ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

COLLEGE OF HEALTH SCEINCES

DEPARTMENT OF NURSING AND MIDWIFERY

THE ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE (KAP) OF MOTHERS IN FEEDING THEIR UNDER FIVE CHILDREN IN A RURAL COMMUNITY OF KELLECH TIKKA KEBELE, SEBETA AWAS, SPACIAL ZONE SURROUNDING FINFINNE, OROMIA REGION, 2014

By: MERGA BAYOU BEKELE (BSc)

THE RESEARCH THESIS SUBUMUTTED TO THE SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA UNIVESITY IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE MASTERS IN PEADIATRIC NURSE IN NURSING AND MID-WIFERY DEPARTMENT

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Addis Ababa, Ethiopia

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This thesis by **Merga Bayou** is accepted in its present form by the Board of Examiners as satisfying thesis requirements for degree of masters in pediatrics nursing.

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Rank	Rank
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Signature	Signature
_____ Date	_____ Date

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List of abbreviation

BMI: Body Mass Index

HAZ: height-for-age z-scores

KAP: knowledge, attitude, and practice

MoH: Ministry of Health

NRI: Nutrition Research Institute

SES: socio-economic status

SNN: Southern Nations and Nationalities

UNHCR: United Nations High Commissioner for Refugees

UNICEF: United Nation Children Fund

WAZ: weight-for-age z-scores

WHO: World Health Organization

WHZ: weight-for-height z-scores

AOR: Adjusted odd ratio

COR: Crude odd ratio

Abstract

Background Malnutrition remains one of the most common causes of morbidity and mortality among children throughout the world. It is responsible about 60% cause of death in under age of 5 years

Objective To assess knowledge, attitude and practice (KAP) of mothers feeding their under five children in a rural community Kellecha Tikka Kebele, of Sebeta Awas district, Surrounding Finfine special Zone, Oromia Region, 2014 G.C

Methods and Materials: - A cross-sectional study design was conducted on 597 mothers to determine the level of knowledge, attitude and practice and their relation with socio-economic demographic characteristic in Kellecha Tikka Kebele. The data was manipulated and analyzed by using Epi.info version 3.4.3 and SPSS version 21.0.

Result: - from the total of 597 mothers, 339 (56.8%) had no sufficient knowledge about child feeding and 258 (43.2%) had sufficient knowledge about child feeding. From the total of 597, 585 (98%) gave food or liquid before six months age and only 12 (2%) had not been given food or liquid. The mother had good practice 271 (45.5%) and poor practice 327 (54.6%) as well as good attitude 279 (46.6%) and poor attitude were 318 (53.3%). In multivariate analysis the mother who can read and write was less likely good practice than that learnt secondary school and above. The protestant followers had best practice towards child feeding than other religion followers

Conclusion:- Generally the study showed that from the total of 597, 585 (98%) gave food or liquid before six months age and only 12 (2%) had not been given food or liquid. From 585 that gave liquid or fluid before six months of age 55 (9%) gave the water, 274 (47%) gave the butter, 235 (40%) gave the milk and 26 (4%) other food or liquid like tenadam for their children before

six months of age. This low level of knowledge (56.8%) about child feeding and not know the time of EBF resulted that the study took place in the rural area and affected by another socio-demographic characteristics. From this result most of the mother reported as they knew EBF but when asked did they give food or fluid before six months of age 585 (98%) did that. The mother who can read and write was less likely good practice than that learnt secondary school and above. The protestant followers had best practice towards child feeding than other religion followers.

CHAPTER ONE

1. INTRODUCTION

1.1 BACKGROUND OF THE PROBLEM

Most causes of child mortality in developing countries are preventable. Malnutrition alone is responsible for over half the under-five-year-old deaths in developing countries, making it one of the most important public health problems in the developing world (Pelletier, 1994; Shanghai and Murray, 1997)(1). A recent estimate in Black et al (2003) shows that an estimated 53 percent of child deaths per year are attributable to being underweight the resulted from lack of knowledge not only availability of food.(2)

Child malnutrition in Ethiopia constitutes a particularly daunting challenge as the country had a 17 percent under-five mortality rate in 2001, of which an estimated 57 percent was linked to severe and mild to moderate malnutrition. This challenge is further exacerbated by the fact that Ethiopia is one of the least developed countries in the world as measured by the (Purchasing Power Parity) per capita GNP or the Human Development Index (World Bank, 2004; UNDP, 2002)(3).

Some 44 percent of the Ethiopian people live below the poverty line (MoFED, 2002a). The food poverty line used in the SDPRP is based on a basket providing 2,200 kcal per adult equivalent per day. After adjusting for the non-food component the total poverty line (both food and non-food like knowledge attitude and practice of family) was estimated at 1,075 Birr in 1995/96 (MoFED, 2002b).(4)

National data from 1999–2000 show that **wasting** (acute malnutrition) and **stunting** (chronic malnutrition) in children aged six to fifty-nine months were 9.6 and 56.7 percent respectively

(Ministry of Finance and Economic Development MoFED,2002a, 2002b)(2). These figures are among the highest in the world and are severe even by sub-Saharan African standards (World Bank, 2004) (3).

In recent years Ethiopia has only had limited success in reducing the prevalence of child malnutrition. In the case of wasting, the rate increased slightly from 9.2 percent to 9.6 percent between 1995 and 2000. However, the proportion of severely wasted children declined by 47.1 percent (from 3.4 percent to 1.8 percent) over the same period. Much of this change can be accounted for by change in rural areas where severe wasting was halved. Disaggregating by gender, the data indicates that girls were better off in 1999–2000 while males fared better in 1995–96 in terms of both wasting and severe wasting.(5)

Survivors of child malnutrition can suffer from impaired physical development and limited intellectual abilities, which in turn may diminish their working capacity during adulthood and have negative effects on national economic growth (Alderman et al, 2004; Alderman et al, 2003).(6)

Child malnutrition may also lead to higher levels of chronicillness and disability in adult life which may have intergenerational effects as malnourished females are more likely to give birth to low-weight babies (Silva, 2005)(7). Inability to reduce the prevalence of malnutrition in children under five will lead to non-achievement of one of the keytargets of the first Millennium Development Goal, eradication of extreme poverty and hunger(7, 8).

1.2 STATEMENT OF THE PROBLEM

Nutritional status is primarily determined by a child's growth in height and weight and is directly influenced by food intake and the occurrence of infections. Food intake is not only a result of food availability at the household level but also of dietary quality and quantity and feeding practices(9).

Optimal infant feeding practices, which include breastfeeding and timely complementary feeding, contribute to the level of food intake in infants and young children (Brown et al., 1998). In addition, acute and chronic infections have a major impact on nutritional status because they impair growth by limiting macronutrient and micronutrient intake and utilization (Stephenson, 1999) **(**10**).**

The World Health Organization (WHO) estimates that some 3 billion people suffer from malnutrition of one kind or other. One out of five people suffer from the worst of variants of malnutrition hunger(11). It affects almost 800 million people, with most of them in the developing countries. The proportions are 70% in Asia, 26% in Africa and 4% in Latin America and Caribbean(12).

Many studies have been conducted in health and nutrition in Ethiopia over the last few years. The studies show that Ethiopia is one of the countries with the highest levels of malnutrition in Sub-Saharan Africa. Malnutrition is particularly prevalent among children under five years of age, and pregnant and lactating women. Malnutrition occurs primarily because of inadequate food intake and poor dietary diversity. The root causes of malnutrition in the country include endemic food shortages in many parts of the country, a limited variety of food to choose from, and widespread poverty, which has made it difficult for most families to access the food they need. Other factors contributing to malnutrition include the disease burden, use of unsafe water, poor sanitation, and low uptake of primary health services and low levels of maternal education.(13)

Only 51 percent of Ethiopian households use water from improved sources (i.e., piped, borehole, protected well, protected spring, collected rain water or bottled water), 27 percent have improved toilet facilities (i.e., flush toilet, pit latrine or compositing toilet) and a relatively small proportion of the population utilizes the primary care services that could improve the overall health and nutritional status of the population(13).

Lack of knowledge regarding the nutritional needs of children may lead to the withholding of needed food, even when it is available. This entails the importance of parental education in determining children's nutritional status. Education, especially maternal education, is a powerful predicator of children's nutritional status (14).

Additionally, poor nutrition results not only from a lack of food and lack knowledge but also from inappropriate feeding practices where the timing, quality and quantity of foods given to infants and young children are often inadequate. Optimal breastfeeding and complementary feeding practices are essential to meet the nutritional needs of children in the first years of life(15).

The Convention on the Rights of the Child and subsequent World Food and Nutrition Summits have recognized and declared the right of all children to have access to safe and nutritious food to achieve the highest attainable standard of health. Women also have the right to proper nutrition, to make informed decisions about how to feed their children and to full information and appropriate conditions that will enable them to carry out their decisions. Implementation of this infant and young child feeding strategy will facilitate fulfillment of these rights(16).

The government has developed policies on infant and young children feeding practices based on the UNICEF baby friendly initiative, and supports the WHO codes for marketing breast milk substitutes with an aim of promoting, protecting and supporting breastfeeding. However, studies have shown that mothers are lacking adequate knowledge on breastfeeding (15).

Understaffing of most public health facilities has a detrimental effect on quality time spent and the frequency of nutrition education sessions. Inadequate maternal knowledge about feeding practices is often a greater determinant of malnutrition than lack of food. (17)

The Ethiopian government has been implementing a comprehensive economic reform Programme over the past decade. The reform programme has resulted in remarkable economic performance; macroeconomic stability was attained. A real gross domestic product (GDP) growth rate of 11 percent per annum has been achieved since 2003. The poverty level as measured by the total population under the poverty line has declined from 49.5 percent in 1994/95 to 29.2 percent in 2009/10. The food poverty head count index also declined from 38 percent to 28.2 percent between 2004/05 and 2009/10. However, poverty still affects one-third of the population (MOFED, 2010a).(18)

Ethiopia has developed a five-year development plan, the Growth and Transformation Plan (GTP), for the period 2010/11 to 2014/15. Key objectives of the GTP are ensuring high economic growth and achieving the Millennium Development Goals (MDG). Within the framework of the GTP, five-year sectorial development programmes have been outlined (MOFED, 2010b). Vital to the attainment of this plan are the systems and structures to reach communities and households (18).

1.3 SIGNIFICANT OF THE STUDY

Factors associated with the problems of malnutrition may differ among regions, zones, and communities, as well as over time. Identification of the major risk factors associated with KAP of mother in feeding their children for each region is, therefore, essential if appropriate policies and programs are to be devised to rectify nutritional deficiencies and imbalances. Children continue to suffer from malnutrition and its related complications despite efforts by policy makers and health care service providers(17).

This study, therefore, estimated the KAP of mothers feeding their children, examined the influence of some of the socio-economic, demographic, child care, and environmental variables. As it was clearly stated lack of knowledge, low attitude and poor feeding practices were affecting child feeding than effect of food scarcity(14). Thus the benefit of this research is

- Identification of the major risk factors associated with KAP of mother in feeding their children for the study area and country
- To base appropriate policies and programs are to be devised to rectify nutritional deficiencies and imbalance
- Identifies the major risk factors that contributing to poor KAP of mother to feed children
- The health workers in PHC centers get proper feedback from the outcome of this research, towards providing better health education for mothers to provide better nutrition for their children.
- It can be the base for the next study, to plan health education and implementation.

CHAPTER TWO

2. LITRATURE REVIEW

2.1 NUTRITIONAL STATUS OF THE CHILDREN OF ETHIOPIA (STUNTING, WASTING AND UNDERWEIGHT)

Worldwide, malnutrition is an underlying cause in the deaths of more than 3.5 million children under the age of 5 each year. Some 13 million infants are born each year with **low birth weight (LBW)**. Fifty five million children are **wasted**, and of these 19 million are severely wasted. About 178 million children around the world are **stunted**. Of the estimated 178 million, 90 percent live in 36 countries, one of which is Ethiopia (Black, 2008). Ethiopia has witnessed encouraging progress in reducing malnutrition over the past decade. However, baseline levels of malnutrition remain so high that the country must continue to make significant investments in nutrition(19).

