

KNOWLEDGE ATTITUDE AND PRACTICES OF MOTHERS ON MANAGEMENT OF
MALNUTRITION AMONG CHILDREN UNDER FIVE YEARS IN BUGONGI TOWN
COUNCIL,
SHEEMA DISTRICT

BY

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DEDICATION

This dissertation report is dedicated to the most important people in my life. These include my daughters Divine and Desire, my son Dalton and my mum. You accepted to miss my care and presence but above all you prayed for me. May the good Lord reward you abundantly.

DECLARATION

I Mwiine Dickens Richard declare that I have read and understood rules of Kabale University on plagiarism that this dissertation report is my original work and has never been submitted to any institution or any university for any academic award.

Signature:--~...

Date: 27/01/2021

MWIINE DICKENS RICHARD

APPROVAL

This dissertation report has been developed by Mr. Mwiine Dickens Richard under my supervision and is now ready for submission to Kabale University, faculty of medicine for assessment.

Date 29/01/2021

Signature~

MR. BY AMUKAMA TOPHER

SUPERVISOR

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OPERATIONAL DEFINITIONS

Attitude:	This is a settled way of thinking or feeling about something.
Food:	It is any substance that can be eaten, metabolized by the body to release energy and build tissue.
Knowledge:	Refers to a theoretical or practical understanding of a subject.
Main nutrition:	This is a state that results from the body not getting enough or excessive or unbalanced diet or inability to absorb food.
Morbidity:	Refers to the condition of being diseased.
Morbidity rate:	This is the frequency or proportion with which a disease appears in a population.
Mortality:	Refers to the state of being subject to death.
Mortality rate:	This is a measure of the number of deaths
Obesity:	Refers to the state of being grossly fat or overweight.
Practice:	This is the act of rehearsing a behavior over and over, or engaging in an activity again and again, for the purpose of improving or mastering it.
Under-fives:	Children who have not yet celebrated their fifth birthday or have not yet exceeded sixty months in life.

LIST OF ABBREVIATIONS

AIDS	Acquired Immuno Deficiency Syndrome
ARIs	Acute Respiratory Infections
BMI	Body Mass Index
DALYs	Disability-adjusted life years
EBF	Exclusive Breast Feeding For
Eg	Example
FANTA2	Food and Nutrition Technical Assistance II
HIV HMIS	Human Immune Virus
IYCF	Health Management Information System
MDGS	Infant Young Children Feeding Millennium
OPD	Development Goals Outpatient Department
OWE SES	Operation Wealth Creation
SPSS	Social Economic Status
SUN	Statistical Package for Social Sciences
TASO	Scaling Up Nutrition
UBOS	The Aids Support Organization
UCSS	Uganda Bureau of Standards
UDHS	Uganda Child Survival Strategy
UFNP	Uganda Demographic and Health Survey
UNAP	Uganda Food and Nutrition Policy Uganda
UNICEF	Nutrition Action Plan
UMNAP	United Nations International Children Education Fund
VHT	Uganda Multisectoral Nutrition Action Plan
WHO	Village Health Team
	World Health Organization

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ABSTRACT

Malnutrition remains a major cause of morbidity and mortality among children under five years especially in developing countries. Malnutrition is responsible for more ill health than any other cause good health is not possible without good nutrition. Uganda has introduced several programs like OWC to increase food production and reduce hunger and Sheema district too has got its share. This has led to considerable progress in terms of economic growth and reduction of poverty. However, the prevalence of stunting in Sheema has remained high despite its agricultural potential and significant agricultural exports. This study aimed at assessing the knowledge, attitude and practices of mothers on management of malnutrition among Children under- five years in Bugongi Town Council, Sheema district. It went further to determine the knowledge of mothers on causes, signs and symptoms of malnutrition among children under five years and factors that influence mothers attitude towards nutrition of their children. It also looked at common practices of mothers that hinder normal growth and promote malnutrition among children under-five years. The study employed a cross sectional descriptive research technique where by both qualitative and quantitative methodologies were used. A total of 120 respondents were selected for the study using simple random sampling techniques from all wards of Bugongi Town council. The study findings revealed that the biggest proportion of the sampled mothers had attained some level of education. From the general understanding levels of education have effects on the care a mother gives a child. However, it was noticed that majority of mothers had completed primary level (72.5%) and very few (5%) had attained tertiary education (Diploma, Degree and above) yet the knowledge attained at that level on nutrition may not be sufficient. Largest proportion of mothers (90%) was aware that breast milk is the main source of food for babies. However 10% mentioned artificial food as the best food for under 6 months babies. This reveals information gap which must be fulfilled by health workers through conducting regular health education talks. The study further revealed that majority of respondents do not mix food for babies before serving. This act predisposes infants to malnutrition as they lack some essential nutrients. This study recommends that in formulation of breastfeeding policies by government, culture should be mainstreamed. It was found out to play an important role as at when one should initiate breastfeeding and when other foods are introduced. Secondly, health professionals need to conduct regular health education to educate masses as when complementary feeding should be initiated.

CHAPTER ONE

1.0 Introduction.

Malnutrition remains a major cause of *morbidity* and mortality among children under five years especially in developing countries. It is also responsible for more ill health than any other cause - good health is not possible without good nutrition (WHO, 2018). All forms of malnutrition are associated with various forms of ill health and higher levels of mortality. Under nutrition explains around 45% of deaths among children under five, mainly in low and middle-income countries.

Despite Uganda's agricultural potential and significant agricultural exports, its food insecurity levels remain classified as 'serious' by the 2018 Global Hunger Index. The high burden of wasting and stunting among children under five years of age is of great concern to policy makers and public health practitioners in Uganda (National Population and Housing Census (NPHC), 2014). The central and south west regions have the highest malnutrition levels and yet the latter is considered to be 'Uganda's food basket' with malnutrition still at a rate of 50 per cent (Published by daily monitor 13" June, 2009).

Uganda has made considerable progress in terms of economic growth and reduction of poverty and under-five mortality over the past 20 years. However, the prevalence of stunting has persisted with nominal decline over the same period and still affects one in three children. Because of high population growth in Uganda, the absolute number of children affected by stunting is actually increasing by nearly 1 % per annum. It currently stands at 2.4 million children and places the country at the rank of 14" globally.

Sheema district in particular, is one of the districts in south western Uganda that practice mixed farming. They cultivate crops and rear animals however it was ranked number two after Bushenyi in having stunted children. Bugongi Town Council inclusive is not any different and on monthly basis as per HMIS 2015 reports and onwards, it has consistently reported high prevalence of malnutrition compared to other sub counties.

1.1 Background to the Study

Malnutrition remains a major cause of morbidity and mortality among children under five years especially in developing countries. In 2016, an estimated 155 million children under the age of 5 years were suffering from stunting, while 41 million were overweight or obese. (WHO, 2017)

Around 45% of deaths among children under 5 years of age are linked to under nutrition. These mostly occur in low- and middle-income countries. At the same time, in these same countries, rates of childhood overweight and obesity are rising. Malnutrition has many different causes working at different levels. Access to water, sanitation and hygiene, income, education and quality health services are all important. A common cause across all forms of malnutrition is a suboptimal diet (including inadequate breastfeeding for babies). Poor diets are the second leading risk factor for deaths and DALYs globally, accounting for 18.8% of all deaths, of which 50% are due to cardiovascular disease. While improving diets alone is not necessarily enough to address malnutrition, it is a necessary component of reducing disability and death from malnutrition across all ages and income brackets

Conversely, as detailed in the *2017 Global Nutrition Report*, improving nutrition can have a powerful and positive multiplier effect across multiple aspects of development, including poverty, environmental sustainability, and peace and stability. As the late Kofi Annan, former UN Secretary-General, wrote in 2018, "Nutrition is one of the best drivers of development: it sparks a virtuous cycle of socioeconomic improvements, such as increasing access to education and employment." Without significant progress to end malnutrition in all its forms, countries will simply not be able to attain the Sustainable Development Goals (SDGs) set out to transform our world by 2030. Adequate nutrition is an essential prerequisite for maintaining health status. The critical role nutrition plays in health and development warrants greater commitment and investment in nutrition.

Uganda has ratified a range of international conventions and committed itself to end hunger and malnutrition (UMNAP 2017). However, malnutrition remains a serious health and welfare problem affecting the under five children to whom it contributes significantly to mortality and morbidity. According to Uganda Demographic and Health Survey of 2016, nearly four in ten Ugandan children under five years of age (38 percent) are stunted (short for their age), six percent are wasted (thin for their height), and sixteen percent are underweight (UDHS, 2016).

The consequences of malnutrition is a significant concern for policy makers in Uganda, where 22 million children under 5 years (29 percent) suffer from stunting (low height-for-age), according to the most recent Demographic and Health Survey (DHS) (UBOS and ICF 2014). Stunting is the result of growing under limited provision of food, health, and care. Malnutrition in Uganda starts at infancy and rises steeply, peaking at about two years when about 50% of toddlers are stunted and from the UDHS findings, Northern (40%) and South Western Uganda (50%) regions are more affected than other regions (UPHC, 2014).

The 1995 constitution of the Republic of Uganda pledged to ensure food and security for all Ugandans and the Uganda Nutrition Action Plan (UNAP), 2011-2016, expressly recognizes the human right to adequate food for all. Efforts are also under way to adopt a National Food and Nutrition strategy and a Food and Nutrition Act within the framework of National Development Plan.

The Uganda government has formulated food and nutrition policy which focuses on nutrition and childhood development as one of the goals with an aim of improving child health especially among those under-five years. This policy is being formulated to address nutrition priority problems with assistance from international and local agencies like UNICEF, Save the Children, Plan International and TASO. The Ugandan government has also put in place other programs which include Operation wealth program (OWC), formulation of National Nutrition Policy and many others. In addition, addressing the plight of women by strategically targeting their economic, education, and health status can improve nutrition at household level since women are the principle providers and care givers of children at this level.

Indeed the story may not be different for Sheema district and Bugongi Town Council in particular. And therefore conducting a study to better understand knowledge, attitude and practices of mothers in relation to malnutrition is paramount.

1.2 Statement of Problem

In Uganda, Nutrition and health reports have indicated that although the country is well endowed with adequate food supplies, a large proportion of children below 5 years of age are malnourished. The 2014/15 Uganda Demographic and Health Survey showed that almost half of the children below 5 years of age were stunted (45.5%) and almost one quarter were underweight

(23%). The consequences of long-term nutritional deprivation are many and complex but ultimately culminate in ill health and death. It has been reported that nearly 60% of all deaths of children below 5 years of age in Uganda are directly or indirectly attributable to malnutrition. Although the causes of malnutrition are complex and multidisciplinary, dietary and environmental factors do play a major role. It has been reported that dietary factors concerning the mother and socioeconomic/environmental factors may contribute to the risk of malnutrition in children in developing countries. However, the persistent high rates of malnutrition in children under 5 years are symptomatic of the larger problems of inadequate access to food, suboptimal feeding practices and poor health, sanitation and hygiene practices by many within the country. This has resulted into 38% suffering from chronic malnutrition (stunting), 16% underweight and 6% suffer from acute malnutrition.(UDHS, 2016)

Regions of Uganda that are most affected are Northern (40%) and South Western Uganda (50%). (NHPC, 2014).Sheema district and particularly Bugongi Town Council is not any different, malnutrition contribute around 30 % of the OPD cases at Bugongi HCIII. This has resulted into, Stunted growth, Underweight, Mortality and other nutrition disorders including physical disability. This too interferes with productive time of mothers in caring for the sick hindering the social economic growth of the community members, (HMIS 2017). What is surprising however, Sheema district and western Uganda generally, is known to be the food basket of Uganda. These communities practice both crop and animal husbandry and have got a variety of foods. It's from this background that the researcher wants to investigate knowledge, attitude and practices of mothers on management of Malnutrition of under-five children in Bugongi Town Council since mothers are the principle care givers.

