
DISCUSSION OF FINDINGS	33
CHAPTER SIX:.....	35
CONCLUSIONS AND RECOMMENDATIONS	35
6.1 Conclusions.....	35
6.2 Recommendations.....	35
REFERENCES	37
Appendix I: Respondent’s Consent Form.....	42
Appendix II: Interview Guide.....	43
Appendix III: Focus Group Discussion Guide.....	47
Appendix IV: Questionnaire for Female Participants with Breastfeeding Children	50
Appendix V: Responses on indicators of complementary feeding in Kitumba Kabale district.	52
Appendix VI: Data Collection Checklist	56
Appendix VII: Introductory Letter.....	57
Appendix VIII: Map of Uganda Showing the Study Area	58

LIST OF ABBREVIATIONS

BF	Breast Feeding
BFC	Breast Feeding Child/Children
CFC	Complementary Feeding Child/Children
CHW	Community Health
EBF	Exclusive Breast Feeding
EBFC	Exclusive Breast Feeding Child/Children
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
HEWs	Health Extension Workers
IDI	In depth Interview
IYCF	Infant and Young Child Feeding
KAP	Knowledge Attitude and Practices
KDLG	Kabale District Local Government.
KII	Key Informant Interview
LCS	Local Council Leaders
MOH	Ministry of Health
NGO	Non-governmental Organization
PHC	Public Health Care
SPSS	Statistical package for social scientists
UBOS	Uganda Bureau of Statistics
UDHS	Uganda Demographic and Health Survey
UN	United Nations
UNFPA	United Nations Population Fund

UNHS Uganda National Household Survey

UNICEF United Nations Children Education Fund.

USAID United States Agency for International Development

VHT Village Health Teams

WHO World Health Organization.

ABSTRACT

The UDHS 2016 portrayed Kigezi sub region with nine per cent of children suffering malnutrition and stunting. This was attributed to poor nutritional practices among other factors. A few studies have been done in the region to assess the factors which influence complementary feeding practices among the children below the age of 24 months. This study was to determine the prevalence of complementary feeding practices; describe indicators of complementary feeding and identify the socio-demographic factors associated with children feeding in Kitumba Sub county, Kabale district. The study was a descriptive cross-sectional survey which used qualitative and quantitative methods of data collection. The study found out that the prevalence of complementary feeding was generally low (58%). Both parents were involved in child feeding even though it was perceived that child feeding was the mother's responsibility. Mothers made the decisions on when to introduce complementary feeding and had the responsibility to introduce complementary feeding. Maize porridge and sorghum was provided to the children alongside paste and vegetables. Children were encouraged to eat by giving them attention. If a child kept crying after breastfeeding, it was perceived that he/she did not get satisfied and this was a justification for early initiation of complementary food. Sickness and death of a breastfeeding mother also influenced early initiation of food. Age and education of caretakers significantly influenced complementary feeding practices of children. It is imperative that programmes focused on increasing complementary feeding practices should be conducted such as comprehensive nutrition education by health workers, making home visits, and reinforcement of IYCF through local leaders following the WHO guideline.

OPERATIONAL DEFINITIONS

Complementary feeding: refers to the process starting at 6 months to 24 months when breast milk is no longer sufficient to meet the nutritional requirements of infants, and therefore other foods and liquids are introduced to the infant, along with breast milk (WHO, 2003).

Complementary feeding practices: time of introduction of solid and semi-solid foods or soft foods; frequency of feeding, dietary diversity; consumption of iron-rich foods and continued breastfeeding among children below 24 months old (WHO, 2003).

Appropriate complementary feeding: a multi-dimensional indicator used to assess the extent to which adequate child feeding is met. The proportion of children aged below 24 months breastfed and non-breastfed infants and young children who meet minimum standards of minimum dietary diversity and minimum meal frequency (WHO, 2008).

Minimum dietary diversity: The proportion of infants below the age of 24 months who receive foods from 4 or more food groups the previous day. The seven food groups used for tabulation of this indicator are: grains, roots and tubers; legumes and nuts; dairy products (milk, yoghurt and cheese); flesh foods (meat, fish, poultry and liver/organ meats); eggs; vitamin A-rich fruits and vegetables; and other fruits and vegetables (WHO, 2008).

Practices: Activities of caregivers in the household which translate food and nutritional security and health care resources into a child's growth and development.

Complementary food: Foods given to a child in addition to breast milk usually introduced between 1 and 24 months of age

Minimum meal frequency: The proportion of breast fed and non-breastfed children up to 24 months of age, who receive solid, semi-solid, or soft foods (but also including milk feeds for non-breastfed children) the minimum number of times or more. (Minimum is defined as: two times for breastfed infants up to 8 months; three times for breastfed children up to 24 months; and four times for non-breastfed children up to 24 months).

CHAPTER ONE

INTRODUCTION

1.1 Introduction

Complementary feeding is the feeding of solid, semi-solid or soft foods to a child or an infant in addition to breast feeding. According to the World Health Organization, complementary feeding should be introduced timely at 6 months of age, sufficient meal frequency and diversity of diet. (WHO, 2008). The infant and young child feeding policy guidelines in Uganda recommend complementary foods to start at 6 to 8 months. This is because the nutrient and energy needs of the child increase and breast milk alone is not sufficient to meet these nutrient needs. Appropriate complementary feeding is a function of adequate frequency of feeding and food diversity (energy and nutrient density) and continued breastfeeding.

Poor breastfeeding and inadequate complementary feeding practices, coupled with high rates of infectious diseases, are the principal proximate causes of malnutrition during the first two years of life. Infants are susceptible to malnutrition if the complementary foods given are of low nutrient density, have a low bioavailability of micronutrients and are introduced too early or too late in small amounts or not frequently enough (WHO, 2016).

Premature cessation or low frequency of breastfeeding in infants below six months also contributes to insufficient nutrient and energy intake, hence further compromising the infants' nutritional status (WHO, 2017).

Appropriate feeding practices lower morbidity and mortality and reduce the risk of diseases later in life (WHO, 2015). Proper feeding from the period of birth to two years implies ensuring early initiation of breastfeeding and exclusive breastfeeding during the first six months, as well as the introduction of safe and nutritionally adequate complementary foods with continued breastfeeding for up to two years and beyond (UNICEF, 2017; Black et-al., 2013). Early initiation of breastfeeding within one hour after birth, protects the newborn from acquiring infections and reduces newborn mortality (WHO, 2015). It serves as the starting point for a bond between mothers and newborns that can have long-lasting effects on the child's health and development (WHO, 2016). Breast milk alone with no water, is enough to provide adequate nourishment for the infant as it provides all the nutrients, antibodies and immune factors an

infant needs (WHO, 2016). It is estimated that exclusive breastfeeding could prevent up to 1.4 million deaths every year out of the 10 million annual deaths among under-five children. Breastfeeding should be done on demand, whenever the infant wants and it is usually done eight to 12 times in a 24-hour period (WHO, 2017).

Appropriate complementary feeding practices with the right quality and quantity of food are essential for the growth and development of infants and young children. These are:

- i. Introducing complementary foods at six months of age while continuing to breastfeed;
- ii. Continued breastfeeding on-demand until two years of age or beyond;
- iii. Providing safe and adequate complementary foods starting with small amounts and increasing the quantity as the child grows older while maintaining breastfeeding frequency;
- iv. Practicing responsive feeding;
- v. Increased food consistency and variety;
- vi. Meal frequency and energy density of two to three times per day from six to eight months of age, and increasing to three to four times per day from nine to eleven months and 12 to 24 months of age;
- vii. Provision of a variety of nutrient-rich foods;
- viii. Good hygiene and proper food handling which is important to prevent infections especially diarrhoea;
- ix. Appropriate feeding during child illness which is important to increase fluid intake so that they are able to replace the nutrients lost.

Providing appropriate complementary feeding remains a challenge, especially in low-income countries like Uganda as evidenced by a remarkable increase in the levels of child under-nutrition from the age of six to 60 months (Black et al., 2013); WHO, 2017; UNICEF, 2017, 2018).

Globally, minimum meal frequency is at 52.2%, minimum dietary diversity is at 29.4% and minimum acceptable diet is at 16% (White et al., 2017).

In sub Saharan Africa, poor complementary feeding practices have been shown to contribute to negative growth trends in developing countries. Analysis of demographic health survey data of 12 African countries has shown that less than a half of those countries meet the minimum

acceptable diet (Onyango et al., 2014). In East and Southern Africa, minimum meal frequency is at 44.6%, minimum dietary diversity is at 35.0% and minimum acceptable diet is at 11.5% (White et al., 2017).

In Uganda the minimum meal frequency is 25.7%, minimum dietary diversity is 41.6% (UNICEF, 2018) and minimum acceptable diet for infants and young children up to 24 months is currently at 14% (UBOS, 2017).

Appropriate complementary feeding is important during the period of up to 24 months since it is also regarded as “critical window” for a child’s health, growth, and development. A review by Abeshu et al. (2016) reported that Complementary feeding should be timely, starting at 6 months, adequate (in amount and variety). During these years of formation, poor nutrition has consequences on the health of children which may result into malnutrition. This malnutrition leads to low cognitive ability, morbidity, mortality, reproductive outcomes, reduced work capacity and health status (COHA, 2013).

1.2 Background

Globally, inappropriate complementary feeding of children remains one of the major causes of malnutrition, morbidity and death in children (World Health Organization, 2017). Complementary feeding entails feeding children aged below 24 months with foods from four or more food groups at least twice a day (World Health Organization, 2014). Inadequate complementary feeding practices are among the main causes of under-nutrition among children of this age (Black et al., 2008).

Across the world, reports indicate that 1.4 million children died before they reached the age of five years due to poor complementary feeding practices (World Bank, 2014). Besides, a total of 161 million under-five children were stunted, 17 million wasted, and 99 million were underweight worldwide as a result of poor complementary practices (Tigist et al., 2016).

If appropriate complementary feeding practices were scaled up, approximately 100,000 deaths in children under five could be averted each year. Nutritious diets are the fuel for sustainable development. Combined with a responsive caregiver and a safe environment, good nutrition promotes positive outcomes within households, communities and nations (UNICEF, 2016).

In appropriate complementary feeding affects the nutrition status of infants and young children (Saaka et al., 2015). Malnourished children who survive frequently suffer sickness and impaired development. Two-thirds of the deaths that occur as a result of malnutrition are associated with inappropriate complementary feeding. Complementary feeding frequently begins too early or too late, and foods are often nutritionally inadequate and not safe. Because poor feeding practices are a major threat to social and economic development, they are among the most serious obstacles to attaining and maintaining health that face this age group (WHO, 2003).