Additionally, more than one quarter (26 per cent) of children under 5 years of age were stunted in 2011 roughly 165 million children worldwide(20) . But this burden is not evenly distributed around the world. Sub-Saharan Africa and South Asia are home to three fourths of the world's stunted children. In sub-Saharan Africa, 40 per cent of children under 5 years of age are stunted; in South Asia, 39 per cent are stunted(20).

According to the World Health Organization (WHO), 115 million children under age 5 worldwide are underweight, and 178 million are too short for their age group (stunted). Stunting is a measure of chronic malnutrition as growth slows, brain development lags, which over the long term leads to poor economic development in countries with high burdens of stunting. The Alive & Thrive baseline survey showed that 32 percent of children 6-24 months are stunted in the

combined implementation districts, including Humbo. Nationally, 44 percent of children under 5 are stunted according to the 2011 Ethiopia Demographic and Health Survey(21). This makes Ethiopia is among fourteen countries that are home to 80 per cent of the world's stunted children which was 3 percent global burden(20).

The low nutritional status among children has compromised the health of the children in Ethiopia, exposing them to poor health and early death. Ethiopia's infant mortality rate (77 per 1000 live births) and under-five mortality rate (123 per 1000 live births) are among the highest in Sub-Saharan Africa. The document identifies the following as the factors contributing to the high mortality rates among children in Ethiopia as in other Sub-Saharan African countries: respiratory infections, diarrhea, malaria, measles and other infections. Five percent of all deaths occurring among children under the age of five are directly related to malnutrition(22).

About 38 percent of under-five children in Ethiopia are underweight, 47 percent are stunted and 11 percent are wasted. About 54 percent of the children are anemic: 21 percent mildly anemic, 28 percent moderate anemic and 4 percent severely anemic. Anemia rates are highest in the Somali and Gambela regions (86 and 62 percent, respectively), and lowest in Addis Ababa (38 per cent)(22).

Only 19 percent of under-five children live in households that use salt fortified with an adequate amount of iodine. The use of iodized salt is lowest in Addis Ababa (12 per cent) and highest in Dire Dawa (53 per cent). Only 46 percent of under-five children receive vitamin A supplementation, the highest proportion being in Tigray (65 percent) and the lowest in Benishangul (27 percent)(22).

Additionally, 43 percent of children aged 6-23 months had received vitamin A supplementation. 34 percent of children aged 6-59 months were underweight 22 percent in urban areas and 37

percent in rural areas. Afar (19 percent) and Tigray (17 percent) had the highest proportion of underweight children(22).

38 percent of all children were stunted, compared to only 15 percent of children of mothers who had been educated at the secondary level and above. Rural areas had more stunted children (41 percent) than urban areas. The regions with the highest prevalence of stunting were Amhara (45 percent), Tigray and Afar (44 percent each) (22).

21 percent of children were wasted 13 percent in rural areas and 9 percent in urban areas. Wasting was higher among children of mothers defined as thin according to their BMI (17 percent) and mothers with no education (13 percent). The regions with the highest prevalence of wasting were Afar (17 percent) and Somali (17 percent) (22).

2.2 KNOWLEDGE, PRACTICE AND BEHAVIOR THAT AFFECT NUTRITIONAL STATUS OF THE CHILDREN

According to the document, breastfeeding is virtually universal in Ethiopia. Only one percent of the women do not breastfeed their babies. About half of all infants under six months of age are exclusively breastfed in line with recommendations of the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), 15 percent of infants are fed on a combination of breast milk and water, and 17 of infants' percent are fed on breast milk and other kinds of milk, and 14 percent of infants are fed on solid foods in addition to breast milk(15, 20). In 2003, the Academy for Educational Development (AED) LINKAGES project conducted a qualitative study in Addis Ababa, Gondar and Jimma; the study found that breastfeeding was virtually universal in all the three study sites. In Addis Ababa and Jimma, breastfeeding started soon after delivery, while in Gondar it could be delayed for up to two or three days. Most mothers breastfed their babies for the first 4-6 months, but it was common to give cow's milk,

formula, fenugreek water, plain water, butter and the *tenadam* herb alongside breast milk, thereby not complying with the WHO/UNICEF exclusive Breast feeding recommendations.

Complementary feeding usually started between 3-4 months, and mothers weaned their babies between one year (Addis Ababa) and two years (Jimma and Gondar)(23)

Most women believe in the "evil eye" and are afraid to breastfeed their babies in public. Those who breastfeed in public cover their babies to shield them from the "evil eye"(24).

Mothers in Shochora Ogodama, a sub-district of Humbo district in Ethiopia, following their traditional understanding of child feeding, used to give their newborns herbal extracts to relieve abdominal cramps, discarded colostrum, and introduced complementary feeding as early as three months all of which contributed to malnourishment in their children (21).

World Vision's Gates Foundation-funded Alive & Thrive project is working to change parents' understanding of infant and young child feeding practices over two years in Ethiopia's Humbo district, as well as to influence the health system in the country to include this information in basic health packages that the population receives(21).

2.3 SOCIO-DEMOGRAPHIC CHARACTERISTICS AND NUTRITIONAL STATUS OF THE CHILDREN IN ETHIOPIA

The international literature on child malnutrition also suggests that differences in levels of malnutrition depend on the sex of the child and the location of residence (Sahn and Stifel, 2002; Pal, 1999; Smith et al, 2004)(25).

However, this has not been explored in detail in Ethiopia. Other variables such as sex and age composition within the household, parental education levels, social capital, marital status, community characteristics, economic shocks and levels of food aid are also presented in the literature as determinants of children's nutritional status(26). Lack of knowledge of the

magnitude and direction of the impact of most of these variables in Ethiopia hinders development of effective policies and deployment of resources. It is vital to improve understanding of the socio-economic determinants of malnutrition in order to develop a more comprehensive policy approach(26).

Disaggregating by gender, the data indicates that girls were better off in 1999–2000 while males fared better in 1995–96 in terms of both wasting and severe wasting. A negative (but weak) correlation was found between child wasting and expenditure quintile for Ethiopia (MoFED, 2002a).The weak correlation may be because of a non-linear relationship(27).

When regional profiles are considered, the highest proportion of wasted children was observed in Gambella (13 percent), followed by Dire Dawa (12.3 percent), Afar (11.8 percent) and Tigray (11.7 percent). Dire Dawa was found to have the largest proportion of severely wasted children (3.1 percent) followed by Tigray (2.3 percent), and Amhara, Benishangul Gumuz and Somali with 2.2 percent each (MoFED, 2002a). MoFED (2002a) suggested that the deterioration of short-term malnutrition (as captured by wasting) in 1999-2000 could be attributed to both the decline in international aid, due to the war with Eritrea, and the drought which occurred at the same time(27).

Studies show that there is a strong relationship between a child's age, family size, birth interval and stunting. In communities that have little access to, low attitude and contact with, health care, children are more vulnerable to malnutrition as a consequence of inadequate treatment of common illnesses, low immunization rates, and poor antenatal care. Poor environmental sanitation, including insufficient safe water supply, also puts children at risk of infection which increases susceptibility to malnutrition. Infant and child care, along with household food security, adequate health services and a healthy environment are necessary preconditions for adequate nutrition(14).

Household economic welfare

Wealth/income (expenditure) of the household

Multiple studies acknowledge that an increase in household income/wealth is expected to reduce child malnutrition (Glewwe et al, 2002; Christiaensen and Alderman, 2004; Moen, 1993; Haider al no date) (3, 28, 29).

Haider et al, drawing on a study undertaken in Holetta woreda, Ethiopia) reported that child malnutrition (as measured by stunting) is significantly lower in households with superior quality cross bred cows than in those without. It was also shown that households with crossbred cows had a higher level of consumption of calories, protein and other nutrients(28). The higher consumption, they noted, was due to higher income brought about by the ownership of crossbred cows(28).

According to Christiaensen and Alderman (2004), sustained per capita income growth of 2.5 percent over a 15-year period could lead to a 3–6 percent decline in chronic malnutrition in Ethiopia. However, they argue, income growth alone might not be sufficient to alleviate child malnutrition as nutrition is also influenced by a number of other factors(3).

Similarly, Glewwe et al (2002) observed that a dramatic decline in poverty and child stunting was achieved in Vietnam due to rapid economic growth since 1986. They concluded that growth in household income, though not very large, had a positive impact on child nutrition in Vietnam during the 1990s. They also noted that, over time, child stunting declined within each quintile even after adjustment for change in income, suggesting that factors other than income growth led to improvement in child nutrition(29).

Studies in Ethiopia similarly finding a negative correlation between level of economic status and child malnutrition (stunting) include Getaneh et al (1998), Genebo et al (1999) and Yimer (2000)(30).

A total of 850 children aged 3-36 months study of SNNPR of Ethiopia in 1992,the prevalence of stunting ranged from 34.5 percent in households with high economic status to 47.3% in households with below average economic status(14).

Shocks

Shocks of different types, such as drought, are also important in influencing the nutritional status of children, particularly wasting (Hoddinott and Kinsey, 2001; Dercon and Hoddinott, 2003; Yamano et al, 2003; Alderman et al, 2002; Carter and Mallucio, 2003). Dercon and Hoddinott (2003) looked into the impactof shocks on health status using data from Ethiopia and Zimbabwe. They found that the impact of shocks within the household is not uniform, and that younger pre-schoolers were more adversely affected by shocks such as drought than older pre-schoolers.

Employment status of mothers/caregivers

Employment of the mother or caregiver may be expected to enhance accessibility of the household to income, which may in turn have a positive effect on the nutritional status of the child. This may be expected because such income is more likely to be controlled by the mother/caregiver and used to improve children's nutritional status. However, it may also be argued that employment of the mother/ caregiver may have a negative effect on children's nutritional status by reducing both infants' access to breastfeeding and time spent on childcare. Some empirical studies show that the mothers of the most malnourished children work outside their home, while others do not find any association between maternal employment and the nutritional status of the child (Abbi et al, 1991; Leslie, 1988)(31).

Ukwuani and Suchindran (2003) found that mothers' work in Nigeria reduced stunting in their children, but the expected positive effect of earning cash from work on childhood nutrition was less visible from the results(32). Using the 2000 Demographic and Health Survey (DHS) data for

Ethiopia, Girma and Genebo (2002) found no significant association between knowledge and employment status of the mother(33).

Household/individual characteristics and education

A growing number of studies recognize the important role that household/individual characteristics and parental levels of education play in shaping child nutritional outcomes.

Household characteristics/structure

Christiansen and Alderman (2004) found that larger family size results in better standardized height of children in Ethiopia. Their argument is that large families can benefit from economies of scale; both in time available for child care and in expenditure, and children are better raised due to accumulated parental experience. However, it is unlikely that this relationship holds indefinitely. They failed to indicate the optimum household size. Christiansen and Alderman noted that child nutrition status is not affected by the sex of the household head (14). Bronte-Tinkewa and De Jong (2004) found that in Jamaica living in a single-parent household and a cohabiting household increases the odds of stunting for children. Their analysis also indicates that children in single-parent, low-income families with siblings and low-income extended families with siblings are more likely to have low height-for-age, suggesting the importance of household structure in understanding children's nutritional outcomes (18).

Sex of child

A number of studies in Africa suggest that malnutrition among boys is consistently higher than malnutrition among girls (Christiaensen and Alderman, 2004; MoFED, 2002a; Glewwe et al, 2002; Svedberg, 1990; Sahn and Stifel, 2002). Sahn and Stifel (2002: 32) present three possible explanations (20).

The first is that there is a problem with the gender-specific standard for the African population, in a similar way to the inconsistencies noted regarding the weight-for-height curves for young

children (<2 years) in some African countries (Macfarlane, 1996). Secondly, girls are genetically more robust than boys. Finally, there is greater nutritional investment in young girls than boys apparently counterintuitive, since girls are frequently regarded as a 'poorer investment' asthey eventually marry and leave to join their husband's family. However, this difference may also be linked to girls' greater access to food through their gender-ascribed role in contributing to food preparation (28).

We may also note that the energy requirement is different for boys and girls (WHO, 1985), especially as boys are often expected to help with more energy consuming tasks while girls are frequently involved with chores within the household (12).