1.3 Research Objectives

1.3.1 General Objective

To assess the knowledge, attitude and practices of mothers on management of malnutrition among Children under five years.

1.3.2 Specific Objectives

1. To determine the knowledge of mothers on causes, signs and symptoms of malnutrition among children under five years

2. To establish factors that influence mothers attitude towards nutrition of children under five years
3. To establish the common practices of mothers that hinder normal growth and promote malnutrition among children under five years

1.4 Research Questions

1. What is the level of knowledge of mothers on causes, signs and symptoms of malnutrition among the children under five years?
2. What factors that influence the mothers' attitude towards nutrition of children under- five years?
3. What common practices among mothers that hinder normal growth and promote malnutrition in children below five years?

1.5 Scope of the Study

The scope of the study was in three subsections that included; the content scope, geographical scope and time scope.

1.5.1 Content Scope

The study made assessment of knowledge, attitudes and Practices of mothers on management of malnutrition among Children under-five years in Bugongi Town Council, Sheema district. It also assessed the level of knowledge of care takers/mothers in identifying signs and symptoms of malnutrition. It also assessed the attitude and practices of mothers towards malnutrition.

1.5.2 Geographical Scope

The study was conducted in Bugongi Town Council, Sheema district. It's in southern part of Sheema. It borders with Sheema municipality in the North, Shuuku Town Council in the East, Rugarama and Kitagata sub counties in the South and Bushenyi district in the West. It has a population of 12,011 persons(UBOS 2014).

1.5.3 Time Scope

The study was conducted in two months that is June and July 2020. This time was enough for data collection, analysis, interpretation and presentation to the university.

1.6 Significance of the Study

- The findings of this study will contribute to the pool of knowledge regarding malnutrition in Bugongi Town Council, Sheema district.
- The recommendations in this study will help Sheema district authorities and Uganda at large to identify the knowledge gap, attitude and practices of mothers that contribute to malnutrition and design health education messages that will reduce the incidence.
- The study recommendations will be used to enlighten caregivers on the importance of proper nutrition.
- The study findings will create awareness on the causes, signs and symptoms of malnutrition among mothers.

1. 7 Conceptual Framework

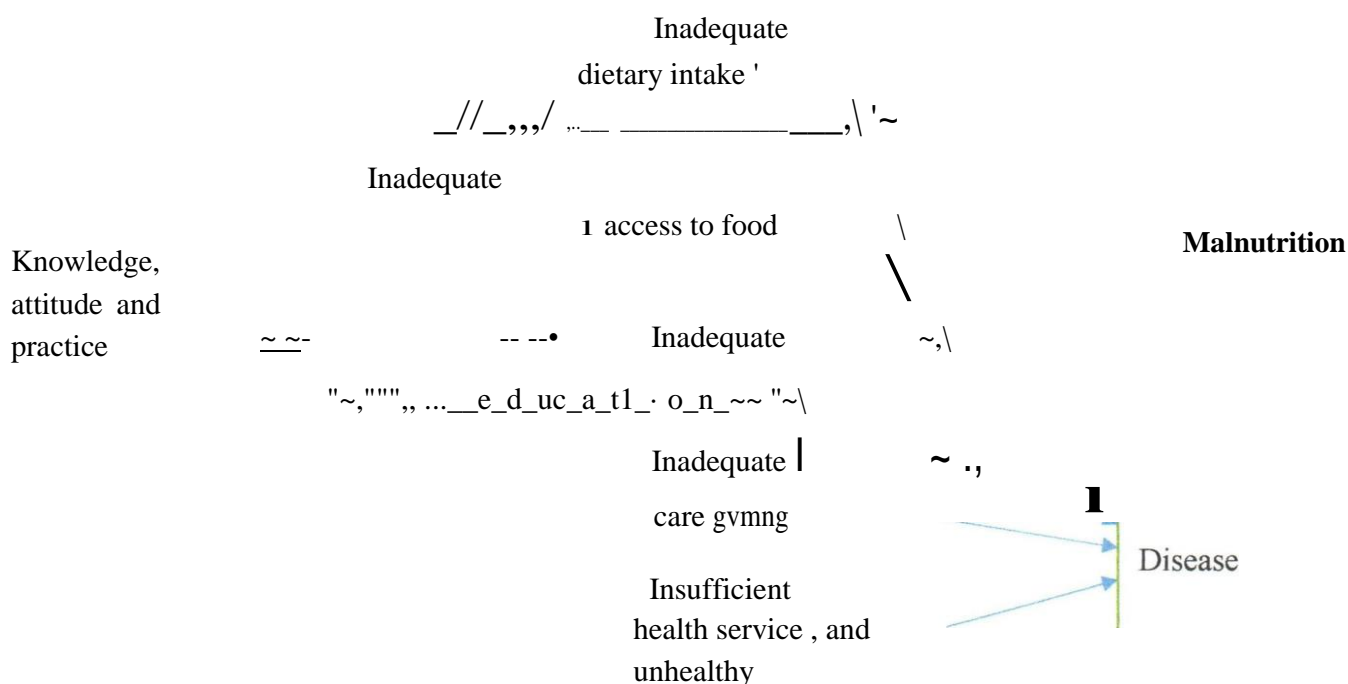


Figure 1; conceptual framework environment

The narrative

Parent's Educational Status influenced by number of years of education, literacy, cognitive performance, contact with outside world; radio and television, and Social network, each of these variables is likely to influence the parents' child-care knowledge, attitudes, and behaviors, and thus ultimately affect the child. Certain personality characteristics and attitudes of mothers influence the feeding pattern and types of food.

Traditional beliefs and practices can as well be beneficial or harmful in relation to child nutrition. The distribution of food is also important in detennining the quality and amount of food that a young child receives.

A child's growth is not affected only by the amount and type of food eaten but also by disease. Gastrointestinal infections such as diarrhea cause less food to be absorbed and can thus lead to a dramatic weight loss. A mother's health-care knowledge and practices will affect her child's health by making him more or less susceptible to diseases. For example, the practice of boiling water seems to be strong indicator of a household's health status.

CHAPTER TWO: LITERATURE REVIEW

2.0. Introduction

This chapter reviewed different studies, findings and opinions by the various people/organizations as regards to knowledge, attitudes and practices on management of malnutrition among mothers of children under 5 years of age.

2.1 Knowledge on Causes, Signs and Symptoms of Malnutrition among the Mothers Mothers are foremost providers of primary care for children. Their understanding of basic nutrition and health measures strongly influence the care they provide.

The aspect of nutrition knowledge include duration of exclusive breastfeeding, appropriate age for introducing solid foods into the child's diet and the type of solid foods to introduce, frequency of feeding, diet during illnesses and mother's perception for own child's nutrition status. Mother's practical knowledge is important for the child's nutrition outcome (*Sachs et al. 2017*).

Under nutrition, dehydration, and electrolyte abnormalities can reduce cognition, endurance, thermoregulation, overall performance, and recovery. A properly designed dietary program throughout training, competition, and the off-season should benefit and help protect both the recreational and the elite athlete. (*Thomas et al, 2018*)

Knowledge, attitudes and practices associated with infant and young child feeding forms an essential first step for any 'need-felt' for an intervention programme designed to bring about positive behavioral change in infant health. Every opportunity should be utilized to educate mothers regarding the importance and the recommended infant feeding practices. Breast-feeding has declined worldwide in recent years, as a result of urbanization, marketing of infant milk formulae and maternal employment outside the home (*Aggrawal OP et al, 2016*).

In research conducted by Evans and Popova, It was noted that that men are more likely to spend money on "antisocial" or temptation goods than on nutritious food. (*Evans &Popova,2014*).

Poor child feeding and maternal hygienic practices were identified as risk factors of under nutrition. Educating mothers/care givers on the advantages of proper child feeding and

maintaining hygienic practices at critical times is valuable in improving nutritional status (*KhanA, KhanS, et al.*2017)

Household education attainment was associated with an increased probability of being food secure. This is consistent with other studies that showed food security to be associated with the level of education (*Bashir et al.* 2014)

Education on food security is mainly through income in the urban context. Income in this case is a more proximate factor, since urban households mainly depend on out of pocket purchases for food (World Food Programme 2009; Musyoka et al. 2018).

Education is a key factor in food access, production and utilization. Moreover, education is associated with better job opportunities and provides households with the knowledge of how to meet health and nutritional needs of their families. These opportunities provided by education such as better employment imply increased disposable income for households. Thus, education was expected to exert its effect through a wealth index, which was a proxy measure for household income. Although the household wealth index mediated the effect of household education attainment, it did not eliminate it entirely. This suggests that education, irrespective of household wealth status, has an independent effect on food security in an urban poor context. The independent effects could be through other unobserved characteristics that relate to education such as household decisions and resource allocation, which in turn determine household food security.

Unlike previous studies which mostly used the education level of the household head, our measure of education was the average years of schooling which captures the human capital of a household. One issue with this approach is reverse causality whereby educational attainment within the household is also a result of household wealth and food security (*Belachew et al.* 2015).

There is abundant empirical literature on the contribution of mother's schooling to children's malnutrition or health. Most of the results were achieved applying the following methodology. First, the broad impact of mother's schooling was estimated, controlling just for exogenous factors at the level of children, households and communities. Among these factors, biologists suggest including parents' nutritional indicators: omitting this set of variables risks to lead to an overestimation of the effect of mother's education on children's nutritional status (*Barrera, 2014*).

Ghaleb, T. (2016) found that lack of education of parents is the cause of malnutrition. Mothers who stopped breastfeeding before reaching one year of age were found to be with malnourished children. It was declared that this is the main cause of malnourished and inadequate nutrient intake.

In a study conducted by Samuel in 2016 on knowledge of mothers on malnutrition, it found out that most mothers (73%) had knowledge on malnutrition, 50% had knowledge on effect of malnutrition in children with 50% of mothers having insufficient knowledge on effects of malnutrition in children. Knowledge of mothers on childhood nutrition increases with number of children and level of education. *Nkengateh Babara et al*, 2016 in his study concluded that mothers with more than one child had little more knowledge on causes and effects of malnutrition

In a study done in Kenya in Vatta province by Dr. Josephan in year 2013 showed that only 1.8% exclusively breastfeed their children for six months. The low percentage of (EBF) exclusive breastfeeding in this study was associated with lack of correct knowledge that EB milk is sufficient for first six month. Failure to practice EBF contributes to high prevalence of malnutrition. WHO & UNICEF recommend EBF for the 1st six month in life of children; supplementary breast feeding can continue up to 2 years or longer.