In a study done on Maternal and child undernutrition, at least 6% of deaths of children under five years of age could be prevented by adequate complementary feeding (Black et al., 2008). Feeding children aged below 24 months with diversified diets of four or more food groups at least twice a day can prevent micronutrient deficiencies, stunting and wasting. Supplementing breastfeeding with nutritious complementary foods can reduce stunting among children of this age by 20%.

A World Health Organization report (2017) indicated that 7 % of infants consumed plain water, 6% consumed non-milk liquids, 8 % consumed other milk, and 11 % consumed complementary foods in addition to breast milk. This is inappropriate IYCF since it contradicts the principle of dietary diversity as per WHO guideline (WHO, 2008).

Although, complementary foods are intended to “supplement” ongoing breastfeeding and thus facilitate the transition from milk feeding to family foods, in Africa, the problem of inadequate complementary feeding practices continues to be the leading cause of poor growth among children (Areja, Yohannes, & Yohannis, 2017). For instance, a UNICEF (2017) report on the nutrition status of children under 5 years showed that 29 % stunted and 11% were underweight. In addition, children in rural areas were slightly more likely than those in urban areas to be underweight (11 % versus 8%).

According to Uganda Demographic and Health Survey (2016), child feeding practices for all children born in the two years preceding the survey, 66 % of infants under age 6 months were exclusively breastfed. This means that 34% were not exclusively breastfed. Eleven per cent of infants under the age of 6 months were fed using a bottle with a nipple, a practice that is discouraged because of the high risk of illness to the child. Kabale district is among the districts with the highest stunting prevalence and late initiation of complementary feeding although information regarding various contextual settings in Kabale district are unknown. This explains

why this study was conducted to assess factors influencing complementary feeding practices of children up to the age of 24 months in Kitumba Sub county, one of the areas in Kabale district.

1.3 Statement of the problem

Inadequate complementary feeding of children contributes to negative growth trends and deaths (World Health Organization, 2014). Kigezi sub region has high levels of both chronic and acute malnutrition, possibly resulting from poor complementary feeding practices. Data in Kigezi sub region indicates 9% of children as below -3SD, 30% below -2SD and 45.9% had diarrhoea infection (UDHS, 2016). evidence has shown that promotion of appropriate complementary feeding practices reduces the incidence of stunting (Malembaka et al., 2019) and leads to better health and growth of children (Bekele & Turyashemererwa, 2019). However, no studies in the region have determined the complementary feeding practices and the factors that influence them. Lack of such information makes it difficult for local policy makers and health workers to make appropriate interventions to improve complementary feeding practices, thus perpetuating child malnutrition. This study was therefore set out to fill this information gap.

1.4 Objectives of the study

1.4.1. The general objective

The purpose of this study was to investigate the factors associated with complementary feeding practices in children below the age of 24 months in Kitumba Sub county in Kabale district.

1.4.2. Specific objectives

- i. To identify the complementary feeding practices used by parents /care givers in providing nutritional needs of children aged up to 24 months in Kitumba Sub county in Kabale district.
- ii. To determine the factors associated with complementary feeding practices of children aged below 24 months in Kitumba Sub county in Kabale district.
- iii. To identify the factors which influence the initiation of complementary feeding of children aged 24 months in Kitumba Sub county in Kabale district.

1.5 Research questions

The research study was guided by the following questions:

- i. What are the complementary feeding practices for the children below the age of 24 months in Kitumba Sub county in Kabale district?
- ii. What factors influence complementary feeding practices for children below the age of 24 months in Kitumba Sub county in Kabale district?
- iii. What factors influence the initiation of complementary feeding to children aged below 24 months in Kitumba Sub county in Kabale district?

1.6 The scope of the study

1.6.1. Time scope

The study was conducted in a period between August and October 2018.

1.6.2. Content scope

This study was limited to an assessment of factors influencing complementary feeding practices in children aged below the age of 24 months in Kitumba Sub county in Kabale district.

1.6.3. Methodological scope

A triangulation of methods was used whereby focus group discussions, interviews and questionnaires were employed.

1.6.4. Geographical scope:

The study was carried out in Kitumba Sub county Kabale district.

1.7 Significance of the Study

Improved health status is a very important aspect related to economic growth of a country. The output of this study would therefore benefit researchers and policy makers.

It would contribute to the scientific knowledge on nutrition and, in particular, the Government of Uganda can use the findings to design specific policies for improving nutritional status of children. The study would make an important contribution to literature (study material) by addressing research gaps in the nutritional health status of children.

The study would earn the researcher an academic award and may be adopted to formulate policies aimed at helping child health.

1.8 Conceptual framework

Complementary feeding practices (good or poor) are influenced by age of the mother, other parent or caregiver, their educational level, location (rural or urban), religion and occupation through influencing the parent's level of knowledge and attitudes on child feeding practices. Health system factors, child factors, and cultural factors are intervening factors.

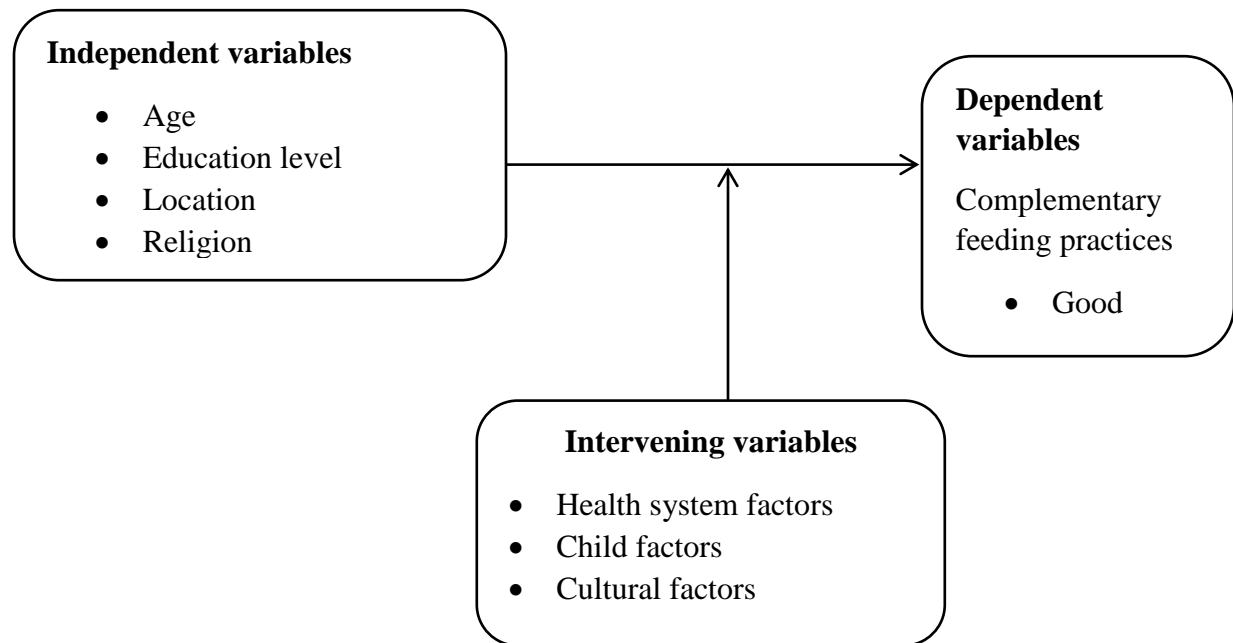


Figure 1: Conceptual framework

CHAPTER TWO:

LITERATURE REVIEW

2.0 Introduction.

This section presents the literature review for the study. The review gives a summary of the importance of child nutrition, and child feeding (CF) practices, and complementary feeding practices among breastfeeding mothers of children aged below 24 months and the associated factors influencing involvement in CF.

2.1 Magnitude of poor feeding practices

The global strategy for infant and young child feeding aims to improve through optimal feeding the nutritional status, growth and development, health, and thus the survival of infants and young children. Because poor feeding practices are a major threat to social and economic development, they are among the most serious obstacles to attaining and maintaining health that face this age group. Accurate information on optimal feeding practices is lacking, and the number of food-insecure rural and urban households is on the rise (UNICEF, 2013).

Worldwide over 1.4 million children died before they reached the age of five years due to poor feeding practices. Only 39% of children aged between zero and sixth months were breastfed exclusively in 2014 (International Food Policy Research Institute, (2016).

UNICEF (2017) reported that the nutritional status for children under age 5, showed 29 per cent short for their age or stunted (below -2 SD), 9 % severely stunted (below -3 SD). Stunting was greater among children in rural areas (30%) than urban areas (24 %), 4 % were wasted and 1% were severely wasted (below -3 SD). Eleven per cent (11%) of all children were underweight (below -2 SD), and 2 % were severely underweight (below -3 SD). Children in rural areas were slightly more likely than those in urban areas to be underweight (11 % and 8%, respectively).

Nutrition-related complications are among leading causes of death for children. Each year, approximately 5.9 million children around the world die before their fifth birthday (You and others, 2015).

In Africa, according to UNICEF (2014), 60% of children under the age of five years were undernourished; and globally, one-third of all undernourished children resided in Sub-Saharan Africa (Blessing et al., 2017).

The Ugandan infant and young child feeding policy guidelines and other policy guidelines such as the baby-friendly health facility initiative, Essential nutrition actions and the micronutrient powders guidelines have been formulated.

Despite these efforts in promoting, protecting, and supporting optimal IYCF, it has been found that complementary foods are nutritionally inadequate, and thus, appropriate complementary feeding is still very low at 14% (UBOS, 2017).

This translates into high malnutrition levels. Malnutrition is responsible for 45% of the under 5 years child mortality annually (WHO, 2017). There is need to continuously assess the complementary feeding guidelines and policies so as to determine programme gaps that require intervention (WHO, 2003a).

According to Uganda Demographic and Health Survey (2016) child feeding (CF) practices for all children born in the 2 years preceding the survey, 66 % of infants under age 6 months were exclusively breastfed. This means that 34% were not exclusively breastfed which is contrary to the World Health Organization's recommendation that children under age 6 months be exclusively breastfed. Seven per cent (7 %) of infants consumed plain water, 6% consumed non milk liquids, 8 % consumed other milk, and 11 % consumed complementary foods in addition to breast milk. Two per cent of infants under age 6 months were not breastfed at all. The percentage of children exclusively breastfed decreased sharply with age from 83 per cent of infants aged 0-1 month to 69 per cent of infants aged 2-3 months and, further, to 43 per cent of infants aged 4-5 months.

Eleven per cent of infants under age 6 months were fed using a bottle with a nipple, a practice that is discouraged because of the risk of illness to the child. Only 14% of the children age 6-24 months met the criteria for a minimum acceptable diet, which meant that 86% of all the surveyed children did not access the acceptable diet. In Kigezi sub region, data indicates 9% of the under-fives were below -3SD, 30% were below -2SD 45.9% had diarrhoea.