Other studies, for example by Pal (1999) in India, have found that the nutritional status of female children is better than that of male children (10).

Demographic and Health Survey of 2011, in Ethiopia, actually shows that girls are slightly less likely to be stunted than boys. This seems to be a fairly common finding, at least for nutrition in Africa (23).

Age of child

Weaning/feeding practices care and exposure to infection may also affect children's nutritional status at specific ages. Studies in Ethiopia have shown that older children are associated with increased malnutrition(Yimer, 2000; Genebo et al, 1999) (9).

A total of 850 children aged 3-36 months study of SNNPR of Ethiopia in 1992 to analyze the magnitude of chronic malnutrition at different ages, classified as stunted is low among infants (30.4%) while about half of all children aged 12-36 months are classified as stunted.

Birth interval of the child

As of 2007, Ethiopia's population has been growing at a rate of 2.6 percent per annum (CSA, 2007) (34). At this rate the total population will number 88.4 million by 2015. The majority of

the population (84 percent) lives in rural areas. This rapid population growth exacerbates critical gaps in basic health services, and in food and nutrition security (MOH, 2008) (35).

When pregnancies are closely spaced, it is often the case that the mother will have little time to regain lost fat and nutrient stores (ACC/SCN cited in Girma and Genebo, 2002). Child nutritional status is also expected to improve with higher birth spacing as the mother would get enough time for care and feeding. Studies showed that in most countries where DHS surveys have been conducted, children born less than 24 months after the previous child was born (a short birth interval) have a higher level of stunting (cited in Girma and Genebo, 2002) (33)

Birth order

Parents are expected to give less attention to older children when there is a new child who needs much attention and care. Studies have shown that stunting is rare in lower birth orders (2-3) and that higher birth order (5+) is positively associated with child malnutrition (cited in Girma and Genebo, 2002) (33).

Using DHS 2000 data for Ethiopia, Girma and Genebo (2002) found that first-born children are at a significantly higher risk of stunting than children of higher birth order. They argue that this may be because of mothers' low level of experience in the area of child care and feeding(33).

Household education

Various studies have concluded that parental education especially that of mothers is a key element in improving children's nutritional status (Christiaensen and Alderman, 2004; Moen, 1993; Yimer, 2000; Genebo et al, 1999). Glewwe (1999) investigated the mechanisms through which schooling results in better child nutrition. Glewwe identified three possible pathways:-

1. Direct teaching of nutrition and health knowledge in schools to future mothers;
2. Additional nutritional knowledge flowing from literacy and numeracy skills; and

3. Exposure and familiarity with modern society through school, thus encouraging the use of modern medicines.

The impact of mothers' schooling on child nutrition is not only through its effect on nutritional knowledge. A more educated mother is likely to have a higher income (which can directly affect her children's health and nutrition) and higher status and power in the household as well as the community, putting her in a better position to make decisions about her children's needs (Moen, 1993). The literature also indicates that where the general level of education of a community is low which is the case in our study higher levels of education of female and male members of the household can indirectly influence child nutritional status (Basu and Foster, 1998; Gibson, 2001).

Christiaensen and Alderman (2004) found that the effect of maternal education is about twice as important as that of paternal education. They showed that completion of primary school by at least one adult female in a household resultin a 6–11 percent decline in stunting, while education of a male adult reduces child stunting by only 2–8 percent.

2.4 Conceptual framework of the determinants of child undernutrition / factors affecting KAP of mother

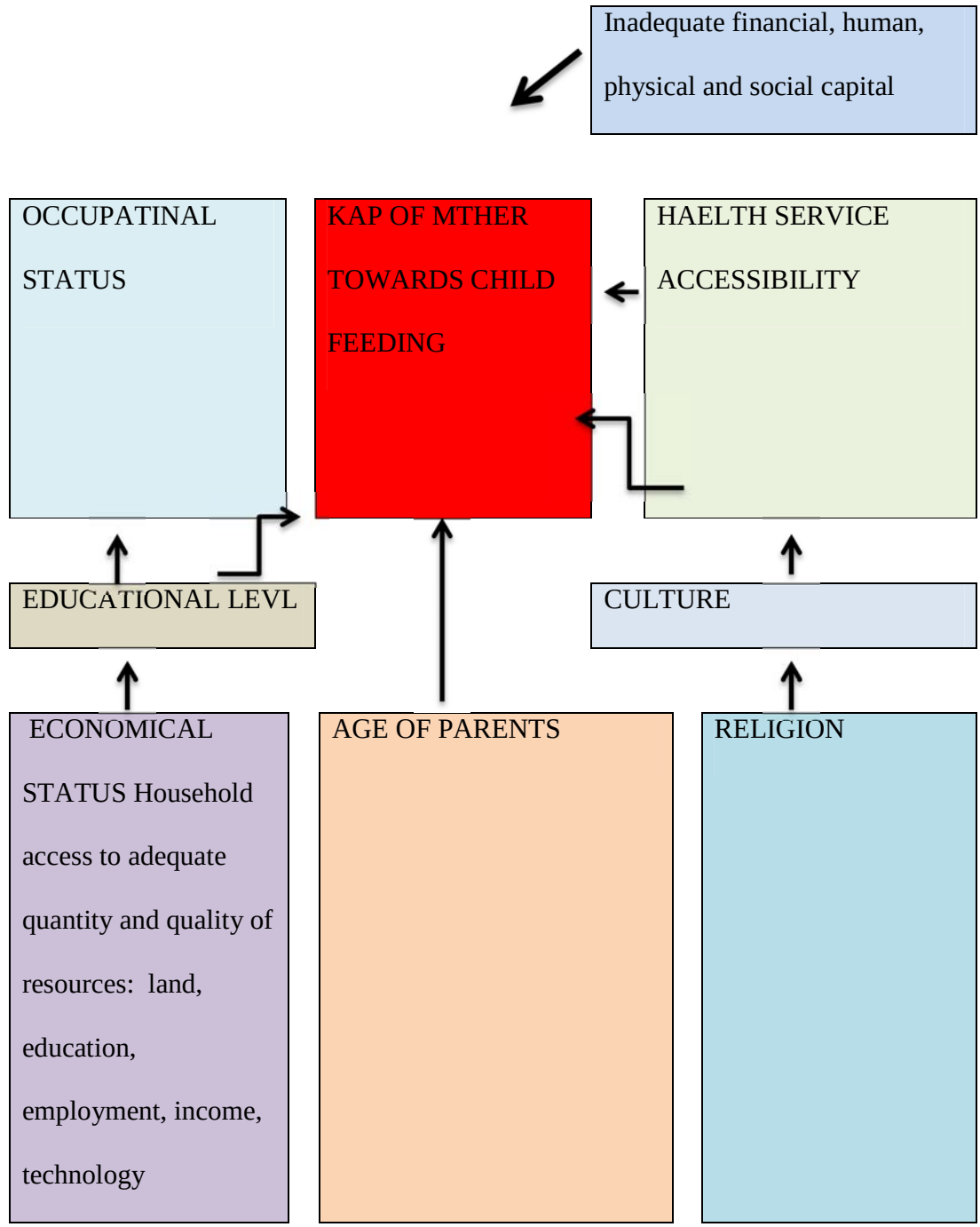

Figure 1 showing Conceptual framework of the determinants of child undernutrition
Source:Adapted from UNICEF, 1990

CHAPTER THREE

3. OBJECTIVES

3.1 General Objective

To assess knowledge, attitude and practice (KAP) of mothers towards feeding their five und children in a rural community Kellecha Tikka Kebele, of Sebeta Awas district, Surrounding Finfine special Zone, Oromia Region, 2014 G.C

3.2 Specific Objectives

1. To assess the knowledge of mothers' to feed their under five children in Kellecha Tikka Kebele.
2. To assess the practice of mothers to feed their under five children in Kellecha Tikka Kebele.
3. To assess the attitude of mothers towards feeding their under five children in Kellecha Tikka Kebele.
4. To assess the relationship of socio-demographic characteristic of mother and KAP

CHAPTER FOUR

4. METHODOLOGY

4.1 Study Area and Period:

The study area in Kellecha Tikka Kebele, Sebeta Awas district, Surrounding Finfine Special Zone located 50 km South West of Addis Ababa. The area is rural and people exist mainly subsistence farming. The total population is 7339 and the study was conducted from March to May, 2014.

4.2 Study Design:

A cross-sectional study design was conducted to determine the level mothers' knowledge, attitude and practice and their socio-economic/demographic characteristic in Kellecha Tikka Kebele, Sebeta Awas district, Surrounding Finfine Special Zone.

4.3 Population

4.3.1 Source Population:

All households having children aged 6 months to five years old in rural Sebeta Awas district were included.

4.3.2 Study Population:

All households having children aged 6 months to five years old living in Kellecha Tikka Kebele were included in the study

4.3.3 Sampling procedure

Kellecha Tikka Kebele of Sebeta Awas district was selected because this Kebele accessible than other Kebeles to road suitable mechanized vehicles. All households in selected Kebele having children in age range of 6 months to five years were included in the study

4.3.4 Sample Size Determination:

The sample size required for the study was calculated using the formula to estimate a single population proportion.

$n = [(Z\alpha_2)^2 \, p \, (1-p)] \, D/d^2$

p= 0 .414 (prevalence of stunting is higher value than rest, 2011 DHS or CAS)

q= 1- 0.414= 0.586

Z= 1.96

d=0.05

Therefore n_o = 373,

The design effect was 1.6 and the non-response rate 10% will be added the final 'n' was **634**

4.3.5 Sampling Technique:

A random sampling technique was used. The Kebele was subdivided into 15 Gott and six Gott were selected purposefully; from each goot the mothers who have children between age of 6 months and 5 years was selected by lottery method.

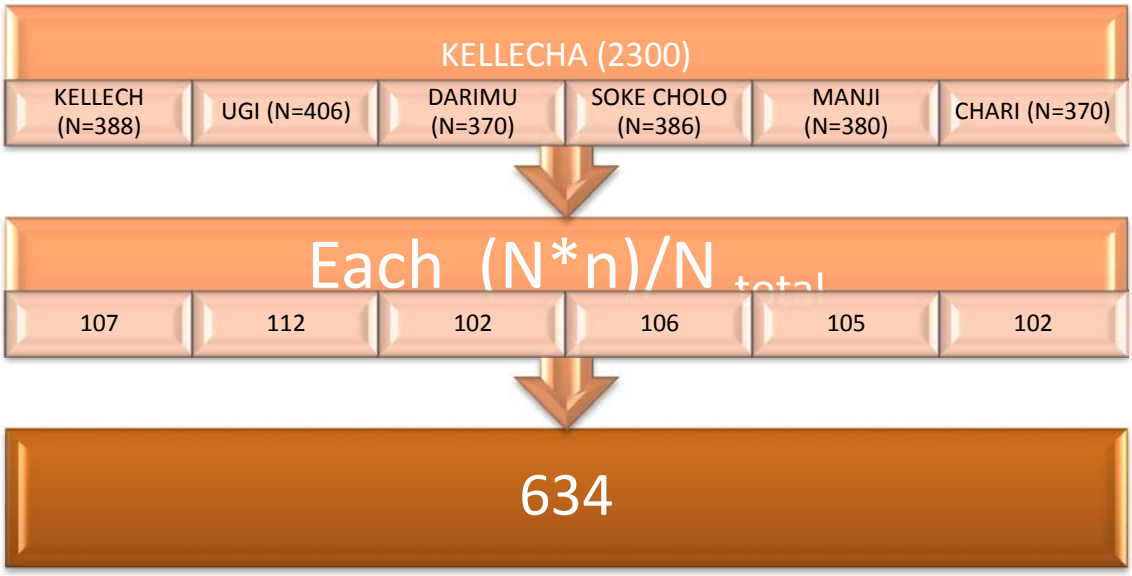

Figure 2 showing the sampling technique of the study population of the Kellecha Tikka community, in 2014

4.4 Variables

i. Dependent variable

- ☞ Knowledge
- ☞ Attitude
- ☞ Practice

ii. Independent variables

- ☞ Age of mother
- ☞ Religion
- ☞ Occupational status
- ☞ Educational status
- ☞ Marital status
- ☞ Economic status

4.5 Inclusion and exclusion criteria

Inclusion criteria:

- ☞ All mothers that have children age of between six months and five years and live in Kellecha Tikka Kebele

Exclusion criteria:

- ☞ People who are not resident
- ☞ Family who are not volunteer
- ☞ Families who have no children age of between six months and five years.