In a study on factors associated with malnutrition among under-five children in Bangladesh in 2014, by both bivariate and multivariate, it was found that mother's education, father's education, wealth index, mother's BMI, place of residence, division, antenatal care service during pregnancy, and birth interval were significantly associated with the nutritional status of children.

Samuel NambileCumber, Nkengateh Babara et al, 2016, conducted a study in Cameroon on knowledge of mothers on signs and symptoms. 73% intimated that malnutrition is when the child is having large head and swollen stomach, having weight loss and not having proper body nutritional requirements. This showed that majority of mothers had knowledge on signs of malnutrition.

In a study by Kanchan Mukherjee in India, 2014 revealed that knowledge levels of mothers regarding breast-feeding were mixed. Majority (88%) of the mothers were aware that only breast-feeding is required post-delivery, and duration of breast-feeding could be more than six months. there was a gap in knowledge about breast-feeding practice during infant illness. Only

9% of mothers had the correct knowledge to increase breast feeding if the infant was ill and 20% felt breast feeding should be decreased during illness of child

According to a study by Lija R Nath and C Kanniammal, 2017 on risk factors for malnutrition in children under 5 years in Luangprabang province, Laos, indicated low maternal education was main risk factor for child malnutrition in the study area. It is recommended that an improvement in societal infrastructure, better maternal education and nutrition are needed to address the child malnutrition issue.

Mothers are foremost providers of primary care for children. Their understanding of basic nutrition and health measures, strongly influence the care they provide. The aspects of nutrition knowledge include duration of EBF, appropriate age for introducing solid foods into a child's diet and the type of solid foods to introduce frequency of feeding, diet during illnesses and the mother's perception for her own child's nutritional status. Mother's practical knowledge is important for the child's nutritional outcome.

The education of women especially, has been found to play a central role in improving the health of the children. The mother's nutrition related knowledge has a strong association with children nutritional status (*Thomas and shukar, 2018*).

Breastfeeding practices remain controversial and vary considerably between educated and lowly educated mothers (*Armstrong and Anderson, 2015*). Hence, breastfeeding practices are also a key determinant of under nutrition status of children (*Acharya et al., 2016*). In a study conducted in Nepal, the maternal knowledge, attitudes, and beliefs about breastfeeding, however, still appears traditional and strongly associated with several misconceptions.

However, there is no study that has been conducted in Bugongi Town Council that has investigated mother's knowledge on causes, signs and symptoms of childhood malnutrition

2.2 Attitudes of Mothers towards Malnutrition.

Whilst some governments have started providing manufactured fortified foods to prevent and treat acute malnutrition in children, there are still critical challenges that need consideration. Food-commodities distributed may be unfamiliar and unacceptable to beneficiaries in certain contexts (*Violette et al., 2016*). The cost effectiveness of food-based approaches have also been recently questioned (*Puett et al., 2014*); although a recent study has highlighted the costs that can be saved by reformulating RUTFs (*Bahwere et al, 2014*).

A recent systematic review of 22 studies from developing countries published between 1990 and 2011 highlights a strong link between maternal autonomy and child nutritional status (*Carlson et al.*, 2014). Women with low autonomy often share characteristics that are associated with poor nutrition status in children, e.g. lower maternal age, lower socio-economic status (SES), lower levels of education, and poor nutritional status (especially low BMI, low stature and micronutrient deficiencies) (*Sethuraman et al.*, 2006).

Maternal under nutrition is of great concern in many countries, and especially so for those in emergency settings. Good maternal nutrition status is also crucial for the mothers' own ability to live a healthy life (*Ahmed et al.*, 2014).

According to *RomisaRehman, et al*, 2015, Breast-feeding should be continued even when either a mother or child is sick however most mothers tend to reduce when one or either is sick. International studies show declining trend of breast feeding as a result of urbanization and maternal employment outside the home.

Acharya et al., 2016, in study reported that mothers who have health seeking behavior, visit health institutions for the delivery of the baby and are counseled to breastfeed as soon as possible and that they should not be given anything other than breast milk for the first six months.

2.3 Practices of Mothers that hinder normal growth and promote Malnutrition.

Biza-Zepro (2015) highlighted that food consumption remains influenced by the existing sociocultural factors that affect food behavior along with customary systems of food sharing within households, cultural attitudes towards various foods, methods of food preparation and childrearing practices. Mostly in developing countries, several international organizations i.e. UNICEF, Save the Children, Feed the Future have been contributing tremendously towards changing the behavior, diet and child feeding practices of the people of Nepal, particularly in the remote parts, against traditional and cultural practices (UNICEF, 2014). For example, children are mostly fed by hand.

Simiyu, et al., (2015) in her study reveals that, while the mothers may have correct knowledge, their accompanying practices are not always appropriate. Knowledge, attitudes and cultural beliefs underlying child care practices and some traditional home care practices can delay the

seeking of medical care. Gaps between knowledge and practice in the treatment of childhood illness exist and need to be addressed in a culturally sensitive manner.

A study conducted by Bishwakarma in (2019) also points to financial aspects as sources of underfeeding. Gap analysis and the assessment of nutrition in a study by the World Bank are among the few to put forward that aspects like individual behavior are also essential factors for child malnutrition in Nepal (*Pokharel et al.*, 2014).

Maternal literacy and/or level of education are other factors significantly related to child health as measured by episodes of diarrhea, ARI, and nutritional status. Better practices are observed among mothers with higher literacy levels, translating into lower rates of infection for their respective children (*M. C Gupta et al.*, 2014).

A study done by ParamitaSengupta et al, 2015 amongst under-five children living in an urban slum of Ludhiana, showed that birth spacing of two years or above was an important predisposing factor for childhood malnutrition.

A study in rural South India found that the child's gender and socioeconomic factors were stronger risk factors for malnutrition than healthcare availability and health-care-seeking attitudes. Healthy feeding practices during child illness were few and inappropriate ones predominated. Similar findings have been reported in a study on diet beliefs during childhood illness.

In a study by KanchanMukherjee in India, 2014 indicates breast-feeding practices as a major factor in malnutrition. 74 (24.6%) mothers did not initiate breast-feeding within one hour of birth, and only 21 (7%) mothers increased breast feed frequency during illness of child.

According to (UBOS and Macro International Inc, 2014), malnutrition increases with the age of the child through the first three years of life before declining in the fourth and fifth year. The increase is especially rapid during the first two years of life, as evidenced in the rise from 13 percent among children aged 6-8 months to 45 percent among children aged 18-23 months

It is expected that parents give less attention to older children when they give birth to a new child who needs much attention and care.

Through psychosocial pathways, mothers are typically the front-line caregivers of children, playing an important role in feeding, preventing sickness and seeking health care. Healthy development

of the child is influenced by the complex interactions between the mother/carer and the child which in turn are influenced by the mother's psychological status and mental health and the environment in which she lives (WHO, 2014).

In reviewing the evidence on child nutrition, it was suggested that provision of assistance to women could free up women's time by reducing the need to pursue income-generating activities away from the household, which might have positive effects on child feeding and caring practices (*Leroy et al.*, 2018).

A cross sectional study conducted in India in 2013-14 found that there was a significant relationship between improvement in nutritional status of under five children and adoption of proper infant feeding practices. It concluded that delayed initiation of breast feeding, deprivation from colostrums and improper weaning practices are significant risk factors for malnutrition among under five children.

Early child longitudinal study-birth cohort study was done by Hetzner et al in 2019 to explore the different combinations of early feeding practices and their association with childhood illness in toddlerhood (i.e., asthma, respiratory infections, gastrointestinal infections, and ear infections). The author found that 70.0% of parents initiated breastfeeding within an hour of birth, 78.0% introduced formula and/or solid food before 6 months, 74.0% introduced solid food, and 15.0% introduced finger foods before 6 months.

According to current UN recommendations, infants should be exclusively breastfed for the first six months of life, and thereafter should receive appropriate complementary feeding with continued breastfeeding up to two years of age or beyond. However, there are a number of infants who do not enjoy the benefits of breastfeeding in the early months of life or for whom breastfeeding is not possible for various reasons or it needs interruption before the recommended duration of two years or beyond. A special group of mothers that needs particular attention is the infants of mothers who are known to be HIV positive. To reduce the risk of transmission, it is recommended that, when acceptable, feasible, affordable, sustainable and safe, these mothers give replacement feeding from birth. Otherwise, they should breastfeed exclusively and stop as soon as alternative feeding options become feasible. Another group includes those infants whose mothers have died, or who do not breastfeed for some other reasons. Recommendations for

appropriate feeding of breastfed infants from six months on wards have been summarized by Pan American health Organization (PAHO).

To reduce levels of infant malnutrition, Complementary foods need to be nutritionally adequate, safe, and appropriately fed in order to meet the young child's energy and nutrient needs. However, the practice is that most complementary foods is often fraught with problems; with foods being too dilute, not fed often enough or in too small amounts, or replacing breast milk while being of an inferior quality. Both food and feeding practices influence the quality of complementary feeding, and mothers and families need support to practice good complementary feeding. (Ram HariChagagain, 2014)

A report published by UNICEF on maternal and new born health disparities in Uganda in 2015, indicated that only 59.6% of the urban mothers initiated breastfeeding early at birth (within first six hours) compared to 51.3% of mothers from rural settings. This practice may act as a driver of malnutrition in infants.

The potential effect of mother's empowerment is important because there is a link between women's empowerment and child nutrition (*Carlson et al.*, 2014) through improving their own nutritional status as well as childcare practices (*van den Bold et al.*, 2014).

Shakya (2017) examined traditional food and health beliefs in the Nepal community. Food classification was associated with cultural practices and religious norms and values which differ from one ethnic group and religion to another. Shakya (2017) highlighted that food beliefs and practices are strongly associated with rituals and festivals and often seasons and the environment. This association goes beyond the availability and access to foods and to particular meaning and values that are traditionally constructed.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

This chapter explains the research methodology that was used during the study right way from the design, setting, population sample, variables, instruments, procedures, data management, data analysis, and ethical considerations.

3.1 Study Setting

3.2 Study Design

Across sectional descriptive study was used. The design was most appropriate because data was collected at one point in time and used descriptive statistics to interpret data. This kind of system helps to collect data from a bigger population in a short time.

3.3 Study Population

The study population comprised of mothers/care takers of children below 5 years of age in Bugongi Town council. These mothers were the target population. Uganda is a highly patriarchal society where duties of child caring are left entirely to the mother. Mothers are with their children most times especially those below five years, hence contribute much on how they feed and what they feed. Only mothers that reside in Bugongi were interviewed.

3.4 Sample size determination and Sampling Procedure

The study sample was determined using Kish and Leslie (1998) which is as follows;

$$N = \frac{ZPO}{D}$$

Where N- is the sample size

Z-The score corresponding to a 90% level of significance, which is 1.96

P-The estimated proportion of mothers who has or has had children with malnutrition in Bugongi Town Council.

d- Is the absolute permissible $\pm 8\%$ error

Thus

$$N = \frac{(1.96)^2 \times 0.05 \times 0.05}{0.08^2}$$

=150

Sampling procedure

The sampling procedure was arrived at from the population of mothers with under-fives in VHTs registers. Simple random sampling was used to select respondents/care takers from the list developed from VHT registers.