2.2 Contributing factors to the problem

2.2.1. Parental/care givers' involvement in child feeding

According to Thuita (2013), infants start to signal their hunger to mothers shortly after birth with irritability and sucking at a level depending of the infant's own hunger and rate of supply of food from the mother. To ensure optimal breast and complementary feeding, there is need to promote the involvement of both parents in CF. Parental involvement is the one-to-one interaction that happens between a parent and a child in activities such as feeding, where the parents assume responsibility for child care and welfare. However, mothers spend more time feeding and playing with the children than fathers. And it is natural for mothers to breastfeed. A father's involvement with a child begins after the child's birth, in newborn care by means of verbal instructions, support and supervision to the child's mother (Dumbaugh et al., 2014).

An analysis of the 2009 Infant and Young Child Nutrition Policy and Guidelines in Uganda, which is the document currently in use, reveals that there is little mention of the father's involvement. Up to 69.4% of the households in Uganda, are male-headed, but only mothers are mentioned as the caregivers for the young children in the guidelines.

Kuyper and Dewey (2012) suggest that the father's involvement in CF is vital as adequate shared knowledge on feeding practices between the spouses may assist in the development of the child. For instance, in a qualitative study conducted in Uganda, it was reported that in communities where spouses participated in CF nutrition education, fathers were able to purchase food ingredients (items) to prepare enriched porridge for the children and encouraged women to use those food ingredients. The study further reveals that there have been few studies done to assess the involvement of both parents in CF (FAO, 2015; Kuyper & Dewey, 2012).

2.2.2 Family members' involvement in complementary child feeding

A study by Thuita (2013) in Kenya further shows that grandmothers and other adult females residing in the same household with the mothers also participate in CF. Grandmothers are highly esteemed by communities as knowledgeable and experienced in child care. They are powerful decision-makers and influencers of feeding practices for infants and young children in the family. Grandmothers were primary caregivers to young children, and powerful influencers of decisions related to their general care and feeding. However, it was reported that many

grandmothers had inadequate knowledge on recommended complementary feeding practices, especially related to quantity, dietary diversity, and timing of the introduction of complementary foods (Thuita, 2013).

2.2.3 Parental knowledge of child feeding practices

A study that was carried out in Ethiopia revealed that the knowledge that parents and caregivers had on the CF practices influenced on their practices (behaviour). Improving parental knowledge on appropriate CF practices has a beneficial effect on the actual feeding practices. In some studies, prenatally given breastfeeding information to mothers has been positively associated with breastfeeding confidence initiation of breastfeeding, and breastfeeding duration.

Women's knowledge and self-efficacy on breastfeeding have also been associated with high breastfeeding rates. Maternal knowledge appears to have a beneficial influence on the initiation of complementary feeding and the quality of complementary foods. However, it was observed that mothers had higher levels of knowledge about the recommendations related to breastfeeding in comparison to their knowledge on complementary feeding. (Fahmida, et-al, 2015). Semahegn et-al, 2014; Negash, et al., 2014).

According to Mithani et al. (2015), their study in Uganda revealed that CF is mostly regarded as the mother's responsibility, and fathers are not included in CF programmes. Even in the antenatal and under-five clinics, it is mostly the mothers who participate. A father's perception on the CF practices have been linked to the mother's breastfeeding decisions. The study reported that in families where the fathers perceived breastfeeding as a good practice, mothers were more likely to initiate breastfeeding than in families where fathers did not favour breastfeeding. Some studies have suggested that since fathers often have limited knowledge on CF, they would benefit from interventions to enhance their knowledge. Providing education to fathers has been found to positively influence the actual feeding practices (Brown & Davies, 2014; Sherriff et al., 2014).

2.3 Parental attitudes, and beliefs on young child feeding

Benefits of breastfeeding are well known, but positive attitudes towards breastfeeding are needed for successful outcomes in infant feeding. Positive attitudes towards breastfeeding have been associated with the intention to breastfeed, longer duration of both exclusive and any

breastfeeding, and the introduction of complementary foods. Adolescent mothers who had more positive attitudes toward breastfeeding had higher prenatal breastfeeding self-efficacy scores.

In an Australian study, mothers who did not initiate breastfeeding had significantly lower levels of breastfeeding confidence than those who initiated breastfeeding and continued to six months postpartum (Mitchell-Box et al, 2013; Newby et al., 2014). Some studies have found positive attitudes to be associated with initiation of breastfeeding or exclusive breastfeeding duration. Negative attitudes have also been associated with child feeding, more especially towards breastfeeding in public have been found to be associated with earlier discontinuation of breastfeeding in many European countries (Scott et al. 2015).

2.4 Infant and young children feeding practices

IYCF is the most effective ways to improve child health. Appropriate feeding lowers morbidity and mortality in and reduces the risk of diseases later in life (WHO, 2015). Proper feeding from the period of birth to two years implies ensuring early initiation of breastfeeding and exclusive breastfeeding during the first six months, as well as the introduction of safe and nutritionally adequate complementary foods with continued breastfeeding for up to two years and beyond (UNICEF, 2017; Black et al., 2013). Optimal breastfeeding is at the top of effective preventive interventions for child survival (Bartle, 2013; Rollins et al., 2016). To ensure optimal CF, the WHO and the UNICEF recommended the following practices:

2.4.1. Breastfeeding

Breastfeeding is important for infants to achieve optimal growth as it gives both short-term and long-term benefits. It reduces infections and mortality, improves mental and motor development, and protects against obesity and metabolic diseases that can occur later in life (Rollins et al., 2016). Breast milk carries antibodies from the mother that help combat diseases, protecting babies from diarrhoea and acute respiratory infections (Victora et al., 2016). Breast milk provides the baby with anti-bacterial, anti-viral and anti-parasitic agents and strengthens the infant's developing immune system (WHO, 2016).

Colostrum, the first milk produced, is rich in antibodies and high in anti-infective properties that it is considered to be “the first immunization” an infant receives (Bartle, 2013; WHO, 2016; UNICEF, 2017). Exclusive breastfeeding contributes to the health and well-being of mothers; it

reduces the risk of ovarian and breast cancer and leads to more rapid maternal weight loss after birth. It is also a method of birth control, known as the lactation amenorrhea method, and therefore helps in spacing pregnancies (Rollins et al., 2016).

2.4.2. Initiation of breastfeeding

Early initiation of breastfeeding within one hour after birth, protects the newborn from acquiring infections and reduces newborn mortality (WHO, 2015). A study in rural Ghana showed that early initiation within the first hours of birth could prevent up to 22% of neonatal deaths, and initiation within the first day could prevent 16% of deaths. (Edmund et al., 2016). Another study done in Nepal found that approximately 19.1% of all neo-natal deaths could be avoided with initiation of breastfeeding within the first hour of life (Mullany et al., 2017). Early initiation of breastfeeding serves as the starting point for a bond between mothers and newborns that can have long-lasting effects on the child's health and development (WHO, 2016).

2.4.3 Exclusive breastfeeding

Breast milk alone with no water is enough to provide adequate nourishment for the infant as it provides all the nutrients, antibodies and immune factors an infant needs (WHO, 2016). Exclusive breastfeeding helps in reducing mortality in children (Kramer & Kakoma, 2014).

It is estimated that exclusive breastfeeding could prevent up to 1.4 million deaths every year out of the 10 million annual deaths among under-five children. Breastfeeding should be done on demand, whenever the infant wants and it is usually done eight to 12 times in a 24-hour period (WHO, 2017).

By the age of six months, a baby has at least doubled his or her birth weight, and becomes more active. At this age, the infants have high nutritional needs for rapid growth. Exclusive breastfeeding is then no longer sufficient to meet the infants' energy and nutrient requirements, hence need for complementary feeding. However, breastfeeding should continue with complementary feeding up to two years of age or beyond, and it should be done on demand; as often as the child wants (WHO & UNICEF, 2018).

2.4.4 Complementary feeding

At six months, infants enter a period of complementary feeding during which they make a gradual transition to eating family foods (Dewey & Brown, 2013). Due to inadequate feeding, this period is often characterized by a decline in children's nutritional status, especially in low and middle-income countries. The deficits that occur are difficult to compensate for later in life (Dewey & Brown, 2013; FAO, 2015).

Poor breastfeeding and inadequate complementary feeding practices, coupled with high rates of infectious diseases, are the principal proximate causes of malnutrition during the first two years of life. Infants are susceptible to malnutrition if the complementary foods given are of low nutrient density, have a low bioavailability of micronutrients and are introduced too early or too late in small amounts or not frequently enough (WHO, 2016).

Premature cessation or low frequency of breastfeeding in infants below six months also contributes to insufficient nutrient and energy intake, hence further compromising the infants' nutritional status (WHO, 2017).

2.4.5 Principles for complementary feeding

Adequate complementary feeding with the right quality and quantity of food is essential for the growth and development of infants and young children. The WHO developed guiding principles for complementary feeding of children:

- i. Introducing complementary foods at six months of age while continuing to breastfeed;
- ii. Continued breastfeeding on-demand until two years of age or beyond;
- iii. Providing safe and adequate complementary foods starting with small amounts and increasing the quantity as the child grows older while maintaining breastfeeding frequency;
- iv. Practicing responsive feeding. This depends not only on what is fed but also on how, when, where and by whom the child is fed Responsive feeding is a technique in which infants are fed when they express hunger, instead of being forced to keep to a feeding schedule. Using this technique, the infant is fed directly while being sensitive to their hunger and satiety cues. It is the caregiver's responsibility to watch for and respond to an infant's cues for hunger, and to be responsive to the infant's cues for satiety.