4.6 Operational definition

Knowledge: - all the information, facts, truths, and principles learned throughout time about child feeding, experience of feeding children

Attitude: - personal view of something: an opinion or general feeling about feeding of child

Practice: - do something as custom: to do something as an established custom or habit of feeding child.

Sufficient Knowledge about child feeding:

When the respondent woman identified correctly at least five correct or true statements out of seven statements prepared about child feeding knowledge (Eckstein, 2009) (36).

Good practice about child feeding:

When the respondent woman identified correctly at least eight correct or true statements out of ten statements prepared about child feeding practice (Eckstein, 2009) (36).

Good Attitude towards child feeding:

When the respondent woman reported accepting attitude to atleast five of the prepared statements of favorable attitude towards child feeding (Eckstein, 2009) (36).

4.7 Data Collection and management:

The data was collected at the house-to-house level from all mothers of children using a pre-tested on 5% of the sample population and structured questionnaire of the study community. A questionnaire was prepared which asked several socio-economic questions and question related to mothers' feeding their children knowledge, attitude and practice. The questionnaire was first prepared in English and then was translated into Afan Oromo by expert who was fluent in both language and then translated back to English by another person to compare accuracy and consistency with original questionnaire.

The enumerators/ interviewers were given intensive training on how to administer the questionnaires and information was collected under close supervision by trained supervisors and principal investigator in order achieve reliable and valid data. At the end of each day the completed questionnaire was checked to ascertain that all questions were answered correctly and consistently.

Information on age, socio-demographic characteristic, knowledge, attitude and practice of mothers feeding their children were collected.

Age was recorded in birth dates by asking the mother of the child and if the exact date is not known the mother was asked the known local events calendar by the year and that was converted to months.

4.7.1 Data Analysis:

The data was manipulated and analyzed by using Epi.info version 3.4.3 and SPSS version 16.0. EPI-data Version 3.02 and was exported to SPSS Version 21 for analysis. Crude and adjusted odds ratios from bivariate and multivariate logistic regression were used to measure associations.

4.8 Ethical Considerations:

The research protocol was approved by the Institutional Research Ethics Review Committee on the Black Lion Hospital campus of Addis Ababa University. The permission was taken from woreda health bearue and chairman of the Kebele. The verbal informed consent was taken from the head of household and the mother was informed

4.9 Dissemination of the study

The result of the study will be useful to assess the knowledge, attitude and practice (KAP) of mothers feeding their children in a rural community Kellecha Tikka Kebele, of Sebeta Awas district, Surrounding Finfine special Zone, Oromia Region, and the federal ministry of health (FMoH), Addis Ababa regional health bureau and Addis Ababa University.

CHAPTER FIVE

5. RESULT

Of 634 mothers who were eligible for the study 597 mothers were volunteer to participate and 36 (6%) refused to participate.

5.1 SOCIO-DEMOGRAGHIC AND ECONOMIC CHARACTERISTIC

Of 597 children participated in the study 420 (70.4%) were males and 177 (29.6%) were females. When the children grouped according to their age 176 (29.5%), 93(15.6 %), 99 (16.6%), 102 (17.1%) and 127 (21.3%) were 6-12, 13-24, 25-36, 37-48 and 49-60 months respectively.

Of total mothers' interviewed most of them; 283 (47.4%) were aged 21-30 followed by 234 (39.2%) aged 31-40 years. The rest 35 (5.9%) and 45 (7.5%) were aged 10-20 and more than 41 years old respectively. Most of the mothers participated in the study; 238 (40%) were illiterate and 123 (21%), 206 (34.5), and 30 (5%) can read and write, learns elementary school, secondary school and College/University respectively. The educational status of the participator's husband were reported as illiterate 171 (28.7%), can read and write 302 (50.6%), learns elementary school 94 (15.7%), learns secondary school 17 (2.8%) and learns College/University 13 (2.2%)The marital status of the respondents during the study period was reported as married 508 (87.1%), divorced 61 (9.2%), widowed 28 (2.0%).Regarding religion 540 (90.5%) were Orthodox Christian followers, 3 (.5%) were Muslim followers, 18 (3.0) were Protestant followers, 12 (2.0%) were Catholic followers and 24 (4.0%) were other religion followers. The two main ethnicity that were living in the study area during the study period 590 (98.8%) were Oromo and 4 (0.7%) were Amhara; the rest 3 (0.5%) were other ethnic group. See table 1

Table 1 showing the socio demographic and socio economic characteristics of Kellecha Kebele, Sebeta Oromia Region, from March to April 2014

Variables		**Frequency**	**Percent**	**Total**
Age of mother	10-20	35	5.9	
	21-30	283	47.4	
	31-40	234	39.2	
	>41	45	7.5	
	Total	597	100.00	
Educational level of mother	Illiterate	238	40	
	Read and write	123	21	
	Elementary	206	34.5	
	Secondary school and above	30	5	
	Total	597	100.00	
Educational level of father	Illiterate	171	28.7	
	Read and write	302	50.6	
	Elementary	94	15.7	
	Secondary	30	5	

	school and above			
	Total	597	100.00	
Marital status	Married	508	87.1	
	Divorced	61	9.2	
	Widowed	18	3.02	
	Single	10	1.68	
	Total	597		
Religion	Orthodox Christian	540	90.5	
	Muslim	3	0.3	
	Protestant	18	3	
	Catholic	12	2	
	Other	24	4	
	Total	597	100.00	
Occupational status of mother	House wife only	241	40.4	
	Farmer	253	42.4	
	Merchant	57	9.5	
	Private work	37	5.7	
	Daily worker	19	2	
	Total	597	100.00	

Occupational status of father	Famer	557		93.3		
	Merchant	14		2.3		
	Private worker	8		1.3		
	Daily laborer	5		0.8		
	Other	3		0.5		
	Total	597		100.00		
Ethnic group	Oromo	590		98.8		
	Amara	4		0.7		
	Other	3		0.5		
	Total	597		100.00		
Domestic animal Do you have…?		Yes	**No**	Yes	No	Total
	Ox	535	**62**	89.6	10.4	597 (100%)
	Cow	510	**87**	85.4	14.6	597 (100%)
	Hen	509	**88**	85.3	14.7	597 (100%)
	Goat/sheep	363	**234**	60.7	39.3	597 (100))
	Beehives	350	**274**	54.1	45.9	597 (100%)

From all 597 interviewed mothers 33 (5.5%) were head of the house and males head were 564 (94.5%).

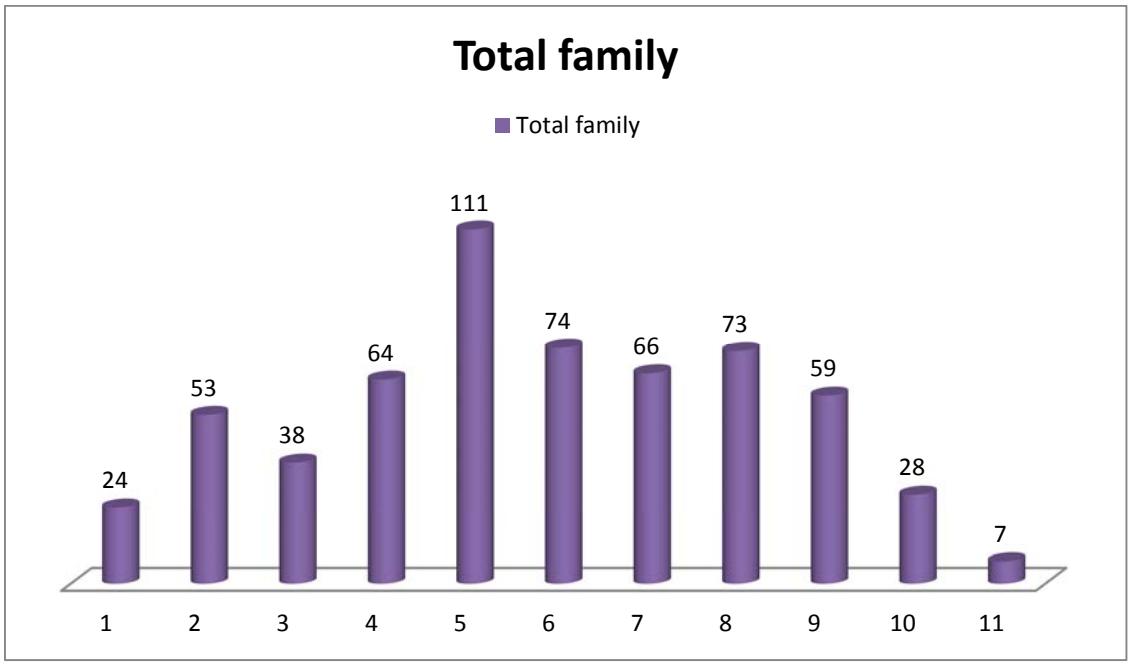

Figure 3 showing the total family size of Kelecha Tikka community, Oromia region who participated in the assessment of KAP of mothers towards child feeding of age 6-60 months from March to April 2014.

From all 597, 296 (49.6%) had one child of age less than 5 years, 209 (35.0%) had two children of age less than five years, 92 (15.4%) had three and above children of age less than five years old.

According to the result the main crop production in the study area was Teff accounts 513 (85.9%) of the people. The rest of the people; 35 (5.9%) cultivate mainly wheat, 22 (3.7%) cultivate chick peas and 27 (4.5%) cultivate the other crops. From total of 597 mothers interviewed only 193 (32.3%) save Birr in the bank and the majority 404 (67.7%) did not save Birr in bank.

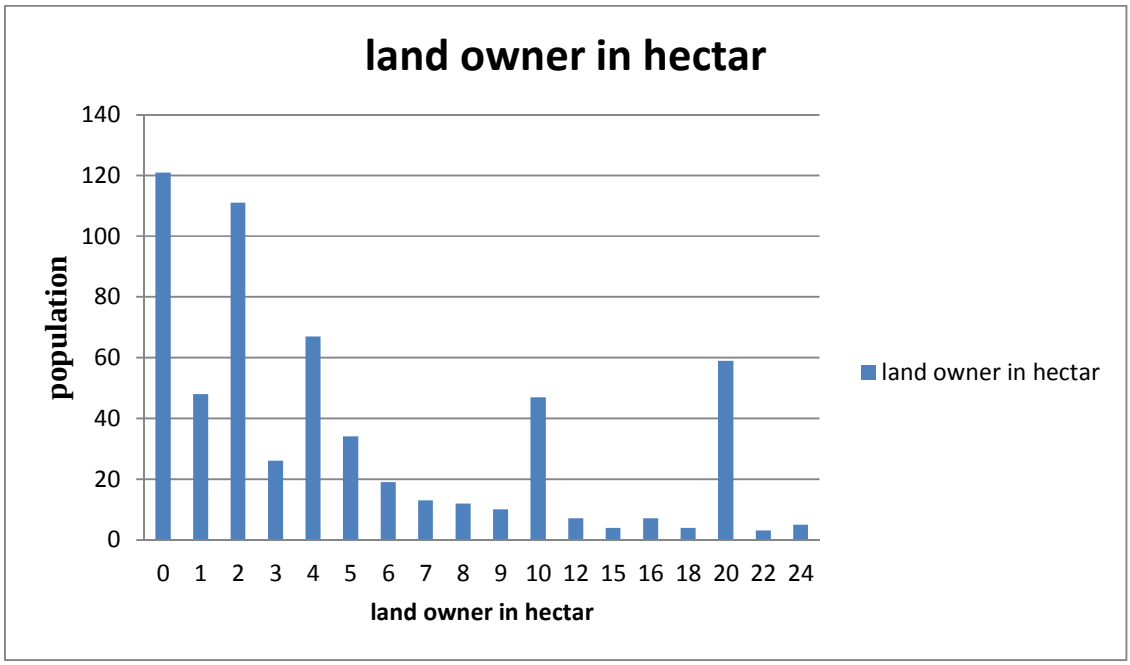

Figure 4 showing the land owner of Kelecha Tikka community, Oromia region who participated in the assessment of KAP of mothers towards child feeding of age 6-60 months from March to April 2014