3. 5 Selection Criteria

3.5.1 Inclusion criteria

- All mothers/care takers with children below 5 years had equal chances of being randomly selected.
- The selected respondents were requested to consent before they could be asked to take part in this study.
- The respondents who can ably use Runyankole, Luganda and English were interviewed.

3.5.2 Exclusion criteria

- Mothers who had children above five years of age
- Mothers who were residents outside Bugongi Town Council
- Mothers who could not understand the questions because of limited intellectual ability or severely mentally ill
- Mothers who refused to consent
- Mothers who were not interested in participating in the study.

3.6 Definition of Variables

3.6.1 Independent variables

Independent variables in this study were **knowledge, attitude and practices of mothers on management of malnutrition in under-fives in Bugongi Town Council, Sheema district**

These are factors that influence the type of food mothers gives to their children and how often. They also influence the preparation, storage and feeding practices.

3.6.2 Dependent variables

In this study, the dependent variable was malnutrition in under-fives.

3.6.3 Demographic characteristics

Demographic characteristics that were collected in this study include age of the mother, religion, tribe of the mother, age of the child, sex of the child.

3.7.0 Study Instruments

The interviewer administered questionnaire written in simple English and translated in Runyankole as the main tool for collecting data in this descriptive study. The questions were designed to find information about demographic characteristics, signs and symptoms of malnutrition, community beliefs related to child feeding, different modalities that are used to treat malnutrition in community.

3.7.1 Pretesting and reliability of data

The participants of this study were mothers/care takers of children below five years. The questionnaire was tested prior to collection day on the same category of people in an area with the same characteristics. About five questionnaires were administered to five respondents of the same characteristics.

Questions that looked ambiguous and irrelevant were revised in the final questionnaires. The questionnaires were interpreted, analyzed for completeness, accuracy, and precision.

3.8 Data Collection Procedure

I first thought clearance from the authorities in Bugongi Town Council before I proceeded to collect data. Using VHT'S previous quarter reports, I developed a database of mothers with children below five years. Simple random selection was done to select participants. Participants were found in their homes, purpose of study explained to them and given consent forms to assent; and questionnaire administered by the interviewer who is the researcher. Questionnaires were in Runyankole and clarification was given to participants where necessary. Each questionnaire was checked for completeness before leaving the respondent.

3.9 Data Management Analysis

Data was cleaned and edited as soon as the questionnaire administered to each participant was complete. Each questionnaire was given a unique code to prevent incidences of omission and double entry in analysis. Data was analyzed using the statistical package for social sciences (SPSS). Data was stored in computer whose password is only known to the researcher.

3.10. Ethical Consideration

The study was reviewed by the department of Health Sciences- Kabale University to ensure it complies with University guidelines. Privacy and confidentiality of respondents was maintained by using codes on questionnaires not including their names and keeping information in a computer that is only accessed by the researcher. Before getting any information from any respondent, they were told the purpose of the study and asked if they were willing to participate voluntarily. A respondent would be told that she was free to continue with the study or discontinue at any time she feels like. Consent was sought and the respondents were requested to sign consent form before participating in the study. Respondents were given equal treatment whether they decide to participate or not.

3.11 Quality Control

The quality of the study was ensured by the following

- The questionnaire was checked for completeness before the researcher left the respondent
- The questionnaire was pre-tested on the persons of the similar characteristics to the study population to check if they understand the questions. There after questions that looked ambiguous were adjusted accordingly.
- Questions were made clear, precise as possible to limit errors in the study.
- Questionnaires were set in the local language to remove language barrier
- All questionnaires were coded with identifiable serial numbers to avoid loss of data and confusion.
- Questionnaires were kept safe in sealed envelope and locked to ensure proper storage.

3.12 Study Limitations

- Covid-19 pandemic made collection of data tiresome as some transport systems were barred and even curfew restrictions.
- Mothers with children who are above five years during the study were left out and yet may had had good experience on malnutrition.
- The resources available for this research were limited and hence limited data collection.

CHAPTER 4: FINDINGS OF THE STUDY

4.1. Introduction

This chapter presents the quantitative and qualitative study findings of an assessment of knowledge, attitudes and practices of mothers on management of malnutrition among children less than five years in Bugongi Town Council, Sheema district.

4.2. Socio-demographic Characteristics of respondents.

Respondents were mothers with children below five years of age. Majority of respondents 60.8% were between the age of 21 and 30 years. Respondents between age of 31 and 40 were 30.2% of the total. The least were respondents between age of 11 and 20 making 5%.

Variable	Frequency (n)	Percentage (%)
11-20	6	5
21-30	73	60.8
31-40	41	34.2
	120	100

Table 1: Socio-demographic Characteristics of participants

Age of the respondents

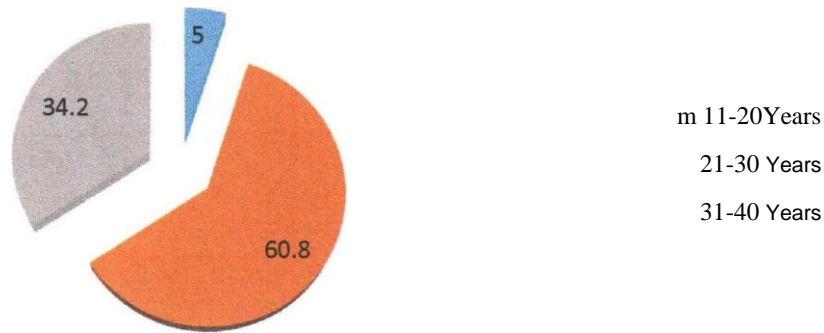


Figure 1:4 pie chart indicating the age of respondents

Education of the respondents

Respondents' educational background was assessed. From the data, the majority (72.5%) attained only primary education, followed by secondary with 20.8%. Only 5% attained tertiary education and 1.7% never went to school.

variable	frequency (n)	Percentage (%)
Primary	87	72.5
Secondary	25	20.8
Tertiary	6	5
Never went to school	2	1.7
Total	120	100

Table 2: Shows education of respondents

Education Levels of the respondents

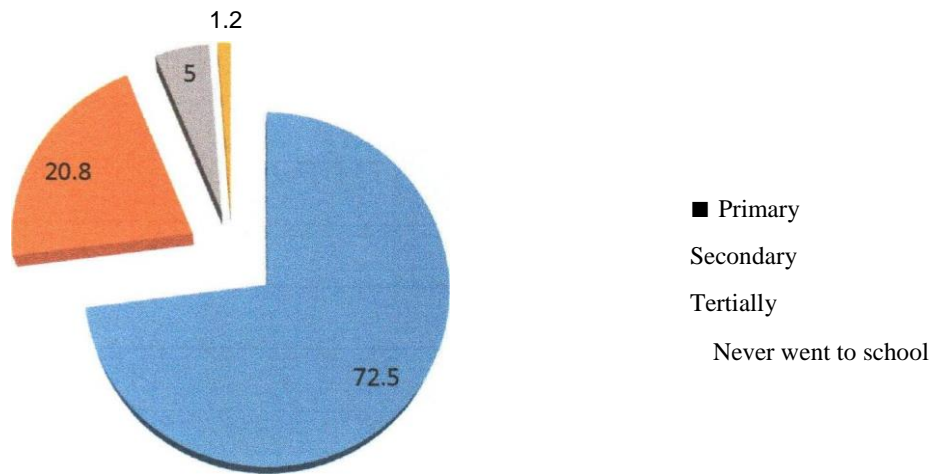


Figure 2: A pie chart showing educational levels of respondents

Income of the respondents.

The majority of respondents (93.4%) earn less than 50,000 shillings a month. 5% earn between 50,000-200,000 and the least 1.6 % respondents earn between 210,000-500,000 shillings.

Income	frequency	Percent(%)
50,000 below	112	93.4
51,000-200,000	6	5
210,000-500,000	2	1.6
	120	100

Table 3: Shows income of the respondents

Income of the respondents

n 50,000 below 51,000-200,000 M 210,000-500,000

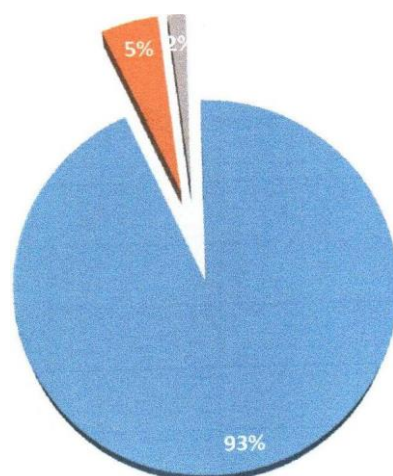


Figure 3: A pie chart showing income of the respondents

Categories of Occupation of the respondents

Majority of mothers (92.5%) interviewed, entirely are house wives. Only 5% of the respondents are in self-employment while 2.5% are working in private organizations. None of the interviewed respondent is in formal employment.

Occupation	frequency	Percent (%)
House wife	111	92.5
Self-employment	6	5
Private organizations	3	2.5
	120	100

Table 4: shows the occupation of respondents

Occupation of the respondents

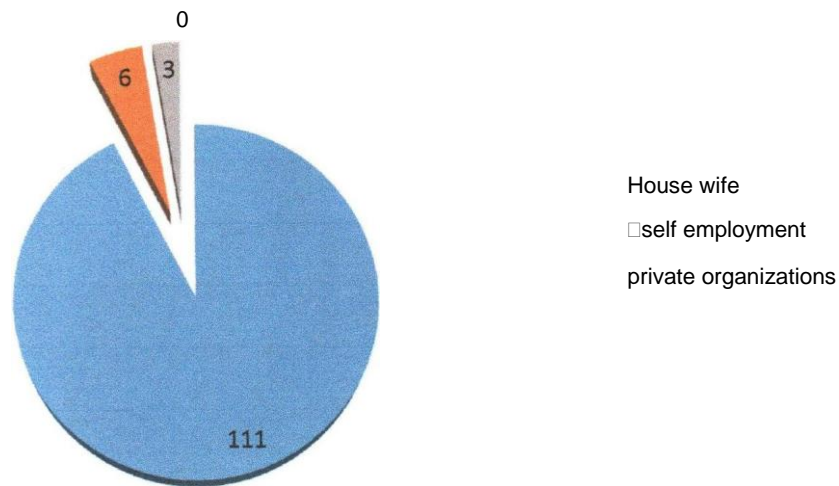


Figure 4: A pie chart indicating occupation categories of respondents

Distance moved by mothers to the nearest Health Center

Distance covered by respondents to access health center was assessed. Majority of respondents (92.5%) are within the radius of 2-5km from the nearby health center. And 5.8% of the respondents walk a distance ranging from 0.5 to 1 km to the health unit. The least respondents (1.7%) are within the radius of 0.5km to the health unit.