- v. Food consistency: Food consistency and variety should be increased as the infant gets older while adapting to the infant's requirements and abilities. At 12 months, most children can eat the same types of food consumed by the rest of the family.. It is important to include a variety of foods when preparing complementary food for infants to ensure that their nutritional needs are well provided for.
- vi. Meal frequency and energy density: To an average healthy breastfed infant, complementary meals should be provided two to three times per day from six to eight months of age, and increasing to three to four times per day from nine to eleven months and 12 to 24 months of age, while providing additional nutritious snacks one to two times per day, as desired. Whereas for an average non-breastfed infant, meals which include milk-only feeds, other foods and combinations of milk feeds and other foods should be provided four to five times per day with additional nutritious snacks offered one to two times per day as desired.
- vii. Provision of a variety of nutrient-rich foods: Due to the rapid rate of growth and development during the first two years of life, nutrient needs per unit body weight of infants and young children are very high. Attention should be paid to the nutrient content of the food for complementary feeding to ensure that the infant's nutrient requirements are met. Providing fortified complementary food or vitamin-mineral supplements for the infants and young children as needed is encouraged.
- viii. Breast milk has relatively low amounts of several minerals, such as iron and zinc. Therefore, the child needs to eat meat, poultry, fish or eggs daily or as often as possible, because they are rich sources of these minerals. Milk and milk products are rich sources of calcium and they should also be consumed often. A diet that does not contain animal source foods cannot meet all nutrient needs of the child at this age. If milk products and other animal source foods are not eaten in adequate amounts, both grains and legumes should be consumed daily if possible within the same meal to ensure adequate protein quality. Similarly, if milk products are not consumed in adequate amounts, other foods that contain relatively large amounts of calcium such as fish should be consumed. Other foods such as soybeans, cabbage, carrots, papaya, dark green leafy vegetables, guava and pumpkin are also useful additional sources of calcium.
- ix. Good hygiene and proper food handling: Safety of complementary foods is important to prevent infections, especially diarrhoea. This can be done by washing caregivers' and

children's hands before food preparation and eating, storing foods safely and serving foods immediately after preparation; using clean utensils to prepare and serve food; using clean cups and bowls when feeding children, and avoiding the use of feeding bottles which are difficult to keep clean.

- x. Appropriate feeding during child illness: It is important to increase fluid intake of the child during illness and frequent breastfeeding. The child should be encouraged to eat soft foods and their favourite foods so that they are able to replace the nutrients loss. After illness, the infant and child should be given food more often than usual and be encouraged to eat more. Providing age-appropriate complementary feeding also remains a challenge, especially in low-income countries. This is evidenced by a remarkable increase in the levels of child under-nutrition from the age of six to 60 months in developing countries. In many countries, less than a fourth of infants aged between six and 60 months meet the criteria of dietary diversity and feeding frequency that are appropriate for their age (Black et al., 2013; WHO, 2017; UNICEF, 2017, 2018).

2.5 Socio-demographic Factors associated with Complementary Feeding

i) Education

Studies have shown that younger parents and caregivers with high levels of education have a better understanding of the importance of child feeding and therefore are more likely to be involved in IYCF than parents with low levels of education (Hasnain et al., 2013; Katepa et al., 2015).

ii) Age

Studies done by Andre (2015) and Betoko (2013) revealed that the age of parents had an influence on how they are involved in CF. For breastfeeding, older mothers have been reported to have more positive attitudes and to initiate and maintain breastfeeding longer than younger mothers.

iii) Economic status

According to Heymann et al. (2013), parents' economic status influences on their involvement in CF. Traditionally, financial provision is considered to be one of the primary contributions of fathers. A qualitative study that was conducted in Kenya found that a mother's food insecurity

and hunger led to her experiencing milk insufficiency and anxiety about infant hunger. Foods high in protein and micronutrients are often expensive, which makes it impossible for low income families to purchase them for their children (Darmon & Drewnowski, 2015).

iv) Cultural norms

A study in Kenya found that the pressure to embrace this cultural definition of masculinity hindered most men in actively participating in child care (Thuita, 2013). Culture can positively influence parental involvement in CF practices when the cultural patterns are supportive of the appropriate feeding practices. In some Sub-Saharan African countries, mothers are not allowed to be involved in sexual activities during the breastfeeding period because of the belief that intercourse would spoil the breast milk. Such a taboo may increase pressure on mothers to terminate breastfeeding earlier than they would otherwise do.

2.6 Inappropriate complementary feeding

A study conducted in Ghana indicated that inappropriate complementary feeding after 6 months of age is one major cause of malnutrition. Malnutrition was the leading cause of the global burden of disease and has been identified as the underlying factor in about 50 % of deaths of under-fives in developing countries. Nearly a third of these children were stunted and a quarter were underweight; a situation which was expected to worsen in some parts of the world including sub-Saharan Africa. In Ghana, it was estimated that about 40 % of children aged 18–23 months were stunted (height-for-age more than – 2 SD below the median height- for-age of the reference population). (Abukari Issaka et al., 2014).

This was contrary to the WHO recommendations that all children should be exclusively breastfed for the first 6 months of life; infants should thereafter receive complementary foods that are nutritionally safe and adequate while breastfeeding continues until 2 years or beyond.

Poor diversity in complementary food among children aged below 24 months was also reported in Malawi. A study conducted by Kumwenda revealed that about 93% of the children who were introduced to complementary foods were given foods from grains and plant-based sources, which do not sufficiently provide micronutrients such as iron, vitamin A and calcium (WHO/UNICEF, 1998; Phiri, 2013).

FAO (2014) also reported sub-optimal IYCF practices in Malawi which included delayed initiation of breastfeeding and early introduction of foods before six months for breastfeeding children and inappropriate complementary feeding (low frequency of meals per day, provision of thin porridge and meals that predominantly consist of plant foods of low nutrient quality). Adequate nutrition knowledge, positive attitudes and good feeding practices, among others, are essential for optimal IYCF. However, this requires concerted efforts from both the father and mother for the benefit of the child (Kuyper and Dewey, 2012).

IYCF is influenced by both relatives and household heads (most often males), especially on the options and modes of feeding (Kuyper & Dewey, 2012; FAO, 2014). There is some evidence that males do not clearly understand their roles in IYCF despite their actions having direct and indirect impact on the child feeding practices (Kuyper & Dewey, 2012). Unclear male roles on child feeding could be attributed to the fact that the community and health system standards do not sufficiently support their participation (Thuita, 2013). In most cases, only mothers are targeted with information on child health and nutrition (FAO, 2015).

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter covers a description of the methodology which were adopted in the research study. It describes the research study, research design, area of the study, study population, sampling procedure, sample size and its determination, data collecting methods and instruments, data collecting procedure, quality control (reliability and validity of the data and instruments), data analysis techniques and ethical consideration.

3.1 Research design

The study used a community based descriptive, cross-sectional survey design which was analytical and descriptive in nature. Both qualitative and quantitative methods of data collection were used. This design was chosen because it involved data collection from respondents at one point in time and because of the short time that was available for the study.

3.2 Demographic characteristics of the area of study

The study was carried out in Kitumba Sub county, Kabale District, which is located in southwestern Uganda, at about GRIDS30⁰EAST of Greenwich and 1.4⁰SOUTH of the Equator. These people are engaged in different economic activities, civil service, trading and agricultural practice (dairy farming on the part of the rich and crop production by indigenous peasants) subsistence farming to a big extent. Bukoora parish is known for blacksmithing.

Kitumba Sub county is at an altitude of about 2000 metres above sea level with about 1250 to 1500 mm of annual rainfall and the temperature is usually under 22.5⁰C (UBOS, 2017). Kitumba Sub county had 19,500 people, of these 10,050 were females, 9,450 males. Kitumba had 4,175 households with an average size of 4.6 members (Kabale District Development Plan 2015-2020).

3.3 Study Population

The target population was infants and young children, aged below 24 months residing in Kitumba Sub county. Mothers and caregivers became the primary target as respondents because they spent more time with children, and therefore were most involved in breastfeeding and complementary feeding.

3.4. Sample size determination

Considering a number of 4175 households, a total number of 216 respondents were generated using Morgan's formula with 95% confidence level and 0.5% margin of error (Krejcie and Morgan, 1970; UBOS, 2017).

$$S = \frac{x^2 NP(1-P)}{d^2(N-1) + X^2 P(1-P)}$$

Where;

S=sample size

X^2 =table value of chi-square for 1° of freedom at a desired confidence level(3.841).

N=population size.

P= the population proportion (assumed to be 50 since it would provide maximum size)

d^2 =degree of accuracy expressed as a proportion (0.5)

3.5 Sampling procedure

Kitumba Sub county is made up of five parishes (Bushuro, Mwendo, Bukoora, Kitumba and Bwaama Islands) in Lake Bunyonyi. It has 67 villages with 4175 households (UBOS, 2017).

All the 5 parishes were selected for the study since population data for infants and young children below the age of 24 months was not available at the sub county. A list of all villages in each parish was obtained from the sub county office with the help of a community development officer.

Six villages were selected within each parish the villages were selected using simple random sampling method, (by writing down the villages names on pieces of paper and then randomly selecting one from each parish).

At village level simple random sampling was used also to select household. AVHT was used to generate a list of all the households with children aged below 24 months in each village and also worked as a guide to move with the researcher within the village.

An identification number was assigned to each household. The household with the number selected would thus become the starting point for the survey in that village. This would go on until all the 36 households with breastfeeding children were identified from that village with the aid of AVHT.

3.5.1 Inclusion criteria

All mothers/caregivers of infants and young children aged 0-24 months of age who were living in households.

3.5.2 Exclusion criteria

All mothers/caregivers of infants and young children aged 0-24 months who were living in households but were sick, and could not respond to the questionnaire and all caregivers/ mothers with children above 24 months of age.

3.6 Methods of data collection

The researcher used different methods in collecting data. These were:

3.6.1. Qualitative

3.6.1.1 In-depth interview

Simple random sampling of all households within the cluster with children aged below 24 months was done. Household heads were grouped into the age groups of a 5-year interval starting from age 18 and interviewed.

These were utilized to give opportunities to respondents to describe freely their life experiences about IYCF. This was chosen because it provided firsthand information from experiences of respondents. Audio tape recorders were used and thereafter data were transcribed. The interview lasted for one to two hours. The study used this tool in order to exhaust the information from

respondents about complementary feeding practices. Interviews were conducted with people who had consented only.

3.6.1.2. Focus group discussions

A total of 6 FGDs of 8 members each were selected with assistance from village guides. For homogeneity, consideration was made of the age group of an interval of ten years and social economic status of members. These were selected from five villages within the six parishes which comprise Kitumba Sub county. Participants were purposively and conveniently selected. Six focus group discussions were held in the six villages (Richardson & Rabbiee, 2001).

3.6.2. Quantitative

3.6.2.0. Survey questionnaire

Questionnaires were set for one hundred random sampled respondents within cluster size (sampled size) appended (ii). This was chosen because it made respondents feel at ease and give private responses. This instrument was given to about 26% of the sampled respondents and sought knowledge about complementary feeding practices.

3.7. Observation checklists

Simple checklists with items to focus on were used during interviews and discussions. These kept the study focused and enhanced the originality of the study findings. A checklist sheet was developed for the daily update and check during the process of the study.

3.8. Ethical consideration

An ethical clearance was obtained from the Institutional Review Board after approval of the proposal. An official letter from the Department of Community Health, Kabale University, was obtained and given the sub county chief. After getting permission from the sub county officer with the guidance of the community development officer, respective leaders of villages where data was to be collected were contacted for arrangement of interviews. A village health team member guided the researcher through the villages.