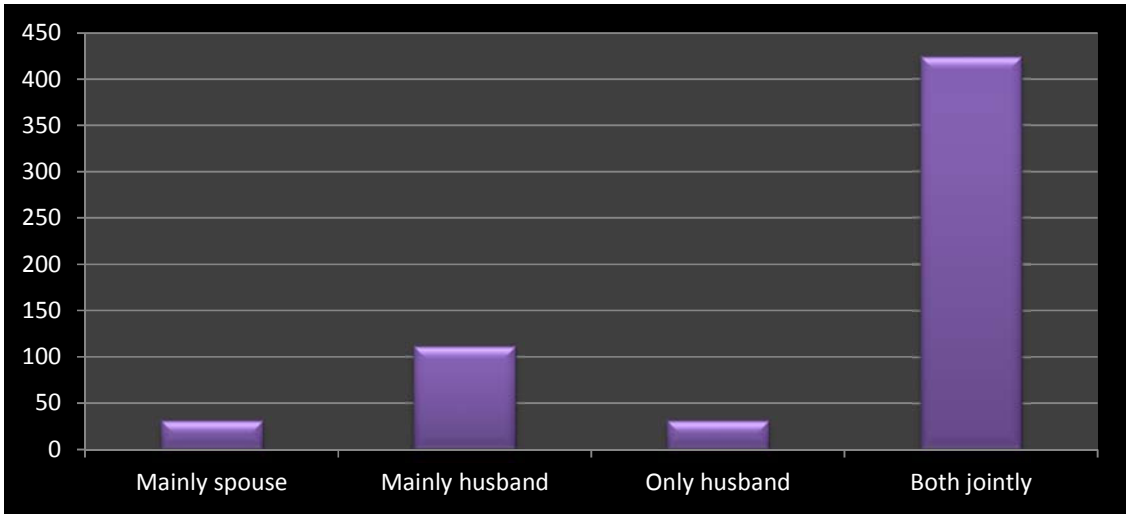

Figure 5 showing the showing who will determine the resource used in the home, of Kelecha Tikka community, Oromia region who participated in the assessment of KAP of mothers towards child feeding of age 6-60 months from March to April 2014.

Of the total people of 597 491 (82.2%) had their own latrine during the study period and 106

(17.8%) had no latrine.

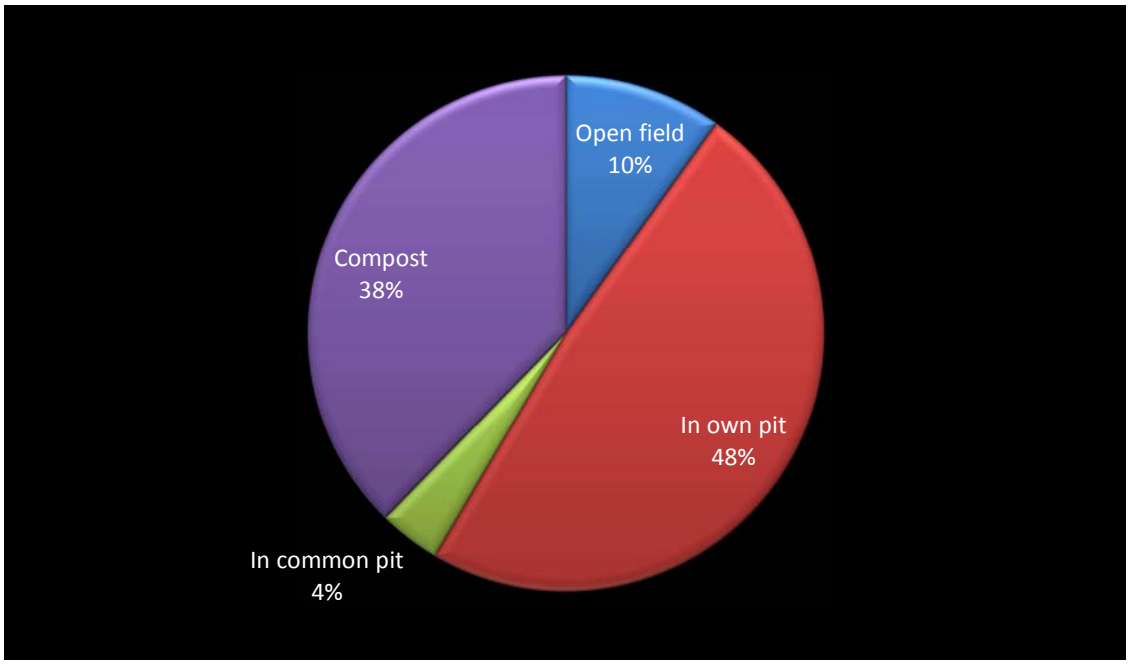

Figure 6 showing the showing how use pit, of Kelecha Tikka community, Oromia region who participated in the assessment of KAP of mothers towards child feeding of age 6-60 months from March to April 2014.

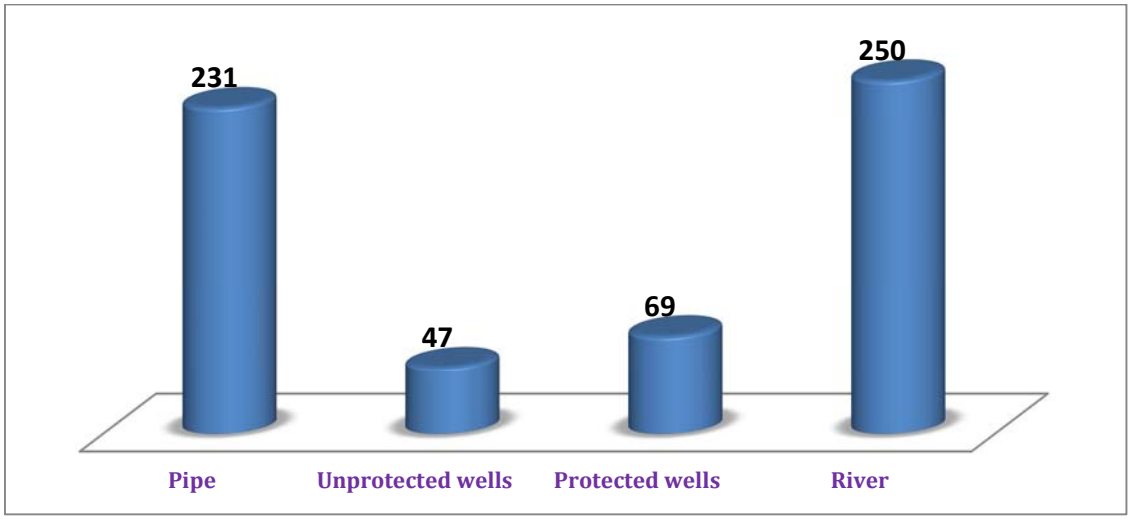

Figure 7 showing the sources of water used in Kellecha Kebele, in April-March 2014

5.2 Knowledge, Attitude and Practice of mother on Child Feeding

The questions were prepared to assess the knowledge of mother on about child feeding which was prepared as “know the advantage of breast feeding, age of starting additional food, age for

exclusive breast feeding, advantage of colostrum, prepare food for the child from different crops and know the balanced diet." Based on the result the level of knowledge of respondents were classified as poor knowledge and sufficient knowledge, see table 2 below

Table 2 showing the level of mothers' knowledge about child feeding in Kellecha Kebele, Sebeta Oromia Region, from March to April 2014

Level of knowledge	Frequency	Percent
Poor knowledge	339	56.8
Sufficient knowledge	258	43.2
Total	597	100.00

Note: from the operational definition **Sufficient Knowledge about child feeding** defined as**:**

1. When the respondent woman identified correctly at least five correct or true statements out of seven statements prepared about child feeding knowledge (Eckstein, 2009) (36).

From all mother of 597 that participated in the study 578 (96.6%) had knew that exclusive breast feeding has advantage for their children during the first six months of age and 18 (3.2%) said that EBF has no advantage for their children

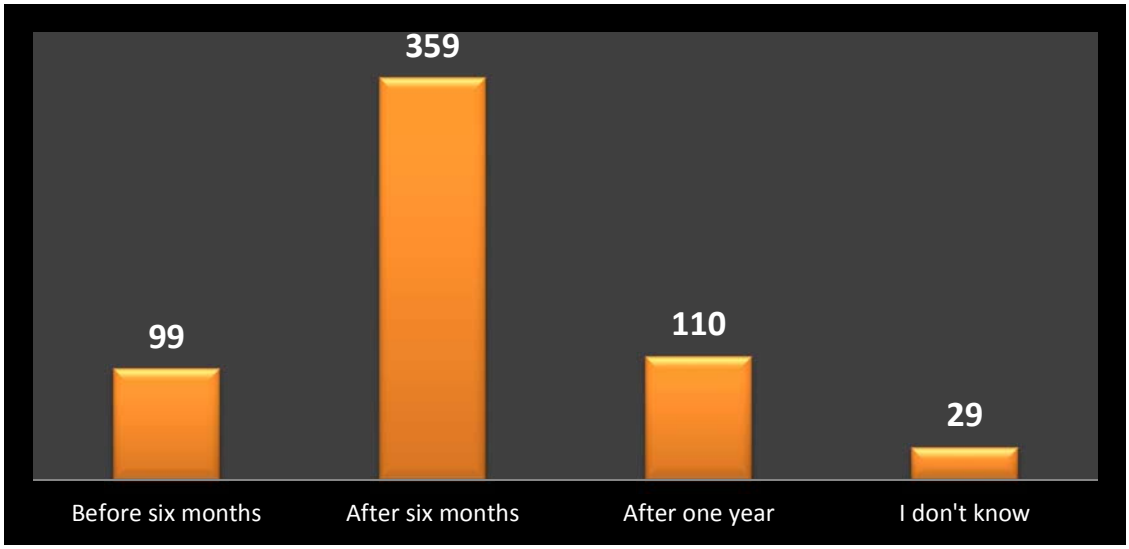

Figure 8 that showing age of starting additional food among Kellecha Tikka community who participated in the study of nutritional status of children aged 6-60 months old, May 20141

Table 3 showing age of EBF, know advantage of colostrum, know balanced what balance diet, for the assessment of KAP of mother towards child feeding in Kellecha Tikka Kebele, Sebeta, Oromia region, from March- April 2014

Variables		Frequency	%
Age of EBF	For six months	325	54.4
	For three months	75	12.4
	For one year	112	18.8
	I don't know	85	14.2
	Total	597	100.00
Know Advantage of colostrum?	Yes	371	62.1
	No	226	37.9
	Total	597	100.00
Know balanced diet?	Yes	571	95.6
	No	26	4.4
	Total	597	100.00
Know Advantage preparing food from different crops?	Yes	581	89
	No	67	11
	Total	597	100.00
Give food/fluid before six months of age?	Yes	585	98
	No	12	2
	Total	597	100.00

The questionnaires contained different questions to assess the level of the maternal attitude towards feeding their children. To assess the condition the principal investigator prepared questions that include advantage of EBF during the first six months of age, was the family had given priority for their children during feeding, when they gave priority, what prevented them to prepare food from different crops; weather family had been given special concern for child feeding, when they breast fed their children and where to take their child if sick. Based on the respondents' rate the attitude of the mother classified as poor and good attitude see table 4 below.

Table 4 showing the level of mothers' attitude about child feeding in Kellecha Kebele Sebeta, Oromia region 2014

Level of attitude	**Frequency**	**Percent**
Poor attitude	318	53.3
Good attitude	279	46.7
Total	597	100.0

Note: from the operational definition **good attitude towards child feeding** defined as:

2. When the respondent woman reported accepting attitude to atleast five of the prepared statements of favorable attitude towards child feeding (Eckstein, 2009) (36).