Distance to Health unit	Frequency	Percent(%)
0.5KM	2	1.7
0.5-1KM	7	5.8
2-5KM	111	92.5
	120	100

Table 5: shows distance moved by respondents to health center

Distance to Health Center

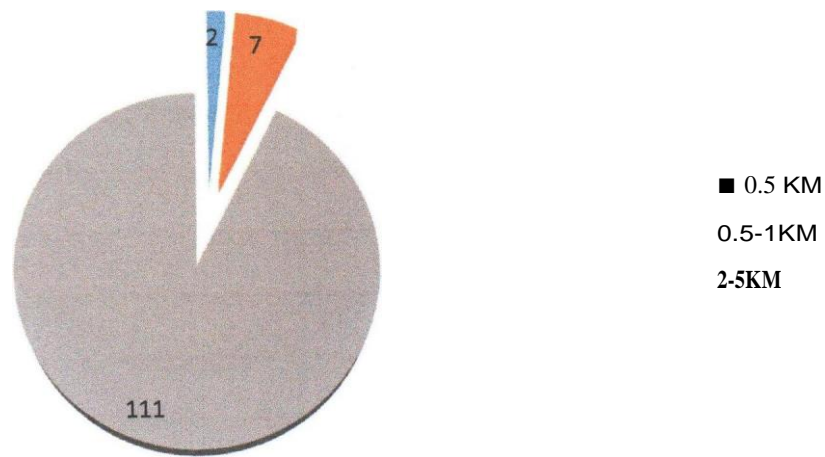


Figure 5: A pie chart indicating distance covered by respondents to nearest health center

Sources of Water for Domestic Use for the respondents

Respondents were interviewed on where they collect water for domestic use. The majority of respondents (59.1%) access water for domestic use from piped water (tap stands). Only 32.5% collect water from open wells and the least (8.4%) collect water from the borehole.

Water for use	Frequency	Percent(%)
Borehole	10	8.4
Tap	71	59.1
Open well	39	32.5
	120	100

Table 6: shows where respondents draw water for domestic use

Water Sources for the respondents

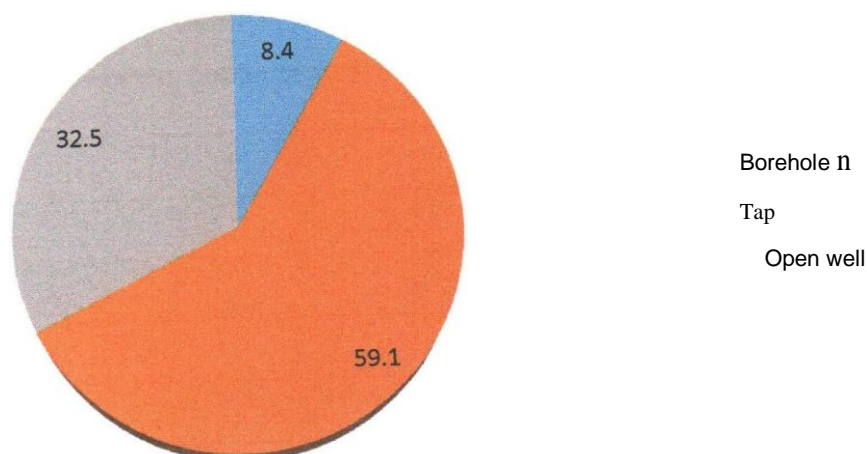


Figure 6: A pie chart showing water sources where respondents draw water

And respondents were also interviewed on the average distance to water sources. Findings indicate that majority (69.1%) access water from within 0.5 Km. 27.5% of the respondents access water between a distance of 0.5-1Km and the least (3.4%) access water within a distance of 1-5Km.

Distance to water source	Frequency	Percent (%)
Below0.5 Km	83	69.1
0.5-1Km	33	27.5
1-5Km	4	3.4
	120	100

Table 7: shows distance covered by respondents to access Water Sources

The researcher tried to establish knowledge of mothers on causes, signs and symptoms of malnutrition among children under-five years, diseases caused by malnutrition, main source of food for babies and breast feeding.

Causes of malnutrition in children under- five years in Bugongi Town Council.

Respondents were asked to mention main causes of malnutrition. Majority of respondents (51.7%) said food which is not balanced, 35.7% said its insufficient food while 35% talked of diseases.8.3% mentioned other conditions while congenital and witchcraft had 5.8% of respondents each.

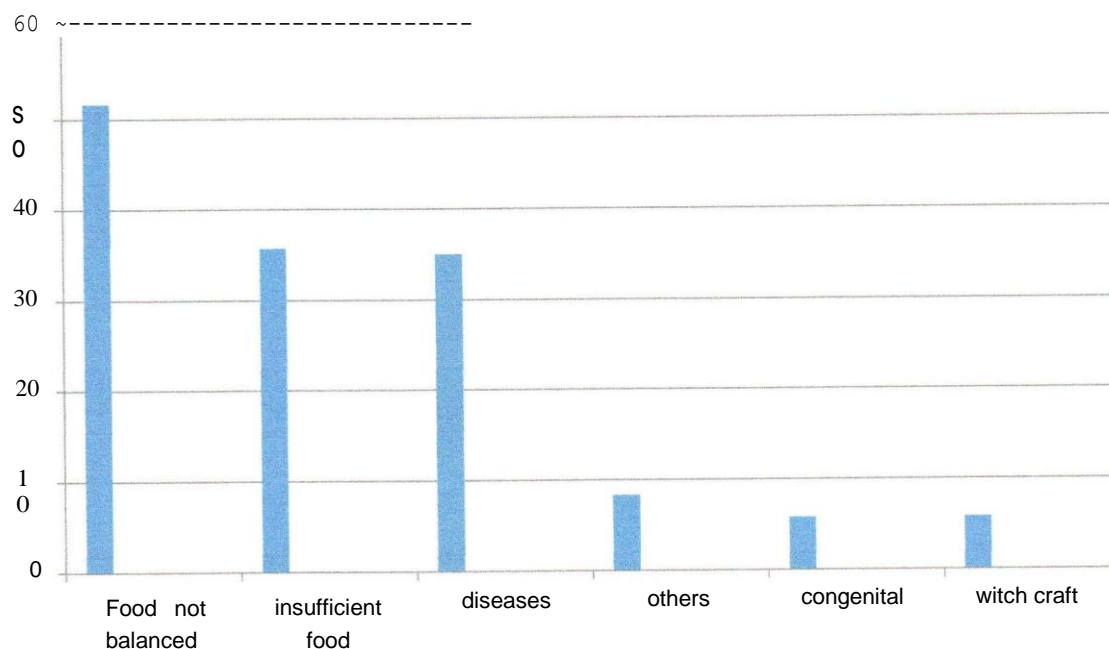


Figure 7:A bar graph showing causes of malnutrition as mentioned by respondents

Signs and Symptoms of Malnutrition

Majority 50.8% of the respondents talked of pale hair as a major sign, 36.7% talked of distended abdomen. 32.5% of respondents talked pale skin as sign of malnutrition while the least (15%) of the respondents mentioned swollen feet.

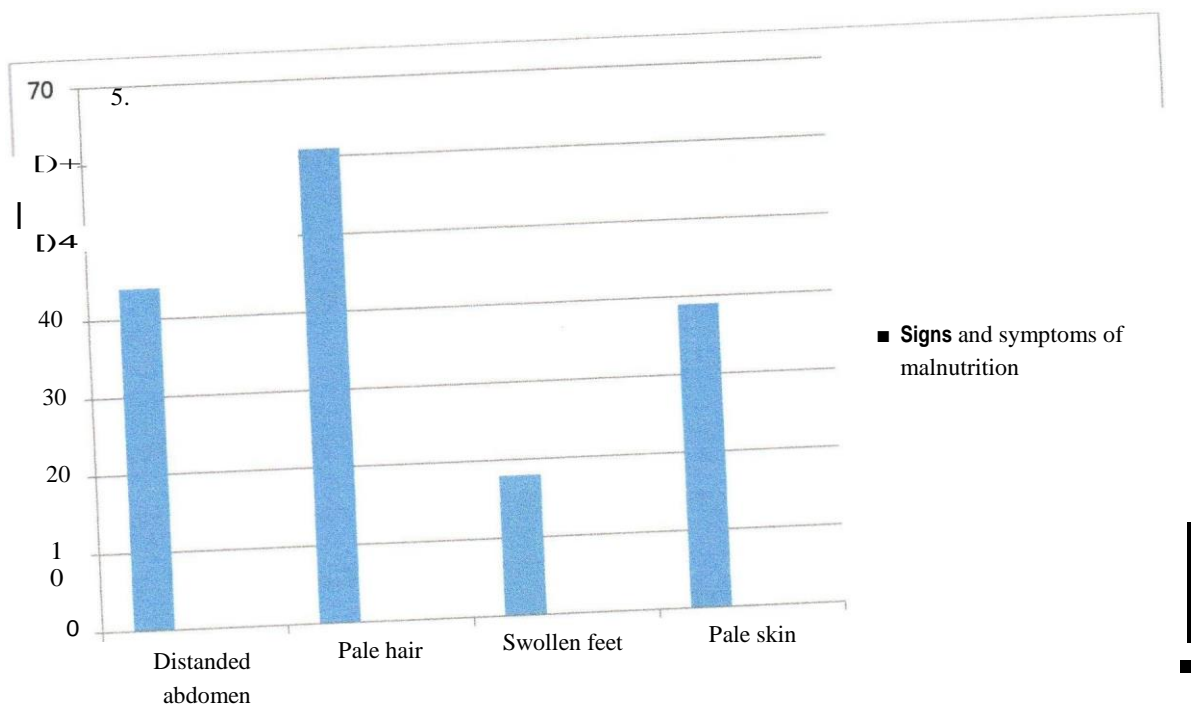


Figure 8:A bar graph indicating signs and symptoms of malnutrition

Diseases caused by excess nutrients

About 50% (60/120) of the respondents said they didn't know any disease caused by excess nutrients in the body. Only 42.5% (51/120) of the respondents mentioned obesity, 4.2% (5/120) blood pressure) and 2.5% (3/120) diabetes respectively.

Main source of food for babies below 6months

Major source of food.

Respondents were asked to indicate the major source of food for infants below 6 months. 90%

(108/120) of the respondents revealed that breast milk was the major source of food for infants below 6 months. 9% (12/120) mentioned that artificial foods.

The researcher went ahead to establish if respondents had knowledge on the benefits of breast feeding. Majority of respondents (95%) intimated that it helps the child to grow well, while 57.5% talked of increasing immunity among children. Only 5% of respondents knew that breast feeding prevents mother from breast cancer and the least (2.5%) knew that breast feeding improves the intelligence of the baby.