Informed verbal consent was obtained from study participants who were requested to voluntarily participate. The purpose of the study was explained to them in their local language, and they were

also told that they had the right to refuse or withdraw from the study prior to the commencement of data collection.

Confidentiality of the information collected was assured for each participant and for this matter no name of the participants or their identifying information was attached to their answers.

All codes and data were kept in a locker room and password protected computer. Access was limited to the researcher working directly on the research.

Rapport was emphatically established delicately considering respect and attention to the discomfort of the respondents.

3.9. Quality control

Research tools were pre-tested before data was collected to ensure that they captured the intended information.

Rapport was established with every contact to ensure that participants were free and at ease in giving responses.

Checklists were used to help the researcher keep on track in utilizing the research tools (Appendix vi).

Reviews were conducted daily on the questionnaires and interview guides so as to record any incidents which occurred during data collection.

Proper identification of respondents was done to ensure that missing data was got via telephone conversation or an extra appointment. Revisits were made at the convenient times for the respondents in case of incomplete face-to-face interviews.

3.10 Data management and analysis

For quantitative data, frequencies were determined for understanding the characteristics of study participants and practices of complementary feeding. Chi square tests followed by binary logistic regression were conducted to determine the factors associated with complementary feeding. A multivariate model was then conducted to control for confounding. Only factors with p values less than 0.05 were considered.

For qualitative data, transcripts were reviewed and findings were used to support the findings from quantitative data.

CHAPTER FOUR:

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

This chapter spells out what was observed in the field and the responses from the study participants. This study was conducted on households that had children in the age group of six to 24 months. For each household, both parents participated in the study to explain their experiences regarding complementary feeding.

4.1 Socio-demographic characteristics of Study participants

A total of 216 participants with children aged below 24 months participated in this study. More than half (68%) of the male participants were aged 30 years and older, while more of the female participants (32%) were below the age of 38 years. More than half of the participants (58% males had secondary education and 42% females) were above secondary education level of qualification. Farming was reported as the main source of income by 42% of the participants, followed by 22% of casual labour and 18% of part-time employment. The highest percentage of the participants 38% were Catholics as compared to 32% of Anglicans, 12% Muslims and 18% other religions like the born-again.

The study sampled parishes with the participants: Lake Bunyonyi 18%, Mwendo 19%, Bukoora, 19%, Kitumba 22%, Bushuro 21%, and targeted both the father and mother of children aged 6 to 24 months from each household. A total of 52 households participated in this study, seven of which were female-headed households. Almost a quarter (23%) of the households had a large household size with eight to ten occupants.

Table:1 Demographic characteristics of participants

Characteristic	Male (n = 86)		Female (n = 130)		Total(n=216)	
	n	%	n	%	N	%
Age (years)						
18-28	11	13	38	29	49	23
29-38	20	23	43	33	63	29
39-48	26	30	26	20	52	24
49-58	19	22	12	09	31	14
59-68	10	11	11	08	21	10
Religion						
Catholic	31	36	51	39	82	38
Anglican	27	31	43	33	70	32
Moslem	10	12	16	12	26	12
Others	18	20	20	15	38	18
Education level						
None	08	08	13	10	21	10
Primary	28	33	37	28	65	30
Secondary	38	44	48	37	86	40
Tertiary	12	14	32	25	44	20
Occupation						
Farming	23	27	68	52	91	42
Business	19	22	20	15	39	18
Casual labor	30	35	18	14	48	22
Fulltime employment	14	16	24	18	38	18
Location						
Lake Bunyonyi	11	13	28	22	39	18
Mwendo	17	20	25	19	42	19
Bukoora	18	21	24	18	42	19

Kitumba	21	24	26	20	47	22
Bushuro	19	22	27	21	46	21

Source; field, 2018

4.2 Prevalence of complementary feeding of children aged up to 24 months in Kitumba Sub County

Findings indicate that of the 216 respondents recruited, 126(58.3%) participated in complementary feeding of the children aged 0-24 months. Major responsibility was by mothers as indicated in *Figure 1*.

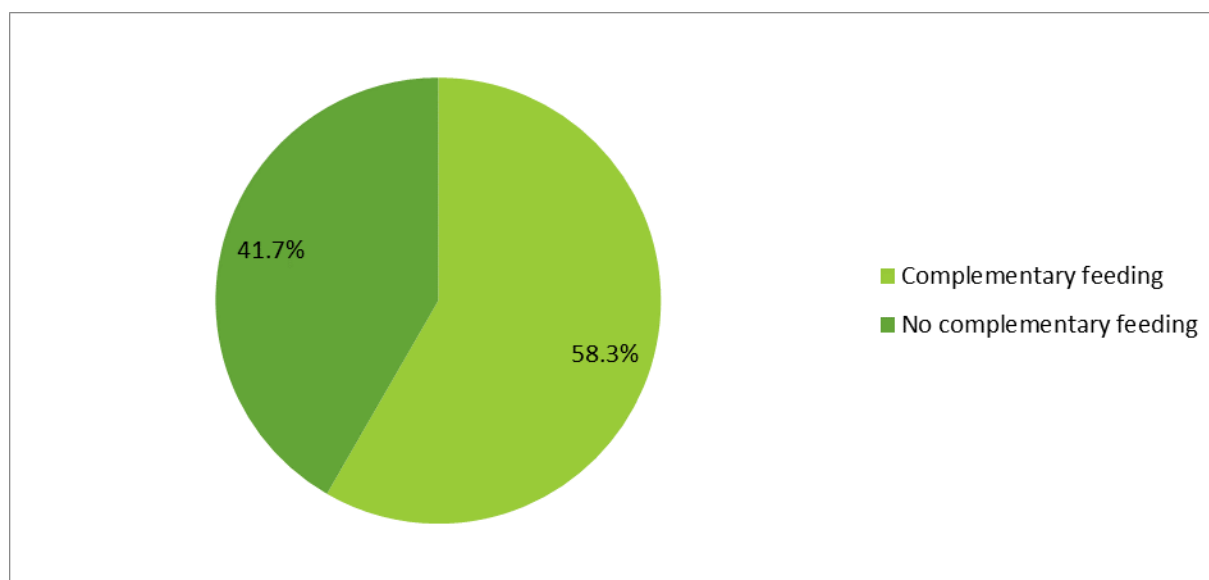


Figure:1. Prevalence of complementary feeding of children up to the age of 24 months in Kitumba Sub county

4.3 Parental practices on complementary feeding practices in Kitumba Sub county

From the table above, 58% of all participants reported that both parents were involved in child feeding. Participants 92% perceived child feeding as the mother's responsibility, while 02% of the males reported that child feeding was a shared responsibility between the mother and father.

A higher proportion of female than male participants (61%) reported that mothers made the decisions on when to introduce complementary feeding and 50% reported mothers had responsibility to introduce complementary feeding.

A significant higher proportion of female participants (92%) than males (60%) mentioned that no food has ever been given to the baby when the mother was not available as such a situation had never existed before. Sixty per cent (60%) of participants reported that they provided porridge to the children at age 6 months; 60% of participants reported that they encouraged children to eat by giving them attention. Sorghum porridge was reported by the majority (33%) of participants followed by paste and vegetables (31%). Twenty-six per cent (26%) of the participants reported the consumption of potatoes.

Table 2: Parental practices on complementary feeding practices in Kitumba Sub county

Variable	Male participants (n = 86)		Female participants (n = 130)		Total participation n=216	
	N	%	N	%	N	%
Do you participate in feeding the child?						
Yes	28	33	98	75	126	58
No	58	67	32	25	90	42
Whose responsibility is it to feed the child						
Father	-	-	-	-	-	-
Mother	78	91	121	93	199	92
Both	08	09	09	07	17	08
Who makes decision on when to introduce CF?						
Father	18	21	00	00	18	08
Mother	40	47	92	71	132	61
Both	20	23	18	14	38	18
Others	08	09	20	15	28	13
Whose responsibility is it to makes decisions on when to introduce CF?						
Father	16	19	08	06	24	10
Mother	31	36	76	58	107	50

Both	25	29	26	20	51	24
Others	14	16	20	15	34	16
Do you buy food specifically for the child						
Yes	48	56	57	44	105	49
No	38	44	73	56	111	51
How do you encourage a child to eat?						
Giving child attention	45	52	103	79	148	69
Saying encouraging words	-	-	07	05	07	03
Drawing child's attention	-	-	09	07	09	04
Forcing child to eat	-	-	06	05	06	02
Was the baby breastfed during the day?						
Yes	52	60	120	92	172	80
No	34	40	10	08	44	20
Other ways in which the baby consumed milk						
Only breastfed	78	90	126	97	204	94
Bottle	05	09	00	00	05	02
Cup	03	03	04	03	07	03
What food is baby given when mother is not around?						
Other liquids	-	-	-	-	-	-
Porridge	-	-	-	-	-	-
Cow's milk	-	-	-	-	-	-
Never happened before	86	100	130	100	216	100

Source valentine 2018

4.4.Socio-demographic Factors influencing complementary feeding practices in Kitumba Sub county in Kabale district

Findings in Table 4 show that at the 95% confidence level and 5% margin of error all the socio-demographic factors were associated with adequate complementary feeding ($p < 0.05$) except religious affiliation ($p > 0.05$). All the factors were then entered into a multivariate model to adjust for confounding factors to adequate complementary feeding. Findings are presented in Table 5 appended V. Results in Table 5 show that in presence of other factors, age and education of caretakers remained the socio-demographic factors significantly associated with complementary feeding practices of children aged 0–24 months in Kitumba Sub county in Kabale district. Specifically, caretakers with 29-38 years were 5 times more likely to practice complementary feeding practices (aOR = 5.01, 95%CI: 2.84-11.72, $p = 0.001$) compared to their counterparts with 18-28 years of age. However, caretakers with either 49-58 years (aOR = 0.08, 95%CI: 0.07-0.20, $p = 0.000$ or 59–68 years (aOR = 0.12, 95%CI: 0.04-0.50, $p = 0.001$) were less likely to practice complementary feeding practices compared to their counterparts with ages of 18-28 years.

Additionally, caretakers with secondary level of education were less likely to practice complementary feeding practices (aOR = 0.40, 95%CI: 0.18-0.93, $p = 0.000$) compared to their counterparts without formal education. However, caretakers with tertiary education showed a significant higher likelihood of practicing complementary feeding practices (aOR = 1.65, 95%CI: 1.78-3.39, $p = 0.033$) compared to their counterparts without formal education.