Of the total 597 respondents 266 (44.6%) reported EBF is good during the first six months of age and 281 (47.1%) reported as EBF during the first six months of age is not good for the children. On the other hand from the total respondents, 597, majority of them 572 (95.8%) gave the priority for their children to eat their food and only 25 (4.2%) did not give priority for their children to eat. From the respondents that gave the priority for their children, 572, 310(54.2%) give the priority always for their children, 172 (30%) give some times priority for their children and the rest 90 (15.8%) give the priority for their children if scarcity of food in the home.

The question was prepared to assess what prevent the respondents from preparing mixed food from different crops. From the total of 597, 177 (29.7%) did not prepare mixed food due to scarcity, 309 (51.8%) because of lack of knowledge and 111(18.6%) said that because preparing food from different crops is not important for the children.

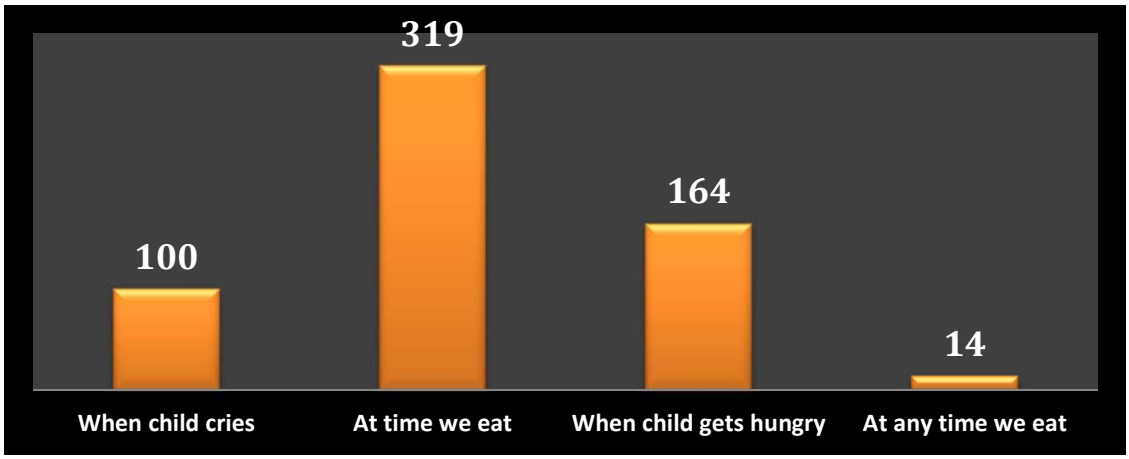

Figure 9 that showing when the child feed breast/food among Kellecha Tikka community who participated in the study of nutritional status of children aged 6-60 months old, May 20141

From all participants of 597, 453 (75.9%) said feeding of the children need special concern and 107 (17.9%) said feeding of the children do not need special concern and 37 (6.2%) do not know whether child feeding need especial concern or not.

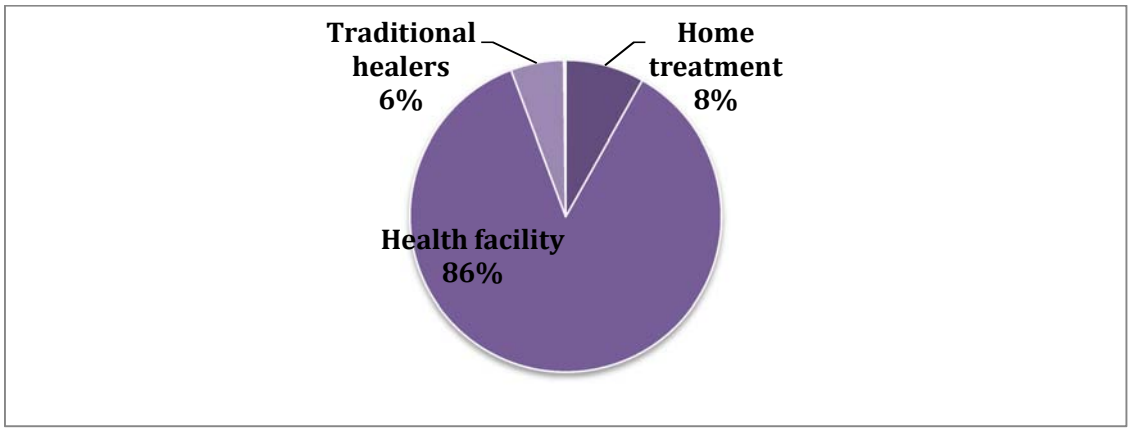

Figure 10 that showing place where child treated when get sick among Kellecha Tikka community who participated in the study of nutritional status of children aged 6-60 months old, May 20141

From total of 597 respondents 206 (34.5%) visited health institution 1-5 times the child get sick and 391 (65.5) did not visit the health facility.

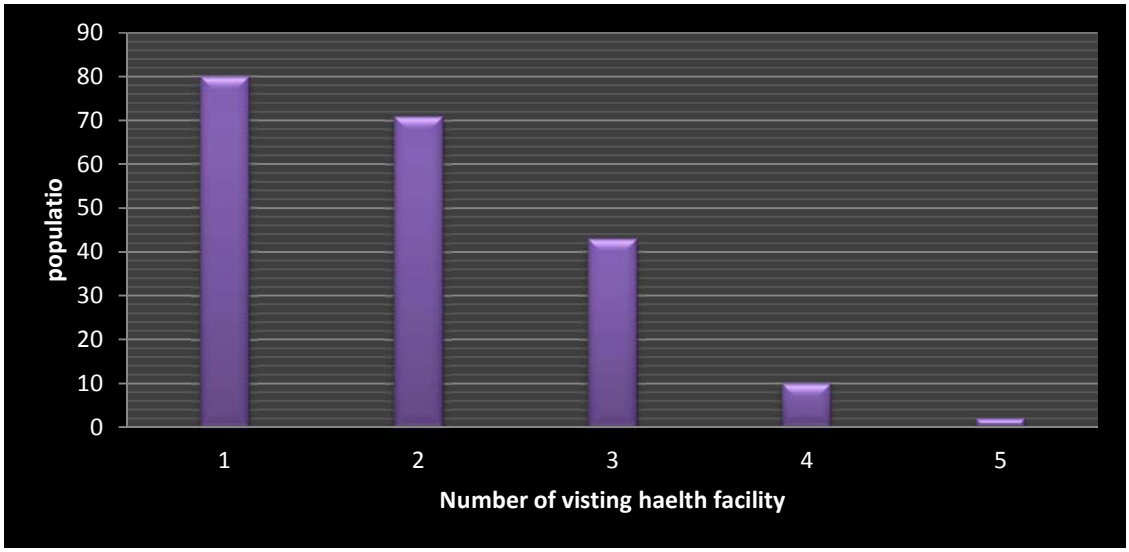

Figure 11 that showing number of health facility visiting among Kellecha Tikka community, May 20141

The principal investigator also prepared and adopted different questions to assess the practical level of the respondents which include do you give food/fluid for your child before six months age, if you give what, squeeze and throw colostrum, most frequently used food in home to feed their child, preparing food from different crops, what do they use to feed child, who usually follows child feeding, wash their hands before feeding their children and the number of feeding children per day. Based on this the result shows the respondents level of practice classified as poor and good practice, see table 5

Table 5 showing the level of mothers' attitude about child feeding in Kellecha Kebele, May 2014

Level of practice	Number	Percent
Poor practice	271	45.4
Good practice	326	54.6
Total	597	100.00

Note: from the operational definition good practice about child feeding defined as:

3. When the respondent woman identified correctly at least eight correct or true statements out of ten statements prepared about child feeding practice (Eckstein, 2009) (36)

From the total of 597, 585 (98%) gave food or liquid before six months age and only 12 (2%) had not been given food or liquid. From 585 that gave liquid or fluid before six months of age 55 (9%) gave the water, 274 (47%) gave the butter, 235 (40%) gave the milk and 26 (4%) other food or liquid for their children before six months of age.

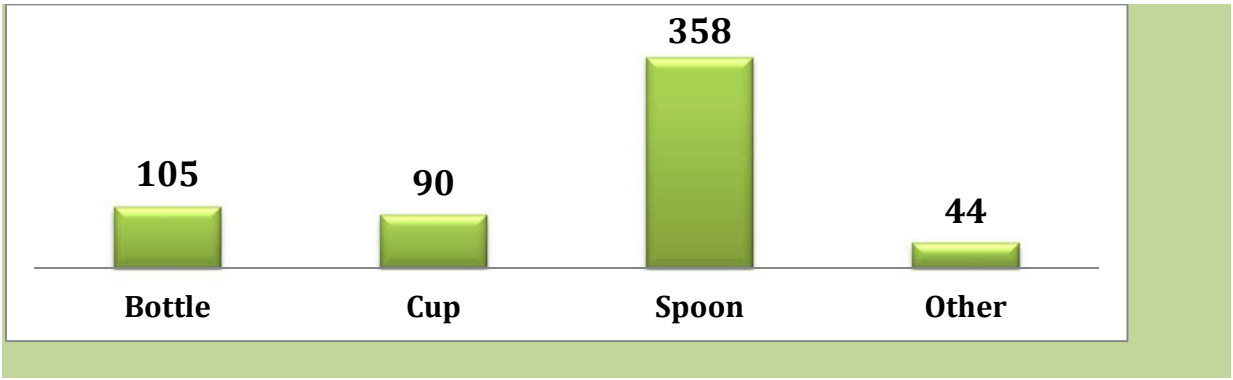

Figure 12 that showing number of health facility visiting among Kellecha Tikka community who participated in the study of nutritional status of children aged 6-60 months old, May 20141

From the total of 597, 572 (95.8%) usually taking care of child feeding were mothers followed by house maid which were 13(2.2%), the father accounted 7 (1.2%), 1 (0.2%) were sister and 3 (0.5%) were grandmother who taking care for their children feeding.

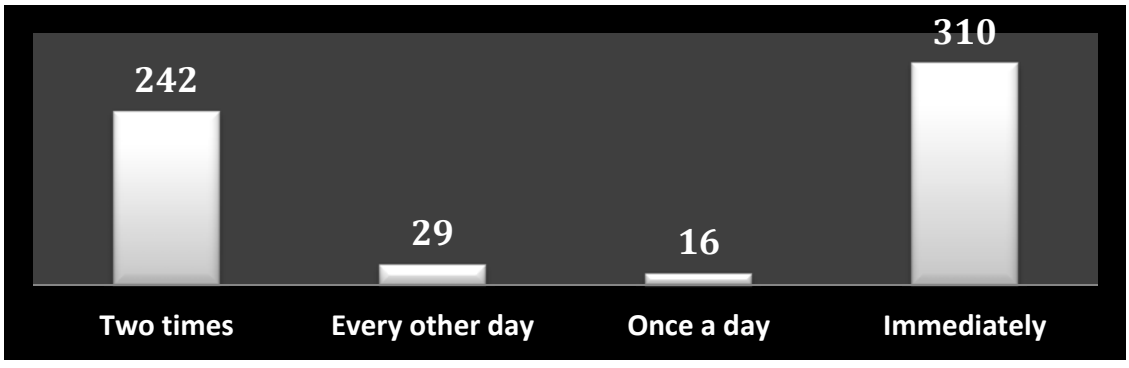

Figure 13 that showing number of health facility visiting among Kellecha Tikka community who participated in the study of nutritional status of children aged 6-60 months old, May 20141

From total of 597 mothers interviewed, 582 (97.5%) washed their hands whenever feed their children and 15 (2.5%) didn't wash their hands whenever feed their children.