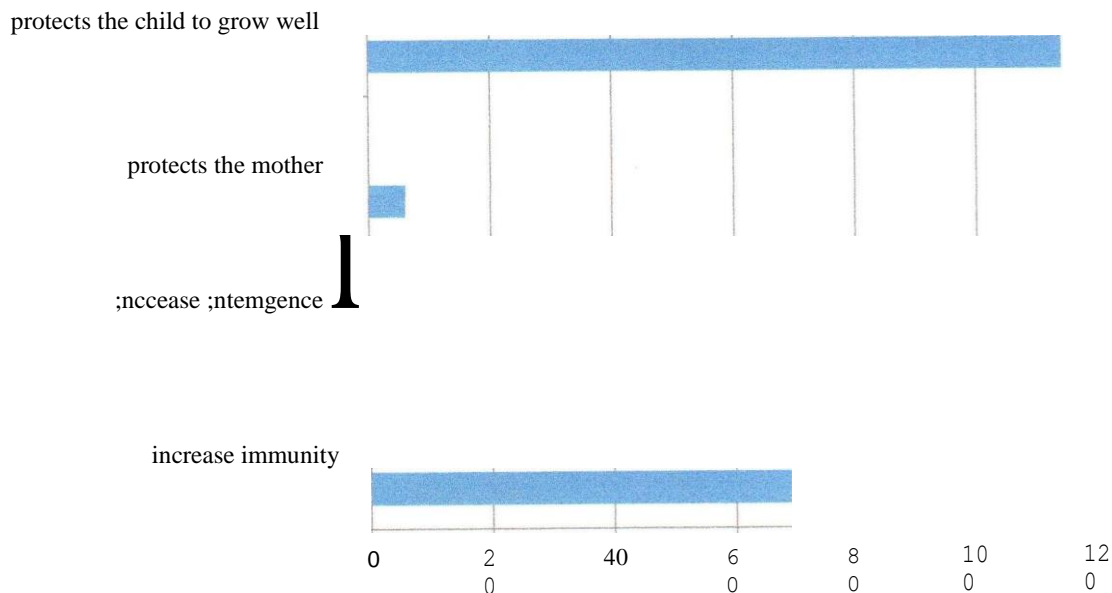


Figure 9:A bar graph showing benefits of breast feeding as mentioned by respondents

Common practices of mothers that hinder normal growth and promote malnutrition among children under five years.

The second objective of the study was to identify common practices of mothers that hinder normal growth and promote malnutrition among children under-fives. In investigating this, the researcher looked at breast feeding initiation, exclusive breast feeding, complementary feeding after six months, mixing of food for infants and other issues.

Breast feeding initiation.

The researcher asked respondents to ascertain how long it took them to initiate breast feeding after birth. 77.5% of respondents said they always initiate breast feeding immediately after birth and 22.5% said they only initiated breastfeeding between one hour and six hours after delivery.

Exclusive breast feeding

The researcher went further to establish how long mothers conducted exclusive breastfeeding. The study revealed that the majority of mothers (67.5%) practiced exclusive breast feeding for complete six months while only 32.5% could do it for less than six months.

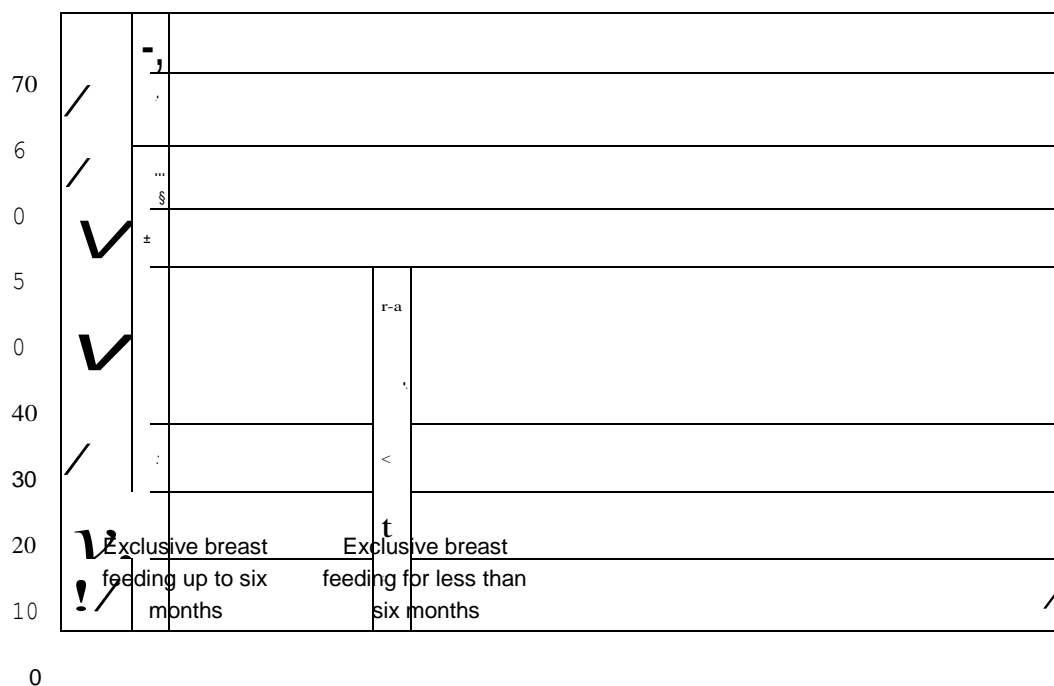


Figure 10: A bar graph showing breastfeeding versus artificial feeding

Feeding pattern.

The researcher went ahead to establish the feeding pattern in children below five years. Mothers were asked the number of times they feed their children. The study findings indicate that the majority (60%) of the sampled mothers feed their children three times a day, followed by 22.5% of mothers who feed their children less than three times a day. The least of mothers (17.5%) feed their children more than three times a day.

Food types for children.

The researcher established types of food given to children. Respondents were asked on food served to children in their homes. Majority of respondents (80%) indicated that they majorly serve solid foods like matoke, karo, rice, posho etc. about 55% indicated that they included liquid food like milk, porridge in their menu. Only 20% of the respondents included green vegetables in their menu while the least of the respondents (5%) added fruits in the menu of young children below five years.

Consistency of food for babies

From the 120 mothers(respondents)sampled, the researcher assessed the consistency of food they feed to infants. 87.5% of mothers indicated that they serve infants thin food while 12.5% of the

respondents indicated that they serve food which is appropriate in consistency (not too thick and not too thin).

Mixing food for babies

The survey further indicates that only 47.5% of care givers mix food for infants before serving and the majority of the care givers (52.5%) do not mix food.

From the above, the researcher went further to establish how often mixing of food is done. The majority of the respondents (73.7%) do it once in a while and 26.3% mix food regularly.

Food restricted to children

Respondents in this study were asked whether they have some foods that are restricted to children and here below are the findings; 40% (48/120) of the respondents indicated that they have some foods restricted to children while the majority (60%) said no food is restricted to children.

Those who intimated that there are foods restricted to children were further asked to mention some of the foods that are restricted to children. 56.2 % (27/48) indicated cassava, 43.7% indicated meat while the least (31.2%) indicated yams.

6.

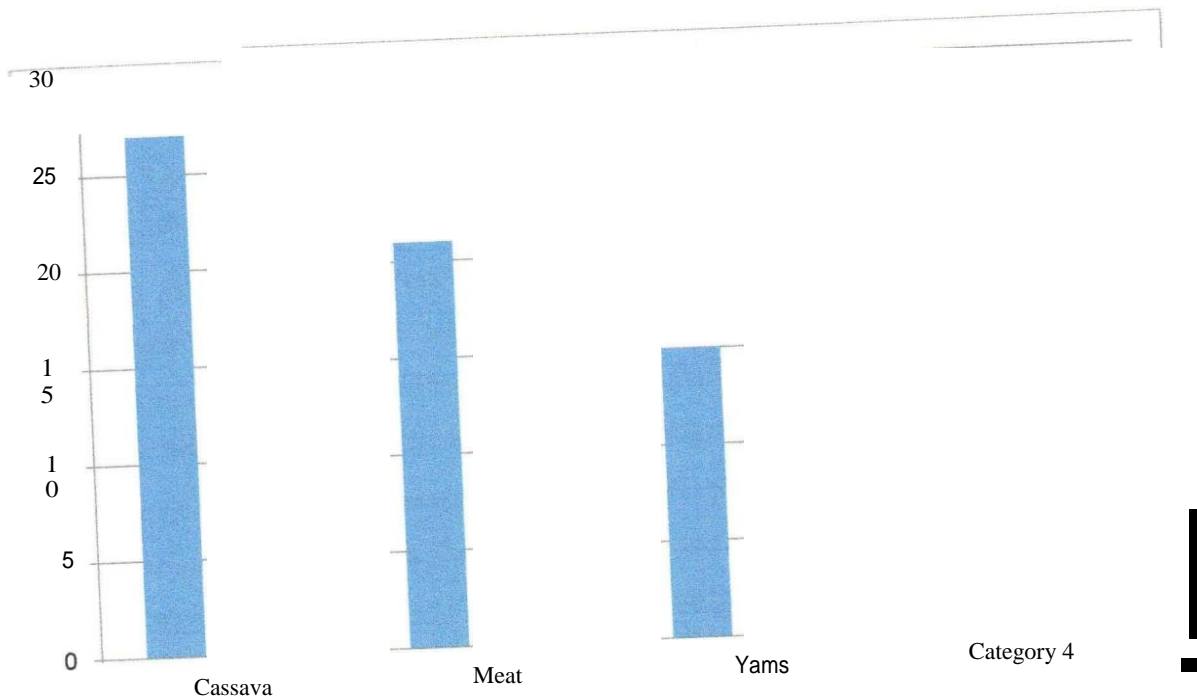


Figure 11:4 bar graph showing foods restricted to children

Respondents were asked the reasons for restriction of these foods. 75% of the respondents showed its personal while 12.5% indicated its culture while the rest 12.5% they said don't know the reason for restriction.

Major source of food

The researcher investigated to ascertain the main source of food for the families of respondents. 97% of the respondents have garden/farms as the main source of food while only 3% obtain their main food from the market.

Supplementary food.

95% of the families of the sampled mothers supplement their main diet with food bought from the market. Only 5% supplement the families' diet with food obtained from other sources. These included donations, compound gardens etc.

4.4 Attitude of Mothers on Management of Malnutrition

Researcher investigated the attitude of mothers on management of malnutrition. Respondents were interviewed whether it's important to deliver from the health center and all 120 sampled mothers agreed. 90% of the sampled mothers with children below 5 years agreed that it's important to breast feed immediately after birth. Only 67.5% of mothers agreed that it was

important to feed children to all types of food in a balanced way and 32.5% did neither agree nor disagree with this statement. The majority of the respondents (92.5%) agreed that water for domestic use should be collected from a protected water source. Only 35% indicated that its important to feed their infants more than three times a day and the rest (65%) disagreed with this statement. Mothers were investigated on whether it's important to feed children on food that have stayed overnight before warming. About 75% agreed with this statement and 17.5% did neither agree nor disagree. 95% of the respondents agreed that it's important for children suffering from malnutrition to be taken to the health center for management. Mothers were investigated on exclusive breastfeeding and 90% of mothers agreed that children should be breast fed exclusively for the first six months. The researcher investigated mothers on whether sick children should be fed more than those who are healthy. 35% of the respondents agreed with this statement and the majority (62.5%) disagreed with it. Only 2.5% did neither agree nor disagree.