Table 3: Socio-demographic Factors influencing complementary feeding practices in Kitumba Sub county in Kabale district

Factor	Complementary feeding		COR(95%CI)	P	aOR(95%CI)	P
Religion	Yes	No				
Catholic	47(57.32)	35(42.68)	Reference			
Anglican	44(62.86)	26(37.14)	1.26(0.66-2.42)	0.488	1.24(0.96-2.64)	0.489
Others	12(46.15)	14(53.85)	0.64(0.26-1.55)	0.321	0.74(0.33-1.65)	0.132

Age in years						
18-28	33(67.35)	16(32.65)	1.00			
29-38	57(90.48)	6(9.52)	4.61(1.64-12.92)	0.004	5.01(2.84-11.72)	0.001
39-48	30(57.69)	22(42.31)	0.66(0.29-1.49)	0.318	0.74(0.29-3.67)	0.221
49-58	2(6.45)	29(93.55)	0.03(0.01-0.16)	0.000	0.08(0.07-0.20)	0.000
59-68	4(19.05)	17(80.95)	0.11(0.03-0.40)	0.001	0.12(0.04-0.50)	0.001
education						
None	20(95.24)	1(4.76)	Reference			
Primary	49(75.38)	16(24.62)	0.23(0.10-0.51)	0.000	0.41(0.18-0.93)	0.000
Secondary	31(36.05)	55(63.95)	1.55(0.71-3.40)	0.273	1.65(1.78-3.39)	0.033
Tertiary	26(59.09)	18(40.91)	0.07(0.00-0.59)	0.014	0.15(0.10-0.79)	0.025
Location						
Lake Bunyonyi	30(76.92)	9(23.08)	Reference			
Mwendo	31(73.81)	11(26.19)	0.85(0.31-2.33)	0.746	0.75(0.36-2.34)	0.756
Bukoora	30(71.43)	12(28.57)	0.75(0.28-2.04)	0.573	0.78(0.30-2.09)	0.473
Kitumba	22(46.81)	25(53.19)	0.26(0.10-0.68)	0.005	0.52(0.20-1.57)	0.056
Bushuro	13(28.26)	33(71.74)	0.12(0.04-0.32)	0.000	0.23(0.11-1.35)	0.055
Occupations						
Farming	60(65.93)	31(34.07)	Reference			
Business	12(30.77)	27(69.23)	0.23(0.10-0.51)	0.000	0.23(0.10-0.51)	0.053
Casual labor	36(75.00)	12(25.00)	1.55(0.71-3.40)	0.273	1.55(0.71-3.40)	0.673
Fulltime employment	18(47.37)	20(52.63)	0.47(0.22-1.00)	0.051	0.47(0.22-1.00)	0.072

This was supported by information from the FGDs arranged into emerging themes of: feeding frequency, age to start complementary foods, variety and type of foods fed to infants, and exclusive breastfeeding.

(a) Perceptions towards amount of food fed (meal frequency)

Most of the participants mentioned that their children eat three times in a day. They said that this was enough for the child. However, some participants said they fed the child according to their appetite and amount of food available.

“Three times is enough for a seven month child. He/she will get breast milk and some porridge in addition to the food.” FGD 1p3

“Four times is not be enough, because whenever my child gets hungry,I give food.”

“As a parent when I see that a child is hungry I have to give food, I ensure that the child has eaten and drunk something”.FGD2,p8

“We have to ensure that there is food at home for the child always.”

“We give the children porridge in the morning, at midday and porridge again in the evening.”

- (FGDs)2, p2

(b) Perceptions towards the age at which to start complementary foods

The majority of participants indicated that the age at which complementary foods were given to infants was determined by many factors and was not specific to six months old.

“We give children porridge at an early stage if they keep crying after breastfeeding.”

“When the child continues to cry after breastfeeding, we introduce light porridge because we feel breast milk alone is not enough.”

“Porridge is sometimes introduced early because we want the child to be full and stop crying for breast milk so that we can concentrate on work.” FGD4, p2

(c)(i)Perceptions towards the variety of food given to infants

The majority of participants indicated that infants are not provided with variety of foods. They indicated plant foods should be served with minimal animal foods.

“We normally use maize flour or sorghum (unfermented red) flour when making child’s porridge and sometimes mix in milk if you have some money.”-

“Other foods like mashed beans and green vegetables are added gradually.” – FGDS

(ii) Participants instead indicated that mothers needed a variety of foods so as to produce breast milk for the infants

“Mothers need to eat adequately to breastfeed effectively.”

“We need to eat a lot to increase our milk supply.”

“Mothers have to increase normal food intake to have an increased milk production.” FGD5, p1

(d) Perceptions towards exclusive breastfeeding

“Mothers are supposed to breastfeed the child frequently.”

“When the child cries for breast milk, mothers should be there and breastfeed...” FGD5, p3

“Breastfeeding has to be frequently even when the baby is not crying for milk.” FGD5, p7

“When the child sleeps for long without breastfeeding, we wake them up and breastfeed them.”

“When the mother is relaxed and has no stress, breastfeeding is easier and there is increased breast milk production.” FGD4, p5

“Most mothers exclusively breastfeed their children except when they were sick. 61% of children under the age of six months were reported to have been exclusively breastfed in the first six months” FGD3p4. However, the trend for exclusive breastfeeding decreased with age because of need for work. “At six month most infants are left to baby seaters at home, their sisters and brothers and sometimes when there is an old person like a grand mother or father at home.” FGD5, p8.

CHAPTER FIVE:

DISCUSSION OF FINDINGS

This study examined the prevalence of complementary feeding, its practices and socio-demographic factors associated with it among children aged 0-24 months in which it was found out only 126(58%) participated in commentary feeding of the children. This finding shows a much lower prevalence compared to that from WHO (2016) in which a small proportion (1.9%) of mothers reported not to have breastfed their children. The UDHS (2016) and Vaahtera et al. (2001) also reported similar trends. The reasons given for not breastfeeding were mothers' sickness and busy work schedule. Besides, WHO (2003) recommends: two to three times meal frequencies per day for breastfed infants six to eight months of age; three to four times for breastfed children nine to 24 months of age and four times (including milk feeds) for non-breastfed infants and children of six to 24 months of age. It was noted that the participants with children aged >12 to 24 months) reported to have given their children food below the recommended meal frequency. Only 30% of the male participants and 69% of the female participants with children aged six to 12 months reported giving their children food according to the recommended meal frequency.

More than half of the participants reported that it was the mother's responsibility to ensure that a child was exclusively breastfed and introducing complementary feeding and deciding when to introduce complementary foods. This is in agreement with the responsibilities that are culturally assigned to mothers in most African cultures (Thuita, 2013). Other studies have also reported that child feeding and ensuring optimal nutrition for babies as an essential part of motherhood (Tully & Ball, 2014). Participants among the mothers reported that fathers had the role of encouraging them to feed the children. This corroborates with what has been reported in other studies that fathers influence the mothers' decision to initiate and continue breastfeeding, and introduce complementary foods (Bich, Hoa & Målqvist, 2014; Mueffelmann et al, 2014).

In this study, it was also revealed that culture was the main factor which motivated parents' participation in Complementary Feeding. The roles that they had were culturally assigned. It played a significant role in determining how parents are involved in most African cultures (Thuita, 2013; Mukuria et al., 2012). Culture has also been reported in other studies as the influencing factor on the roles of men and women in CF and child care in general (Daglas & Antoniou, 2012; Tully & Ball, 2014). Similar findings have been made in a study in

Mozambique (Audet et al., 2015). For successful CF, mothers need the support of other family members, friends and the community (Subbiah & Jeganathan, 2012). This was found in a study in Ohio that reported that friends' and family's opposition to breastfeeding had a negative impact in a mother's decision to breastfeed (Raffle et al., 2011). Here both parents ensured that the household got food (Amenyah & Puplampu, 2013). Culture determines the involvement of both parents in CF in African countries (Thuita, 2013). Participants in this study mentioned that fathers failed to provide physical support to mothers because the activities associated with child feeding were considered feminine in their culture. This finding is in agreement with Ganle & Dery (2015 and Audet et al. (2015). In these studies, fathers who helped wives with household tasks were considered to be dominated by their wives and this resulted in low father involvement.

This study established that age and education level influenced complementary feeding of the children aged 0-24 months in Kitumba Sub county. This finding agrees with those of previous studies in which younger parents and caregivers with high levels of education have a better understanding of the importance of child feeding and therefore are more likely to be involved in IYCF than parents with low levels of education (Hasnain et al., 2013; Katepa et al., 2015). However, these findings are further supported by a study done by Andre (2015) and Betoko (2013) who revealed that the age of parents had an influence on how they are involved in CF. For breastfeeding, older mothers have been reported to have more positive attitudes and to initiate and maintain breastfeeding longer than younger mothers.

CHAPTER SIX:

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

The following conclusions have been drawn from the study:

The prevalence of complementary feeding of children aged below 24 months in Kitumba Sub county was generally lower as evidenced by the findings.

The majority age at which complementary foods were given to infants depended on varying factors and was not specific to six months of age.

Infants did not receive a variety of foods especially the animal product foods. This suggests an unbalanced diet.

Although WHO recommends the minimum of two to three meals, which was mentioned, it should be supplemented by responsive feeding which was not mentioned because children would be left at home to older brothers and sisters (baby-sitters) who were also children and or older people like grandmothers and fathers for whom it was not a primary role to attend to infants. Even though participants said they fed the child according to their appetite and amount of food available, this does not define feeding to some set standards.

However, mothers were the main decision makers on CF although purchasing food for the child was a father's responsibility a role believed to be culturally assigned.

Age and highest education level of caretakers were the major socio-demographic predictors of complementary feeding.

6.2 Recommendations

From the findings, it is recommended that health workers need to sensitize communities comprehensively through nutrition education programmes on child development, including the meaning and the recommended time for introducing complementary feeding; the importance of introducing complementary feeding at six months, the importance of providing a diversified diet to infants and young children using locally available foods like enriched porridge

vegetables and animal foods like meat and eggs throughout the year.

There is need to provide appropriate IYCF information using diversified channels, including social media; involvement of local leaders in reinforcing appropriate IYCF practices and through nutrition education programmes, in which practical cooking demonstrations can be made following the WHO guidelines on appropriate IYCF with parents, caregivers and grandmothers. Through community sensitization, programmes should be adopted in which extension workers should make home visits to households with infants and young children to educate parents on how to select, prepare and preserve nutritious foods, as well as the food combinations for optimal IYCF.

Since age and highest education level of caretakers were the major predictors of complementary feeding, there is need to increase enrolment and reduce school dropouts. Laws should be put in place restricting children from dropping out of schools. Schools should work hand in hand with parents and community leaders to discourage children from dropping out of schools.