Table 6 showing fever, respiratory disease and measles among under five children of Kellecha Tikka Kebele, Sebeta, Ethiopia

	Variables					
	Fever		Respiratory disease		Measles	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	49	8.2	51	8.5	68	11.4
No	433	72.5	452	75.7	388	65.0
I don't know	115	19.3	94	15.7	141	23.6
Total	597	100.00	597	100.00	597	100.00

5.3 Associated factors that affect mothers' KAP of child feeding

5.3.1 Bivariate assessment of Knowledge and associated factors

The mothers of age 31-40 were about two times more knowledgeable than mothers of age greater than 41 significantly at P-value of 0.030, COR 2.105, and CI (1.077, 4.117), see the table below. The educational status of the mother mothers who learnt elementary school was 2 times more knowledgeable than mother who learnt secondary school. The marital status of the mother had no relationship with the knowledge of the mothers. The relationship between the occupational status of mothers and knowledge of the mother when the daily worker kept constant; the house wife only and the farmers were more knowledgeable than daily worker, the merchants were less likely knowledgeable than daily worker and the private workers were two times more knowledgeable

than daily workers with COR (CI= 95%) 1.841, (1.314, 2.579), 1.835 (1.319, 2.551), 0.411 (0.209, 0.806), 2.222 (1.091, 4.527) respectively. There was strong association between the religion and the knowledge of the mothers (crude odd ratio). The Orthodox Christian followers were 4 times more knowledgeable than other religion followers' mothers significantly at P-value 0.005 with the COR of 4.669 and CI at 95% (1.593, 13.685).

The catholic followers were 5 times more knowledgeable than other religion followers significantly at P- value of 0.027, COR 5.750 and CI = 95% (1.218, 27.138). There was no association between the ethnicity and the knowledge of the mothers, see table 6

5.3.2 Multivariate analysis of knowledge and independent factors

The occupational status was associated with the knowledge of the mothers. Merchants were less likely knowledgeable than daily worker at P-value of 0.017, AOR 0.213, and CI=95% (0.059, 0.763). The orthodox Christian and Catholic followers were less likely knowledgeable than other religion at P-value of, AOR (CI=95%) 0.002, 0.145 (0.029, 0.730)* and 0.019, 0.177 (.059, 0.531)*respectively, see table 7

Table 7 showing the Socio-demographic determinants of knowledge of mothers towards feeding Kellecha Tikka Kebele, Sebeta, Ethiopia March to April 2014 (n= 597).

		Level of knowledge			
	Sufficient	Poor			
	Number (%)	Number (%)	COR (95% CI)	P-value	AOR (CI 95%)
Age			.		

10-20	19(54.5%)	16 (45.7%)	1.684 (.679,4.180)	0.261	0.564 (.217, 1.463)	
21-30	176 (62.2%)	107 (37.8%)	1.216 (.625 2.364)	0.564	0.906 (.456, 1.799)	
31-40	114 (48.7%)	120 (51.3%)	**2.105 (1.077, 4.117)***	.030	0.507 (.254, 1.014)	
>41	30 (66.7)	15 (33.3)	1	.028		
Educational stat.			0			
Illiterate	106 (44.5)	132 (55.5%)	2.208 (0.945, 5.160)	0.067	0.499 (0.206, 1.207)	
Read and write	44 (35.8)	79 (64.2%)	1.532 (.629, 3.727)	0.347	0.756 (0.300, 1.909)	
Elementary school	100 (48.5%)	106 (51.5%)	**2.594 (1.104, 6.095)***	0.029	0.454 (0.186, 1.109)	
Secondary school and above	8 (26.7%)	22 (73.3%)	1			
Marital status						
Married	224 (44.1%)	284 (55.9%)	0.789 (0.368, 1.689)	0.541		

Divorced	20 (32.8%)	41 (67.2%)	0.488 (0.196, 1.216)	0.124	
Widowed	14 (50%)	14 (50%)	1		
Occupational status					
House wife only	158(65.6%)	83 (44.4%)	**1.841(1.314, 2.579)***	.000	0.385 (0.111, 1.335)
Farmer	122(48.2%)	131 (51.8%)	**1.835 (1.319, 2.551)***	.000	0.766 (0.220, 2.664)
Merchant	36 (75%)	12 (25%)	**0.411 (0.209, 0.806)***	.010	**0.213 (0.059, 0.763)***
Private work	13 (38.2%)	21 (61.8%)	2.222 (1.091, 4.527)*	.028	1.140 (0.279, 4.663)
Daily worker	11 (52.4%)	10 (47.6%)	1		
Religion					
Orthodox Christian	298(55.2%)	242 (44.8%)	**4.669 (1.593, 13.685)***	0.005	**0.177 (.059, 0.531)***
Protestant	12 (66.7%)	6 (33.3%)	2.875 (0.678, 12.194)	.152	0.300 (0.068, 1.316)
Catholic	6 (50%)	6 (50%)	5.750 (1.218, 27.138)	.027	**0.145 (0.029,**

					0.730)*
Other	23 (83.3%)	4 (16.7%)	1		

Note: * is p < 0.05

5.3.3 Bivariate analysis of practical level and associated factors

There was no association between the age of the mothers and practical level of the mother. The educational status of the mother, mother who could read and write were less likely practical than secondary and above. The marital status of the mother of did not affect the practical level of the mother for child feeding. The private worker and the daily worker were less likely practical level than house wife only worker mothers with the P-value, COR, CI 95% of.004, 0.326 (0.153, 0.694) and 0.006, 0.123, (0.027, 0.548) respectively. The protestant followers were less likely knowledgeable than other religion followers at P-value of 0.024, COR of 0.082, CI 95% (0.009, 0.724). There was no significant association between the ethnicity and the practical level of the mothers. See table 8 below

5.3.4 Multivariate analysis of practical level and associated factors

In multivariate analysis the mother who can read and write was less likely good practice than that learnt secondary school and above. The protestant followers had best practice towards child feeding than other religion followers. See table 8 below

Table 8 showing the Socio-demographic determinants of practice of mothers towards feeding Kellecha Tikka Kebele, Sebeta, Ethiopia Nov–June 2014 (n= 597).

	Level of practice		
	Sufficient practice	Poor practice	

	Number (%)	Number (%)	COR (CI=95%)		AOR (95% CI)	
Age						
10-20	22 (54.3%)	13 (45.7)	0.809(.327,2.145)	.646		
21-30	176 (62.2%)	107 (37.8%)	1.832 (0.969, 3.463)	.062		
31-40	114 (48.7%)	120 (51.3%)	1.771 (0.929, 3.377)	.083		
>41	26 (57.8)	19 (42.2)	1			
Educational status						
Illiterate	111 (46.6%)	127 (53.4%)	1.510 (0.689, 3.310)	0.304	.781 (0.346, 1.766)	
Read and write	94 (76.4%)	29 (23.6%)	**5.59 (2.390, 13.116)***	0.00	**.217 (0.090, 0.524)***	
Elementary school	110 (53.4%)	96 (46.6%)	1.979 (0.897, 4.367)	0.091	.558 (0.245 ,1.274)	
Secondary school and above	11 (36.7%)	19 (63.3%)	1			
Marital status						
Married	265	243 (47.8%)	0.606 (0.274,	.215		

	(52.2%)		1.338)		
Divorced	43 (70.5%)	18 (29.5%)	1.327(0.514,3.42)	0.559	
Widowed	18 (64.3%)	10 (37.7%)			
Occupational status					
House wife only	105 (43.6%)	136 (56.4%)	1		
Farmer	112 (44.3%)	141 (55.7%)	1.082 (0.781, 1.499	0.636	
Merchant	16 (33.3%)	32 (66.7%)	1.735 (0.930, 3.235)	0.083	
Private work	24 (70.6%)	10 (29.4 %)	**0.326 (0.153, 0.694)***	.004	
Daily worker/ laborer	13 (86.7%)	8 (13.3%)	**0.123 (0.027, 0.548)***	.006	
Religion					
Orthodox Christian	227 (42%)	313 (58%)	1.930 (0.842 ,4.424)	0.120	0.586 (0.261, 1.312)
Protestant	17 (94.4%)	1 (5.6%)	**0.082 (0.009, 0.724) ***	0.024	**12.892 (1.462, 113.640)***
Catholic	11 (91.7%)	1 (8.3%)	0.127 (0.014,	.067	8.072 (0.881,

			1.151)		73.939)
Other	16 (58.3%)	11 (41.7%)	1		

*p<0.05

5.3.5 Bivariate and Multivariate analysis of level of attitude and associated factors

According to this result there were no significant associations between age of mothers, educational status, religion, ethnicity and marital status of the mothers and attitude of the mothers towards child feeding. The only factor that had negative crude association with the attitude of the mother was the occupational status of the mothers. The mothers who were worked as house wife only had less likely attitude towards child feeding than governmental worker mothers at P-value of 0.035, COR 0.701 and CI of 95% of (0.504, 0.975). See table 9 below.

In multivariate analysis there were no associated factors and level of attitude.

Table 9 showing the Socio-demographic determinants of attitude of mothers towards feeding Kellecha Tikka Kebele, Sebeta, Ethiopia March-April 2014 (n= 597).

	Level of attitude				
	Good attitude	Poor attitude			
	Number (%)	Number (%)	COR (CI=95%)	P-value	AOR (95% CI)
Age					
10-20	19 (54.3%)	16 (45.7%)	1.387 (0.565, 3.403)	0.475	
21-30	152 (53.7%)	131 (46.3%)	1.420 (0.744, 2.709)	0.288	

31-40	119 (50.9%)	115 (49.1%)	1.592 (0.827, 3.064)	0.164		
>41	28 (62.2%)	17 (37.8%)	1			
Educational status						
Illiterate	114 (47.9%)	124 (52.1%)	1.379 (0.636, 2.989)	0.415		
Read and write	55 (44.7%)	68 (55.3%)	1.213 (0.538, 2.734)	0.641		
Elementary school	98 (47.6%)	108 (52.4%)	1.361 (0.624, 2.969)	0.438		
Secondary school and above	12 (40%)	18 (60)	1			
Marital status						
Married	274 (52.7%)	246 (42.3%)	0.672 (0.311, 1.448)	0.310		
Divorced	36 (65.5%)	19 (34.5%)	0.454 (0.183, 1.128)	0.089		
Widowed	3 (25%)	9 (75%)	1			
Occupational status						
House wife	141 (58.5%)	100 (41.5%)	**0.701 (0.504,**	.035	1.294 (0.447	

only			**0.975)***		3.745)
Farmer	127 (50.2%)	126 (49.8%)	1.239 (0.894, 1.715)	0.198	1.297 (0.461,3.651)
Merchant	26 (54.2%)	22 (45.8%)	0.961 (0.532, 1.738)	0.896	1.807(0.614, 5.319)
Private work	18 (52.9%)	16 (47.1%)	1.014 (0.507, 2.029)	0.969	1.623 (0.463, 5.686)
Daily worker/ laborer	0 (0%)	15 (100%)	0.454 (0.183, 1.128)	0.998	
Religion					
Orthodox Christian	286 (53%)	254 (47%)	0.888 (0.392, 2.012)	0.776	
Muslim	3 (100%)	0 (0%)	0.454 (0.183, 1.128)	.099	
Protestant	13 (72.2%)	5 (27.8)	0.385 (0.104, 1.419)	0.151	
Catholic	4 (33.3%)	8 (66.7%)	2.000 (0.473, 8.462)	0.346	
Other	15 (62.5%)	9 (37.5%)	1		

Note: *p<0.05

Chapter six

6. DISCUSSION

According to the document, breastfeeding is virtually universal in Ethiopia. Only one percent of the women do not breastfeed their babies. About half of all infants under six months of age are exclusively breastfed in line with recommendations of the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), 15 percent of infants are fed on a combination of breast milk and water, and 17 of infants' percent are fed on breast milk and other kinds of milk, and 14 percent of infants are fed on solid foods in addition to breast milk (15, 20). In 2003, the Academy for Educational Development (AED) LINKAGES project conducted a qualitative study in Addis Ababa, Gondar and Jimma; the study found that breastfeeding was virtually universal in all the three study sites. In Addis Ababa and Jimma, breastfeeding started soon after delivery, while in Gondar it could be delayed for up to two or three days. Most mothers breastfed their babies for the first 4-6 months, but it was common to give cow's milk, formula, fenugreek water, plain water, butter and the tenadam herb alongside breast milk, thereby not complying with the WHO/UNICEF exclusive Breast feeding recommendations. Complementary feeding usually started between 3-4 months, and mothers weaned their babies between one year (Addis Ababa) and two years (Jimma and Gondar)(23).