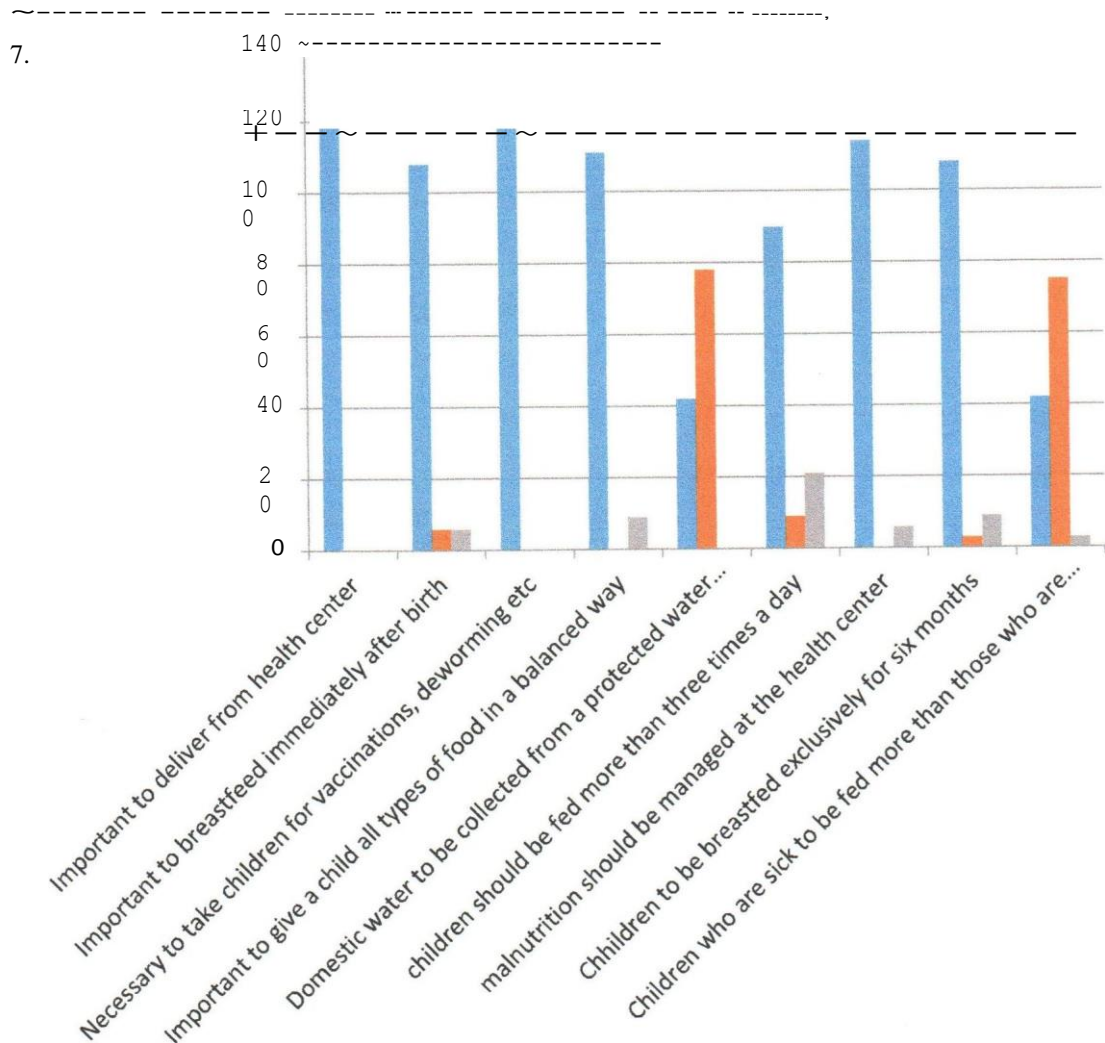


Figure 12: A bar graph showing attitude of mothers on management of malnutrition

CHAPTER 5: DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents discussion of the findings, conclusions and recommendations for the study on assessing knowledge, attitude and practices of mothers of under- five on malnutrition. It also highlights the areas recommended for further research.

Respondents by age

The majority of the respondents were between the age of 21 and 30 years. Young maternal age is a risk factor for child under nutrition

It is suggested that these associations result from interactions of biological, behavioral, and social factors. The nutritional needs of pregnant young mothers may compete with those of the developing fetus because they are still growing resulting in increased nutritional demands compared to adult pregnant women. Young mothers may breastfeed for a shorter duration than older mothers , be behaviorally immature and therefore less sensitive to the needs of their infants, and may easily get annoyed and use less emotionally positive communication compared to adult mothers. In addition, younger mothers tend to have less education, and to be of lower socio-economic status and so have a higher chance of experiencing psychological stress resulting from limited resources and parenting. This is in agreement with the study conducted in Tamale Metropolis, Ghana by Wemakor Anthony et al, 2018 which revealed high prevalence of stunting, wasting and underweight among children under five of teenage mothers in Tamale Metropolis, Ghana. Children of teenage mothers compared to those of adult mothers were at least three times more likely to be undernourished.

Education background

These statistics show that the biggest proportion of the sampled mothers had attained some level of education. From the general understanding levels of education have effects on the care a mother gives a child. However, it was noticed that majority of mothers had completed primary level and very few had attained tertiary education (Diploma, Degree and above) yet the knowledge attained at that level on nutrition may not be sufficient.

At this level of education, they may not have attained adequate knowledge about causes of malnutrition and therefore are liable to foul practices during their motherhood which may contribute to malnutrition. This therefore would necessitate regular and intensive health education by health workers. This is in line with a study carried out in Kisumu County, Kenya

that was aimed at improving household knowledge, attitude and practices of mothers towards malnutrition. (Wasonga, Olango et al. 2014).

Occupation

Looking at the occupation, the majority of respondents were house wives and very few were in formal employment. This is good in such way that these mothers have a lot of time to take care of their children themselves. This is in agreement with a study conducted by BehzadShams,ParasitoGolshiri et al, 2012 conducted in India which showed that growth status of children with housewife mothers in their second year of life was better than that of children with working mothers. Awareness and knowledge of the mothers about nutritional evolution stages and education of mothers about appropriate behaviors in each stage helped them to recognize the children's needs and did their best for their children.

However on the other hand, these mothers may lack financial capacity to buy food that may be needed to complement the locally grown.

Knowledge of mothers on causes, signs and symptoms of malnutrition among children under five years

The majority of respondents could mention at least two causes of malnutrition except a few who included in witchcraft and congenital. With the knowledge of causes, care takers are able to take precautionary measures to prevent their children from malnutrition.

Signs and symptoms of malnutrition

Just slightly above half of the respondents(51.7%) could tell that pale hair is a sign of malnutrition. 36.7% talked of distended abdomen. 32.5% of respondents talked pale skin as sign of malnutrition while the least (15%) of the respondents mentioned swollen feet.

These statistics show that most mothers (50.8%) lack knowledge on signs and symptoms of malnutrition and this could lead to delay in seeking appropriate care. This agrees with the study conducted by Samuel Nambile Cumber, NkengatehBabaraAnkrarah et al, 2016 in Muea Health Area Cameroon which concluded that Majority of the mothers did not understand the signs and symptoms of malnutrition in children 0-5 years.

Main source of food for babies below 6 months

Largest proportion of mothers (90%) is aware that breast milk is main source of food for babies. However 10% mentioned artificial food as the best food for under 6 months babies. This reveals information gap which must be fulfilled by health workers through conducting regular health education talks.

On good note, all respondents could mention at least one of the benefits of breast milk to both mother and the child. The most outstanding ones as mentioned by respondents are; helping the child to grow well and increasing immunity for the baby. These statistics show that mothers know the benefits of breast feeding hence motivated to practice it. Breastfeeding protects infants against diarrheal morbidity and mortality, through immunological mechanisms and by reducing exposure to contaminated fluids and foods. There is clear evidence that none or suboptimal breastfeeding is associated with increased diarrheal incidence and duration.

WHO and UNICEF recommend that children be initiated to breastfeeding within the first hour of birth and be exclusively breastfed for the first 6 months of life meaning no other foods or liquids are provided, including water. Infants should be breastfed on demand that is as often as the child wants, day and night. (WHO, 2020)

Practices of mothers that hinder normal growth and promote malnutrition among children under- five years.

In practice, children should be fed exclusively for first six months before they are introduced to other foods however statistics from this survey reveal that a larger section of mothers (77.5%) introduce other foods before the age of six months. Formula feeding can change a baby's normal intestinal bacteria. This could increase a baby's risk of infection in the digestive tract. It could also increase their risk for immune problems later in life and expose them to illness. Nursing mothers are often culturally pressured to give water and artificial feeds to infants as reported by participants in this study as the third most constraining factor to EBF. Considering the impact society has on mothers' initiation and duration of breastfeeding, public education on breastfeeding should be intensified so as to stimulate societal support for EBF practice. Midwives, public health and community health nurses can have targeted education at close relations of the pregnant woman during antenatal and postnatal periods to enhance support for EBF. Basing on their educational and cultural background, mixing and preparing of food for babies is a complex issue that they can't manage. This is in agreement with Abigail Kusi, Victoria Barn et al, 2016 study conducted in Ghana.

In their study, they concluded that; although the rates of EBF for the past two decades have been increasing, it is still a long road to achieve the 100% global target coverage recommended by UNICEF. This is evident in the current low prevalence of EBF in the developing world particularly in West and Central Africa which happen to have one of the highest rates of infant malnutrition in the world

The statistics further reveal that majority of respondents do not mix food for babies before serving. This act predisposes infants to malnutrition as they lack some essential nutrients. Food for babies should be mixed with a view to have a balanced diet that contains all food values in the right quantities.

The survey further indicate that even those who mix food, 73.7 % do it once in a while and only few practice it regularly. This inconsistency may not yield the benefits of food mixing fully. All this can be changed with constant health education by health professionals.

The survey revealed that some foods are restricted to children and the common ones are meat, cassava and yams. Major reasons for restriction are personal and culture. By denying infants such types of foods, they miss out essential food values and if no substitution of food with similar nutrients is done, they may suffer from nutritional deficiency. This is in agreement with the study conducted in two slums, Korogocho and Viwandani in Nairobi, Kenya by African Population and Health Research Center (APHRC) where Cultural beliefs and norms were discovered to have a powerful influence on human nutrition and have been identified as among the determinants of breastfeeding practices. Several studies have also emphasized the need to understand and incorporate cultural beliefs and practices in design and implementation of health and nutrition interventions

Interventions promoting behavior change with regards to breastfeeding and infant feeding should focus on dispelling the beliefs and practices that result to suboptimal breastfeeding practices and to build on the positive ones, while involving spouses and other family members as they are important sources of information on breastfeeding and infant feeding.

Feeding pattern.

Most mothers feed children three times and below in a day. This is not fairly a good practice. Young infants should be fed well mixed food several times (more than four times) but in small portions. This is because their bodies are not yet used to this type of food.

Attitude of mothers on management of malnutrition

All mothers showed positive attitude towards delivering from the health unit and taking their children for vaccinations and deworming. This could be attributed to several health talks passed on by Ministry of Health on different platforms and several sensitizations conducted by health workers.