Data for this study was collected during the post-harvest season, which was a period when food was in plenty. There is need to carry out a similar study in a period when food is scarce (in the months of March and April as well) so that a better picture of the IYCF practices within Kitumba sub county is presented.

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Appendix I: Respondent's Consent Form

COMPLEMENTARY FEEDING PRACTICES AMONG BREAST FEEDING MOTHERS IN KITUMBA SUBCOUNTY –KABALE DISTRICT.

Good morning/Good afternoon.

My name is Birungi valentine I am a student at Kabale University studying public health. I am conducting a research on complementary feeding among breastfeeding mothers in Kitumbasubcountyinkabale district

In order to improve on the health of children, I am required to obtain information on how children are fed in the first years of their life in Kabale district.

I therefore, invite you to take part in this study.

If you accept, you will be required to sign on this paper or put a thumb and answer questions which will be administered by me .This information is very important to us and will result into interventions to improve health care of children in kabale district and Uganda in general.

You can choose to accept or not to accept to participate in the interview

I am going to ask you some questions that are not difficult to answer. Your name will not be written in this form and will never be used in connection with any of the information you will give me. You do not have to answer any question that you do not want to answer and you may end this interview at any time you want to.

However, your honest answers to these questions will help us in identifying the magnitude to which parents /care givers are knowledgeable and practice rightly in providing the nutritional needs of our children.. I would appreciate your help in responding to these interview questions. The interview will take about 30 minutes of your time.

So Would you be willing to participate [indicate by ticking the appropriate responses]?

Yes-----, no-----

Signature of the respondent interviewer

Time the interview started.....time it ended.....

Appendix II: Interview Guide
COMPLEMENTARY FEEDING PRACTICES AMONG BREAST FEEDING
MOTHERS IN KITUMBA SUBCOUNTY –KABALE DISTRICT.

Good morning/ Good afternoon Sir/Madam

My name is **BIRUNGI VALENTINE** and I am a student of Kabale University studying public health . I am about to complete my course and as a requirement, I am here to carry out a research entitled “complementary feeding practices among breastfeeding mothers of children aged 6 to 23months,and the associated factors influencing involvement in IYCF in Kabale District”.

I request you to kindly answer a few questions on this subject and the information you will give will be treated with high confidentiality.

You are free to ask me any question about this study.

Now do you accept to participate in this study?

If yes, Interview the respondents

If no, terminate the interview.

Questionnaire for the study on complementary feeding practices and associated factors among mothers of children aged 6–23 months in KitumbaSub County-Kabale district.

1. SERIAL no of respondent.....
2. Location of the interview place
3. Sub county /Division.....
4. Parish/Ward.....

General demographic characteristics

1 Age of respondent in years

(a)18-24

(b) 25-30

(c) 30-35

(d) 36-40

(e) 41-55

(f) 56-60

(g) 61-66

(h) 66 and above

2. Highest level of education

(a) Never been to school

(b) Primary level

(c) Secondary level

(d) Tertiary level

3. Gender/Sex

(a) Male

(b) Female

4. Religion

(a) Catholic

(b) Anglican

(c) Muslim

(d) Others-specify

5 Number of children in the house hold.....

Aged below the age of 5 years.....

Questionnaire for key informants.

Indicators of complementary feeding.

1. What are the main problems affecting complementary feeding children in this area?
2. Would you say complementary feeding children get adequate food they need in their homes? If not what is the main reason?
3. What foods do you think are available to children to eat from day one to 24 months? Could you highlight on some of these foods?
4. How many times do you think complementary feeding children should be fed in a day?(probe for different ages)
5. Do you know exclusive breastfeeding? What is it?
6. Until what age do you think a child should be fed on nothing more than breast milk?
7. Do you think breast milk is the only food recommended for infants up to six months old? Why?
8. What are the benefits for a baby if he or she receives only breast milk during the first six months of life?
9. At what age is it recommended that a mother should stop breastfeeding?
10. At what age should babies start eating foods in addition to breast milk?
11. Of what importance is it to give foods in addition to breast milk to babies from the age you have stated above?
12. 14 Do you think exclusively breastfeeding the baby for six months is good? Yes/No. Why?
13. Do you think it is good for mothers to breastfeed a baby on demand, when the baby feels like wanting food? Yes/No. Why?
14. Do you think it is difficult for mothers to feed babies on demand? Yes/No why do you think so?

Practices

1. Do you participate in feeding the child? If no, why? If yes how?
2. Whose responsibility is it to feed the child?
3. Who makes the decisions on when to introduce complementary feeding?
4. Whose responsibility is it to make decisions on when to introduce complementary feeding?
5. Do you buy food specifically for the child?
6. Whose responsibility is it to buy food for the child?

7. Whose responsibility is it to make decisions on buying food for the child? Who actually buys the food for your child?
8. What responsibilities do parents have in infant and young child feeding?
9. Where do you think the parents get information on child breast feeding from?
10. What do you think are the responsibilities that you as parents have to ensure proper complementary feeding?
11. What do you think should be done to ensure optimum complementary feeding?

D. Factors associated with complementary feeding and IYCF

1. What do you think are the factors that affect parents' involvement in complementary feeding and infant and young child feeding?
2. Could there be cultural factors which affect mothers' participation in child complementary feeding?
3. How do you think these factors affect their participation in child complementary breastfeeding?
4. What do you think are some of the economic factors that affect parents' participation?
5. as mothers in child complementary feeding?
6. How do you think these factors affect their participation in child complementary feeding?
7. What do you think are some of the personal factors that affect parents' participation as mothers in child complementary feeding?
8. What do you think are some of the religious factors that affect parents' participation?
9. as mothers in child complementary feeding?
10. How do you think these factors affect their participation in child breastfeeding?
11. What factors related to the health system (including health workers) do you think affect your participation as mothers in child complementary feeding?
12. How do these factors affect parents' participation in child complementary feeding?
13. What other factors do you think affect parents participation in child Complementary feeding?
14. How can the factors hindering the involvement of fathers in infant and young child feeding can be overcome?
15. How would you encourage the participation of parents and caregivers in IYCF?
16. What do you think can be done to increase their participation in IYCF?

17. How do you as a local leader/Health worker encourage the participation of the mothers, fathers and caregivers in infant and young child feeding?
18. What do you think can be done to increase the participation on infant and young child feeding?

Thanks a lot for your time.

Appendix III: Focus Group Discussion Guide
COMPLEMENTARY FEEDING PRACTICES AMONG BREAST FEEDING
MOTHERS IN KITUMBA SUBCOUNTY –KABALE DISTRICT.

Date;

District;

Sub County;

Village;

Place of Discussion;

Moderator/ Recorder;

Language(s);

Start Time

End Time

Target Group 08

Number of Participants

Age group;

Introduction:

I am from Kabale University conducting a study on knowledge attitude and practices of parents/care givers of the children below the age of five years on the infant and young children

feeding in Kabale district.(Then invite the people to introduce themselves and thank them for the introduction

“The purpose of this exercise is to investigate complementary feeding practices among breastfeeding mothers of children aged up to 24months,and the associated factors influencing involvement in IYCF in the house holds of Kitumba sub county Kabale district. “Feel free to discuss among yourselves and ask for clarification where necessary. All the information is strictly confidential and all answers you will provide are correct. You are requested to speak loud enough to ensure that everyone listens to your contribution. Please note that the findings for the discussion will be used for study purposes only.

Thank you for making the time to come for this discussion.

Questions for group discussion.

- a. What are the main problems affecting complementary feeding among breastfeeding mothers of children aged 0 to 24months, in this area?
 - b. Would you say children get adequate food they need in their homes? If not what is the main reason?
 - c. What foods do you think are availed to children to eat from day one to 24 months? Could you highlight on some of these foods?
 - d. How many times do you think they should eat in a day?(probe for different ages)
 - e. When a child is born what is the first food he/ she should receive?
 - f. How long should a new born baby take to receive this first food after birth?
2. 7.What is exclusive breastfeeding?
 3. 8.Until what age do you think a child should be fed on nothing more than breast milk?
 4. 9. Do you think breast milk is the only food recommended for infants up to six months old? Why?
 5. 10.What are the benefits for a baby if he or she receives only breast milk during the first six months of life?
 6. 11.At what age is it recommended that a mother should stop breastfeeding?
 7. 12.At what age should babies start eating foods in addition to breast milk?

8. 13. Of what importance is it to give foods in addition to breast milk to babies from the age you have stated above?
9. 14 Do you think exclusively breastfeeding the baby for six months is good? Yes/No. Why
10. Do you think it is good for mothers to breastfeed a baby on demand, when the baby feels like wanting food? Yes/No. Why?
11. Do you think it is difficult for mothers to breastfeed babies on demand? Yes/No. Why do you think so?

Practices

1. Do you participate in feeding the child? If not, why? If yes how?
2. Whose responsibility is it to feed the child?
3. Who makes the decisions on when to introduce complementary feeding?
4. Whose responsibility is it to make decisions on when to introduce complementary feeding?
5. Do you buy food specifically for the child?
6. Whose responsibility is it to buy food for the child?
7. Do you take part in making decisions to the buying of food for your child?
8. If No why do you not take part in making decisions to buy food for the child?
9. Whose responsibility is it to make decisions on buying food for the child? Who actually buys the food for your child?
10. What practices do exist in the community by parents that hinder proper nutrition for children under the age of five years.
11. What responsibilities do parents have in infant and young child feeding?
12. Where do you think the care givers get information on child breast feeding from?
13. What do you think are the responsibilities that you as care givers have to ensure proper complementary feeding?
14. What do you think should be done to ensure optimum complementary feeding?
15. Factors influencing parents involvement in the IYCF
16. What do you think are the factors that affect parents' involvement in infant and youngchild feeding?

17. What do you think are some of the cultural factors that affect their participation in child breastfeeding?
18. How do you think these factors affect their participation in child breastfeeding?
19. What do you think are some of the economic factors that affect parents participation as mothers in child breastfeeding?
20. How do you think these factors affect their participation in child breastfeeding?
21. What do you think are some of the intrapersonal factors that affect parents participation as mothers in child breastfeeding?
22. What do you think are some of the religious factors that affect parents participation as mothers in child breastfeeding?
23. How do you think these factors affect their participation in child breastfeeding?
24. What factors related to the health system (including health workers) do you think affect your participation as mothers in child feeding?
25. How do these factors affect parents' participation in child breastfeeding and complementary feeding?
26. What other factors do you think affect parents' participation in child breastfeeding?
27. How do you think the factors hindering the involvement of fathers in infant and young child feeding can be overcome?

Appendix IV: Questionnaire for Female Participants with Breastfeeding Children
COMPLEMENTARY FEEDING PRACTICES AMONG BREAST FEEDING
MOTHERS IN KITUMBA SUBCOUNTY –KABALE DISTRICT.