Majority of respondents are okay with breast feeding immediately after birth and they also agree that after six months they should be fed on all types of food in a balanced way. In general, a greater percentage of the mothers had positive attitudes towards the desired practices with exception of a few which can be attributed to the varying social demographics and education back ground. However, the majority did neither agree that domestic water need to be collected from protected water source nor sick children to be fed more than those who are not sick. This is in agreement with a study done in the peri-urban communities of Kenya where the respondents perceived their source of water to be safe hence ignored the necessary practices. This continuously exposed them to unsafe water resulting into diarrheal diseases (Kioko and Obiri 2012)

SUMMARY OF THE FINDINGS

From the findings, the majority of the mothers were still under youth bracket. Most of these are very active in reproduction.

Looking at education levels, majority of respondents did not complete primary education and above. Much as government introduced both UPE and USE, it is evident that majority of women drop out school curriculum very early. This limits them in understanding ways of dealing with malnutrition.

Looking at the occupation, the majority of respondents were house wives and very few were in formal employment. This is good in such way that these mothers have a lot of time to take care of their children themselves. However, this makes them vulnerable as they may not have resources to buy supplementary foods that are not locally grown.

My first objective was assessing knowledge of mothers on causes, signs and symptoms of malnutrition among children under-five years. In this regard, causes of malnutrition, signs and symptoms extra. Just slightly above half of the respondents could tell the causes. Some still

mention witchcraft and congenital as causes of malnutrition. This indicates that health education is still lacking in some parts of Bugongi.

It is evident that mothers appreciate the role of breast milk to babies. Many of them could mention the importance of breast feeding to the mother and the children. However on the contrary, very few practice exclusive breastfeeding for the first six months. Many mothers are influenced by culture to give either water or traditional herbs before even the child makes one week. Breastfeeding protects infants against diarrheal morbidity and mortality, through immunological mechanisms and by reducing exposure to contaminated fluids and foods. At that tender age, the internal organs are still weak to digest some of induced products hence causing serious problems.

My second objective was to establish practices of mothers that hinder normal growth and promote malnutrition among children under five years. It was discovered that most mothers do not practice exclusive breast feeding for even a month. Nursing mothers are often culturally pressured to give water and artificial feeds to infants. Others practice formula feeding because of one reason or another and this can change a baby's normal intestinal bacteria. This could increase a baby's risk of infection in the digestive tract. It could also increase their risk for immune problems later in life and expose them to illness.

Secondly the survey revealed that some foods are restricted to children and the common ones are meat, cassava and yams. Major reasons for restriction are personal and culture. By denying infants such types of foods, they miss out essential food values and if no substitution of food with similar nutrients is done, they suffer from nutritional deficiency.

For infants six months above, they should be served a well-balanced food. Remember, no food has got all essential food values and hence should be mixed. Basing on mothers educational and cultural background, mixing and preparing of food for babies is a complex issue that they can't manage.

My final objective was establishing the attitude of mothers on management of malnutrition. It was discovered that most mothers are okay with delivering from the health unit where they get basic health education on breast feeding, family planning, weaning practices extra. The challenge however, the majority of mothers don't connect the importance of safe water to disease incidence. In addition, they don't appreciate that sick children need more nutrients to support the

body immunity than health child. This kind of attitude extends bedridden of sick children and hence a lot of time is wasted during nursing.

CONCLUSIONS

The study set out to assess knowledge, attitudes and practices of mothers on management of malnutrition among children less than five years in Bugongi Town Council, Sheema district.

The findings suggest that mothers have knowledge on causes of malnutrition and this is good in a way that mothers will do what is within their means to prevent it. However mothers are still ignorant about signs and symptoms of malnutrition. With no clear knowledge of the signs and symptoms, mothers may not seek for appropriate care.

Added to the above, mothers demonstrated a satisfactory practice on breastfeeding. However, exclusive breastfeeding for the first six months is lacking. In supporting grown up infants for complementary feeding, mothers' practice was not satisfactory either. Most mothers never mixed food for babies and hence this practice could predispose to malnutrition. Even those who practiced mixing, it was revealed that it's done once in a while. Most mothers indicated that some foods are restricted to children by personal or cultural reasons.

Finally, the findings reveal that the mothers had generally positive attitudes towards the desired practices in the management of malnutrition. Majority of the mothers had positive beliefs towards breastfeeding, delivering from health unit, taking children for vaccinations and immunizations to mention but a few. A few concerns were however raised on some attitudes like not feeding a sick child more often. This kind of attitude may extend healing period of a child.

RECOMMENDATIONS

Based on the findings of this study, a number of recommendations have been suggested to reduce childhood malnutrition. These will help policy makers, health workers and the mothers to address this challenge.

There should be intentional strategies and policies developed by government to change mothers' mindset about causes and effects of childhood malnutrition.

In formulation of breastfeeding policies, culture should be mainstreamed. It plays an important role as at when one should initiate breastfeeding and when other foods are introduced.

More research should be conducted to deeply understand the role of culture in childhood feeding. This seems to have a great bearing on when a child is initiated for breastfeeding and when other foods are introduced.

Strategies should be put in place to increase mother's income. No single community can grow all the food they need and hence need money to purchase supplementary foods.

Health professionals need to conduct regular health education to educate masses as when complementary feeding should be initiated.

Much as the government introduced UPE and USE, many mothers had not even completed primary cycle. This has an influence on the knowledge a mother has in relation to malnutrition. Therefore research should be conducted to establish why most women do not complete ordinary level of education.

In places that are 5km or more away from the health unit, health outreaches should be conducted to improve uptake of health messages.

Government need to employ nutritionist to be based at health center Ills. These will help to sensitize our mothers and the general public on eating health foods and health habits.

Finally, the study concludes that culture; low levels of knowledge and lack of constant health education messages have a great impact on malnutrition in Bugongi. And this may not be an issue of Bugongi alone but the entire district of Sheema. Similar studies conducted in Ghana by Abigail Kusi, Victoria Barn et al, 2016 revealed that exclusive breastfeeding, preparing of food is a complex issue that most mothers can't manage without addressing culture and education.

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APPENDIX 11: CONSENT FORM

Good morning /afternoon, my name isand I am a student of Kabale University department of community Health, conducting a survey on knowledge, attitude and practices of mothers on management of malnutrition among Children under five years in Bugongi Town Council, Sheema district

You are requested to participate in this study and your participation is voluntary. You are also free to withdraw from the study at any time should you wish not to continue.

Details of the information given will not be recorded and only numbers will be used. The data collected and consent form will be securely stored under the lock and key.

CONSENT

I freely agree to participate in this research and join in the study.

Interviewee's signature date

Interviewer's signature date

APPENDIX III: QUESTIONNAIRE

Knowledge, Attitudes and Practices of mothers on management of malnutrition among Children under five years in Bugongi Town Council, Sheema district.

Questionnaire no

Date of survey

DEMOGRAPHIC INFORMATION

1.Age of the respondent (in complete years)

2. Level of education(Tick the applicable)

Primary

Tertiary

Secondary _____, 3.

Never gone to school

What's your occupation?

House wife

Formal employment

Self-employed [

Private Organization

Other (specify)

4. Whats your monthly income?

50,000 below

50,000-200,000

210,000-500,000

Above 500,000

5. Whats your religion?

(a) Chritian

(b) Muslim

(c) Hindu

(d) Other

6. How many children do you have that are below 5 years

7. How far is it to the nearest health center?

Below 0.5 km

0.5-1Km

8. Where do you get water for domestic use?

Borehole

above 5Km

protected spring



- Tap
Tank
9. How long is the distance to the water source?
Beto»so.sKm [
- open well other
(specify)
os-1a

so L] as «o

I

KNOWLEDGE OF CAUSES, SIGNS AND SYMPTOMS OF MALNUTRITION

10. Have you ever seen/had a child with malnutrition? Yes D No D

11. What do you think causes malnutrition in young children(circle answers given) (a)
Little food is given
(b) Food not balanced
(c) Diseases
(d) Congenital (
e) Witch craft
(f) Other

12. State symptoms of malnutrition known to you(tick all answers given)

Distended abdomen [L ' Swollen feet
Pale skin 1
Other specify

13. When a child shows the above signs you mentioned, where do you go for treatment?(
circle all mentioned)

- (a) Remain home
(b) Go to health unit
(c) Traditional healer
(d) Go to church for prayers
(e) Other (specify)

14. Any diseases known to you caused by taking excess nutrients than the body wants?(circle all
answers given)

- (a) Obesity
(b) Diabetes
(c) Blood pressure
(d) Don't know

(e) Any other (specify)

15. What's the best nutrition source for the baby below six months?

Breast feeding

Artificial feeding

16. What's the advantage of breast feeding?(circle all mentioned) (a)

Increase immunity

(b) Increase the intelligence of the baby (

c) Protects mother from cancer

(d) Helps the child to grow well

(e) Any other(specify)

PRACTICES TOWARDS MALNUTRITION

17. When you give birth, how long do you start on breast feeding?(Tick)

(a) Immediately after birth (b)

One- six hours after birth (c)

Above six hours

18. How long do you conduct exclusive breastfeeding?(Tick)

(a) Below 6 months

(b) Six months

(c) More than six months (

d) Don't breast feed at all

19. When is the right time to begin complementary feeding?(Tick) (a) At 6 months

(b) Before 6 months

(c) After 6 months

20. How many times do you feed your child a day?

(a) Three times a day

(b) More than three times a day (

c) Less than three times a day

21. What type of food do you normally give to young children that have started eating?(circle all that apply)

(a) Only liquid foods porridge, milk, juice etc

(b) Solid foods egmatoke ,posho, millet, cassava, rice etc (c)

Fruits egmangoes,pawpaws,

(d) Green vegetables egdodo,cabagge

(e) Others (specify)

22. What is the consistency of the food you serve your child?(Classify) (a)

Thin

(b) Thick

(c) Appropriate

23. How many major classes of food do you know?



don't know

Less than three ~

More than three

i

24. Can you tell me those classes of food?(tick that she mentions)

Body building

Energy giving

Protective foods

Don't know any

±

25. Do you normally mix food given to the child? Yes [/No]

26. If yes, how often is it done?

Always [] once in a while []

27. Do you have some types of food that are restricted to children?

Yes [] No []

28. If yes, what are those? Let her mention

.....

.....

.....

.....

29. What could be the reason for restriction?

Culture

Religion

Personal

Don't know

3

30. What's your major source of food as a family?

From garden/Farm

From market

so » L] oa-so » /

C=-7

31. Where do you get other types of food to supplement your major source food?

From garden/Farm

From market

Donations ~

Others (specify) l_ .==J

ATTITUDE ON MANAGEMENT OF MALNUTRITION

A=Agree D=Disagree N=Neutral

NO	Statement	A	D	N
D1	It is important to deliver from a Health center			
D2	It is important to breastfed immediately after birth			
D3	It is necessary to take your child for all vaccinations, deworming and health education			
D4	It is important to give a child all types of food in a balanced way			
D5	water for domestic use should be collected from a protected water source			
D6	Children should be fed more than three times in a day			
D7	Children should not be fed on food that have stayed overnight before warming			
D8	Children suffering from malnutrition should be taken to the health center for management			
D9	Children should be breastfed exclusively for six months			
D10	Children who are sick should be fed more than those who are not sick			

Thank you