- a. How many children do you have in your home (household) who are below the age of 23 months?
- b. What is your relationship with the children?
- c. What is your main source of income?
- d. Was the baby breast fed yesterday during the day? Yes/No /Don't know /No answer
- e. Was the baby breast fed yesterday during the night?yes/nohow many times?
- f. Sometimes babies are fed breast milk in different ways, did the child consume breast

2. milk in any of the ways other than suckling? If yes which ways?
 - a. When you are not at home or cannot feed the baby yourself, who does it?
 - b. If you are not available to feed the baby, what type of food is the baby fed on?
 - c. Did the child have any liquids yesterday during the day or at night?
 - d. Whose responsibility is it to make decisions on exclusive breastfeeding the child?
 - e. Until what age is it recommended that a mother should stop breastfeeding?
 - f. At what age should babies start eating foods in addition to breast milk?
 - g. Why is it important to give foods in addition to breast milk to babies from the age of six months?
3. What foods should a mother add to breast milk to feed the baby?
 - a. Which foods or types of food can be added to the food you have talked about to make it more Nutritious?
 - b. How do you encourage your child to eat?
 - c. What do you think are some of the cultural factors that affect mothers' participation in child breastfeeding?
4. How do these factors affect the mothers 'participation?
5. What other factors do you think affect mothers' participation in child feeding?
6. How do they affect the mothers' participation in child feeding?
7. What factors related to the health system do you think affect mothers' participation in child feeding?
8. How do these factors affect mothers' participation in child breastfeeding?
9. Do you know anything about complementary feeding? If yes, what is it and when is it supposed to start.?
10. Do the factors mentioned above affect mothers' participation in child complementary feeding? How?
11. What additional responsibilities do you think can be played by mothers to ensure proper child feeding?

Thank you so much for your time.

Appendix V: Responses on indicators of complementary feeding in Kitumba Kabale district.

Variable	Male participants (n = 86)		Female participants (n =130)		Total participation n=216	
	N	%	N	%	N	%
Main problems affecting CFB						
Lack of nutritional knowledge	19	22	24	18	43	20
Unhygienic practices	12	14	09	07	21	10
Maids management	06	07	19	15	25	12
Poor quality foods	13	15	10	08	23	11
In access to food quality	11	13	16	12	27	12
Poverty of parents	15	17	20	15	35	16
Reduced breastfeeding	03	03	11	08	14	06
Domestic violence	07	08	21	16	28	13
A number of years children should be BF						
1.yrs	-	-	-	-	-	-
1.5yrs	-	-	-	-	-	-
2yrs	80	93	128	98	208	96
3years	06	07	02	02	08	04
Have you ever heard of EBF?						
Yes	86	100	130	100	216	100
No	-	-	-	-	-	-
What is the meaning of EBF?						

Infant feeds on breast milk only without any other liquids	53	62	111	86	164	76
Infant frequently breastfeeds	26	30	13	10	39	18
Doesn't know	09	10	05	04	14	06
What is the recommended period for EBF?						
Birth to six months	51	59	104	81	155	72
<six months	-	-	-	-	-	-
>six months	28	32	23	17	51	24
Doesn't know	07	08	03	02	10	04
Why is EBF recommended for the first six months?						
Breast milk provides all the nutrients a baby requires						
Child is still young to be fed other solids	60	70	104	80	164	76
foods	20	23	23	18	43	20
Doesn't know	06	07	03	02	09	04
How often is it recommended to BF a child?						
On demand						
whenever baby wants	82	95	130	100	212	98
Doesn't know	08	05	-	-	04	02
Is it of any benefits for the baby to be EBF?						

Yes	52	60	120	92	172	80
No	-	-	-	-	-	-
Doesn't know	34	40	10	08	44	20
Is it difficult to feed/breast feed the baby on demand?						
No	53	61	121	93	174	81
Yes	05	06	-	-	05	02
Don't know	14	16	20	15	37	16
When should CF be introduced?						
6 months						
< 6 months	28	33	17	13	45	21
>6 months	58	67	113	87	171	79
Do CFC get adequate food?						
Yes	42	49	83	64	125	58
No	08	09	03	02	11	05
Don't know	36	42	44	34	80	37
What is the importance of introducing CF at 6 months?						
Breast milk not sufficient	40	47	110	85	150	69
Baby's intestines not fully developed	14	16	07	05	21	10
Don't know	05	06	-	-	05	02
Child grows healthy	27	31	13	10	40	19
How many times are CFC fed in a day						
Once						

Twice						
Thrice						
Fourfold	07	08	-	-	07	03
Fivefold	26	30	43	33	69	32
Unknown	53	62	87	67	140	65
Foods available for CFC.						
Porridge(sorghum,maize)	28	33	44	33	72	33
Paste(Beans, peas vegetables)	26	30	41	32	67	31
Soup(meat,fish,eggs)	10	12	11	08	21	10
Baby formula	00	00	00	00	00	00
Potatoes(Sweet and Irish)	22	26	34	26	56	26
Why is it difficult to feed babies on demand						
Lack of food	18	21	26	20	44	20
Busy schedule	23	27	59	45	82	38
Lack of nutritional knowledge	34	40	15	12	49	23
Carelessness of parents	08	09	10	08	18	08
Sickness of mothers in case of BF	03	03	20	15	23	11

Source; Field valentine 2018

Appendix VI: Data Collection Checklist

Date.....

Village.....

Parish.....

No.		Target	Done	Not done	Reason	Remark/ way forward
1	Number of respondents					
2	Interviews.					
3	Questionnaire.					
4	Discussions conducted.					

Notes ...

Appendix VII: Introductory Letter

KABALE

P.O Box 317
Kabale - Uganda
Email: info@kab.ac.ug
admissions@kab.ac.ug



UNIVERSITY

Tel: 256-392-848355/04864-26463
Mob: 256-782860259
Fax: 256-4864-22803
Website: www.kab.ac.ug

DIRECTORATE OF POSTGRADUATE TRAINING

August 27th 2018

To whom it may concern

*Received and accepted
to carry out the study assigned
by the CSO 14/07/2018*

This is to certify that *Mr. Birungi BK Valentine* Reg. No. 16/A/MPH/103/W
is a postgraduate student of Kabale University studying for a Masters Degree of *Masters of
Public Health* in the department of *Community Health*.

He has successfully defended his Research Proposal for a study entitled,

*"complementary feeding practices and associated Factors among
Mothers of Children Aged 6-24 Months in Kitumba Sub-county
Kabale District"*

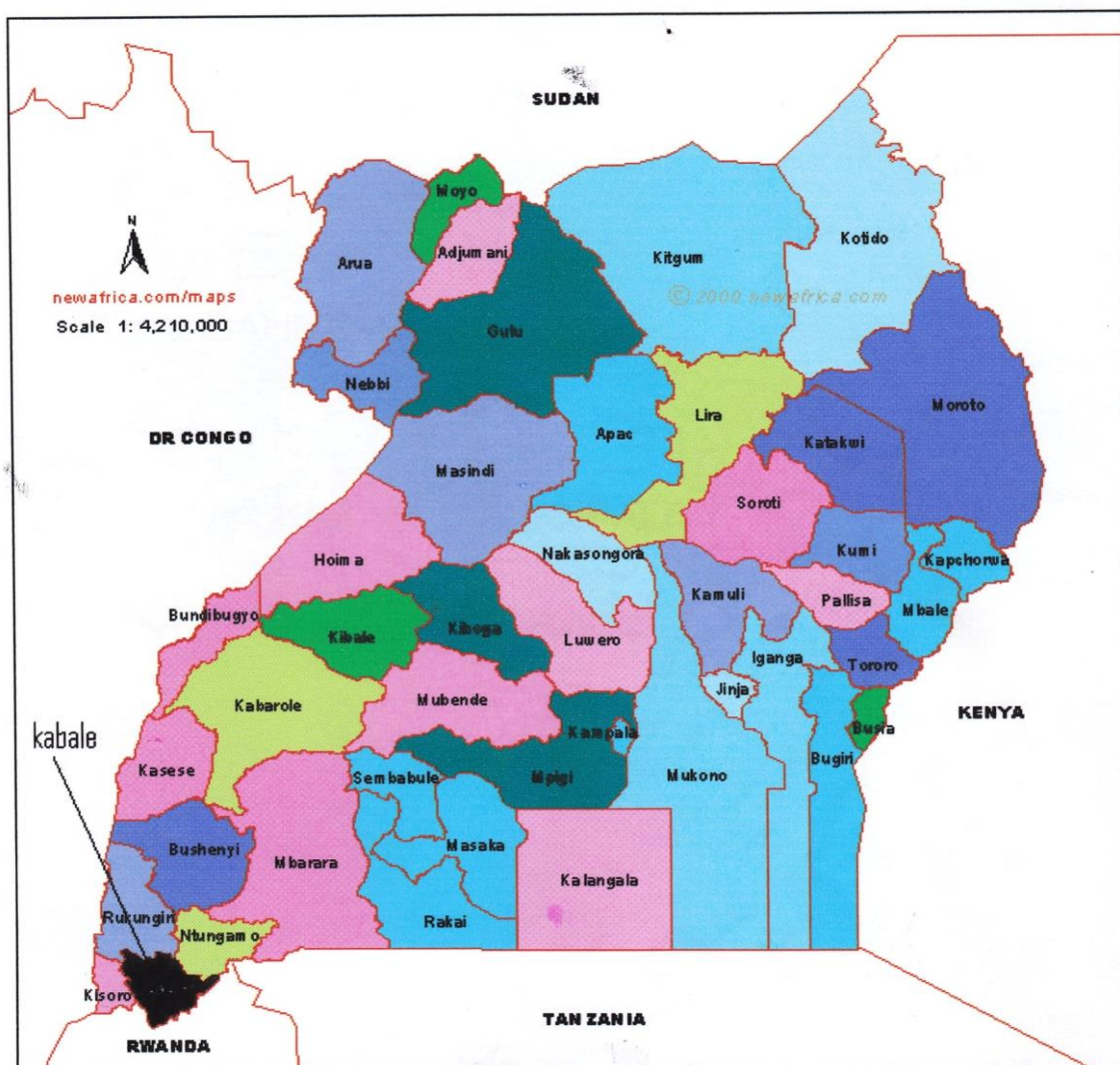
The student is now ready for field work to collect data for his study. Please give the student any assistance you can to enable him accomplish the task.

Thanking you for your assistance,

Yours sincerely

Prof.. Ayiga Natal
Ag. DIRECTOR, POSTGRADUATE TRAINING

Appendix VIII: Map of Uganda Showing the Study Area



KEY: Indicates Kabale district (study district)