In this the result this study showed that from the total of 597, 585 (98%) gave food or liquid before six months age and only 12 (2%) had not been given food or liquid. From 585 that gave liquid or fluid before six months of age 55 (9%) gave the water, 274 (47%) gave the butter, 235 (40%) gave the milk and 26 (4%) other food or liquid like tenadam for their children before six months of age. This low level of knowledge (56.8%) about child feeding and not know the time of EBF resulted that the study took place in the rural area and affected by another socio-

demographic characteristics. From this result most of the mother reported as they knew EBF but when asked did they give food or fluid before six months of age 585 (98%) did that.

According to the research done in South Gondar, 50 % women believe in the “evil eye” and are afraid to breastfeed their babies in public. Those who breastfeed in public cover their babies to shield them from the “evil eye”(24).

From the total of 597 mothers only 179 (30%) did not belief that ‘evil eye’ causes disease to their children when feeding their babies in public the rest 418 (70%) not afraid breast feed in public. The difference may be due to cultural difference and the increment of health education about the child feeding in line with WHO recommendation and cause of different diseases somewhat becoming aware by the mothers.

Employment of the mother or caregiver may be expected to enhance accessibility of the household to income, which may in turn have a positive effect on the nutritional status of the child. This may be expected because such income is more likely to be controlled by the mother/caregiver and used to improve children’s nutritional status. However, it may also be argued that employment of the mother/ caregiver may have a negative effect on children’s nutritional status by reducing both infants’ access to breastfeeding and time spent on childcare. Some empirical studies show that the mothers of the most malnourished children work outside their home, while others do not find any association between maternal employment and the nutritional status of the child (Abbi et al,1991;Leslie,1988)(31)

In this study occupational status was associated with the knowledge of the mothers. Merchants were less likely knowledgeable than daily worker at P-value of 0.017, AOR 0.213, and CI=95% (0.059, 0.763). But most of the merchants are working not the outside rather they were working

in shops around their home. The negative association could be due to they were busy to participate health education given health workers. On the other hand this difference could be the accessible of health education where there are social services. Know a days there are different social interaction than previous that increase the knowledge of individuals and at the same time make difference on individual of especially different occupational status.

According to Christiaensen and Alderman (2004), sustained per capita income growth of 2.5 percent over a 15-year period could lead to a 3–6 percent decline in chronic malnutrition in Ethiopia. However, they argue, income growth alone might not be sufficient to alleviate child malnutrition as nutrition is also influenced by a number of other factors(3).Using the 2000 Demographic and Health Survey (DHS) data for Ethiopia, Girma and Genebo (2002) found no significant association between knowledge and employment status of the mother(33).

When pregnancies are closely spaced, it is often the case that the mother will have little time to regain lost fat and nutrient stores (ACC/SCN cited in Girma and Genebo, 2002). Child nutritional status is also expected to improve with higher birth spacing as the mother would get enough time for care and feeding. Studies showed that in most countries where DHS surveys have been conducted, children born less than 24 months after the previous child was born (a short birth interval) have a higher level of stunting (cited in Girma and Genebo, 2002) (33)

From the total of 597 mothers interviewed, 573 (96%) mothers had two and above children in their home and only 24 (4%) had one children of age less than five years old. The family who had children whose age less than five years old three or more in number was 92 (15.4%) the mother who had those children of close birth interval had no association in this study with attitude about the child feeding than the rest of the mother. This could be as a result

In this study multivariate analysis shows that there was no association between knowledge and educational status of mothers. But various studies show that there is positive relationship between the knowledge and educational level. Some are:

Various studies have concluded that parental education especially that of mothers is a key element in improving children's nutritional status (Christiaensen and Alderman, 2004; Moen, 1993; Yimer, 2000; Genebo et al, 1999). Glewwe (1999) investigated the mechanisms through which schooling results in better child nutrition. This difference could be as a result that the mothers who were educated did not complete their education up to higher school (University or college) to get job and improve their income.

The impact of mothers' schooling on child nutrition is not only through its effect on nutritional knowledge. A more educated mother is likely to have a higher income (which can directly affect her children's health and nutrition) and higher status and power in the household as well as the community, putting her in a better position to make decisions about her children's needs (Moen, 1993). The literature also indicates that where the general level of education of a community is low which is the case in our study higher levels of education of female and male members of the household can indirectly influence child nutritional status (Basu and Foster, 1998; Gibson, 2001).Christiaensen and Alderman (2004) found that the effect of maternal education is about twice as important as that of paternal education. They showed that completion of primary school by at least one adult female in a household result in increased knowledge and a 6–11 percent decline in stunting, while education of a male adult reduces child stunting by only 2–8 percent.

Similarly in this study multivariate analysis the mother who can read and write was less likely good practice than that learnt secondary school and above.

7. Strength and Limitation

Strength

a. Use adopted standardized questionnaires

b. High response rate

Limitation

a. Social desirability bias due to sensitive and personal question related to the land owner and financial issues

b. Limitation of related literatures to compare and discuss some of the findings

8. Conclusion and Recommendation

8.1 Conclusion

Generally the study showed that from the total of 597, 585 (98%) gave food or liquid before six months age and only 12 (2%) had not been given food or liquid. From 585 that gave liquid or fluid before six months of age 55 (9%) gave the water, 274 (47%) gave the butter, 235 (40%) gave the milk and 26 (4%) other food or liquid like tenadam for their children before six months of age. This low level of knowledge (56.8%) about child feeding and not know the time of EBF resulted that the study took place in the rural area and affected by another socio-demographic characteristics. From this result most of the mother reported as they knew EBF but when asked did they give food or fluid before six months of age 585 (98%) did that.

In multivariate analysis the mother who can read and write was less likely good practice than that learnt secondary school and above. The protestant followers had best practice towards child feeding than other religion followers

The occupational status was associated with the knowledge of the mothers. Merchants were less likely knowledgeable than daily worker at P-value of 0.017, AOR 0.213, and CI=95% (0.059, 0.763). The orthodox Christian and Catholic followers were less likely knowledgeable than other religion at P-value of, AOR (CI=95%) 0.002, 0.145 (0.029, 0.730)* and 0.019, 0.177 (.059, 0.531)*respectively.

8.2 Recommendations

By taking in to account the results of this study the following recommendations are Forwarded:

1. Strengthen and integrate counseling of mothers on appropriate child feeding knowledge and attitude practices with health services by providing training on infant feeding counseling including the feeding options recommended to the children.
2. Periodic reassessment of the KAP of mothers about safe infant feeding practices and in the study area and other parts of the country.
3. It is better if health bearue, Health extension workers, and health centers, health professionals of the study area and all over the country worked on the assessment of KAP of mother towards child feeding.
4. It is better if the teachers and students of community take action on about how the families feed their children since they are very near to the community of the families.

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10. Annexes

10.1 Questionnaire

A. English version

Addis Ababa University School of Allied Health Science Department of Nursing and Midwifery Questionnaire on relationship between the knowledge, attitude and practice (KAP) of mothers in feeding their under five children in a rural community Kellecha Tikka Kebele, of Sebeta Awas district, Surrounding Finfine special Zone, Oromia Region, Conform that certify the respondent agreement before the interview

Introduction

Good morning, good afternoon (according its conveniences). My name is _____. I am working as data collector in study conducted by the collaboration of Addis Ababa University, School of Allied Health Science, Department of Nursing and Midwifery and by Mr. Merga Bayou (Master of child health nursing student in Addis Ababa University) to assess KAP of mother towards child feeding.

Your name will not be written on this form and will never be used with any information you may tell me. You do not have to answer any questions that you do not want to answer and you may end this interview at any time you want. However, your honest answer to this question is very important for the purpose of the study. You would very much appreciate your participation in this study by genuinely responding to the interviews.

Would you willing to participate? Yes ☐ No ☐

It would take 30 minutes to complete the questionnaire

Signature of the interviewer certifying that informed consent has been given verbally by respondent_____.

001. Questionnaire identification number /_____/

002. Interviewer code_____name_____

003. Date of interview_____ 004. Result_____

1. Completely collected, 2. Partially completed, 3. Other (please specify) _____

Checked by supervisor; name _____, signature_____

Questionnaire form

Instruction: circle the responses provided by the interviewer or write the appropriate the answer on the space provided.

Part I. <u>Questions on the assessment of Socio-demographic and economic characteristic of mother and child</u>

101. Sex of the child

1. Male
2. Female

102. Age of the child, _____months

1. 6-12
2. 13-24
3. 25-36
4. 37-48
5. 49-60

103. Age of mother_____ years.

1. 10-20
2. 21-30
3. 31-40
4. >41

104. The educational level of the mother

1. Illiterate
2. Read and write
3. Elementary school
4. Secondary school and above

105. What is your husband's educational status?

1. Illiterate
2. Read and write
3. Elementary school
4. Secondary school
5. College/University

106. Marital status of mother

1. Married
2. Divorced
3. Widowed

107. Religion:

1. Christian
2. Protestant
3. Muslim
4. Other

108. Ethnicity

1. Oromo
2. Amhara
3. Other

109. Head of the house hold

1. Male
2. Female

110. Total family size (how many person live in the HH?)

In number_____

111. How many children <5 year live in the house hold?

1. 1
2. 3.
3. 3 and above

113. Occupation of mother (more than one answer is possible)

1. Housewife only
2. Farmer
3. Merchant / trade
4. Private organization employee
5. Government employe

6. Daily laborer
7. Other (specify)

114. Occupation of husband (more than one answer is possible)

1. Farmer
2. Merchant / trade
3. Private organization employee
4. Government employee
5. Daily laborer
6. Other (specify)

115. Land owner _____in hectare

116. How many of the following animals, does this household own? Put in number.

1. Cows/bulls/oxen . . . . . .
2. Horses/donkeys/mules . . . . .
3. Goats and Sheep . . . . . .
4. Chickens . . . . . .
5. Beehives . . . . . .
6. Not have at all

117. Does any member of this household have a bank or microfinance saving account?

1. Yes
2. No

Your monthly income_____ETH.B

118. Who decide how the resources will be used?

1. Mainly spouse
2. Mainly husband
3. Only husband
4. Both jointly

119. The source of water

1. Pipe
2. Protected spring/wells
3. Unprotected spring/wells
4. Rivers

120. Latrine ownership

1. Yes
2. No

121. How do you dispose garbage?

1. Open field disposal.
2. In a pit
3. Common pit
4. Composting
5. Burning
6. Other (specify)

PART II: QUESTIONS THAT ASSESS THE KNOWLEDGE OF MOTHER IN FEEDING CHILDREN, CIRCLE THE ON THE ANSWER.

201. Do you think breast feeding has advantage for the children?

1. Yes
2. No
3. I don't know

202. Do you know that the age at which you start to give additional food for your children?

1. Yes
2. No

203. If yes at what age did you start to give additional food for your child?

1. Before 6 months of age
2. After 6 months of age
3. After one year of age
4. I don't know

204. For how long should the child get only breast feeding?

1. For six months
2. For three months
3. For one year
4. I don't know

205. Do you think that the first milk (colostrum's) has advantage for the children?

1. Yes
2. No
3. I don't know

206. Do know that preparing food from different crops has advantage?

1. Yes
2. No

207. Do you know what balanced diet is?

1. Yes
2. No

PART III: THE QUESTIONS THAT ASSESS THE PRACTICE OF MOTHERS IN FEEDING THEIR CHILDREN

301. Did you give the child pre-lactation food/fluid?

1. Yes
2. No

302. If yes what did you give him/her?

1. Water
2. Butter
3. Milk
4. Other (specify) _____

303. Did you squeeze out and throw the first milk (colostrum's)

1. Yes
2. No

304. Which food you give frequently for your child? (More than one answer is possible?

1. Cow's milk
2. Butter
3. Sugar solution.
4. Formula milk
5. Atmite/ bula
6. Pourage
7. Other (specify)_____

305. Do you prepare the food for your child from different crops?

1. Yes
2. No

306. What do you use to feed child?

1. Bottle
2. Cup
3. Spoon
4. Other (specify)____

307. Who is usually taking care of the child feeding?

1. Mother
2. Father
3. Sister
4. Grandmother
5. House maid
6. Other (specify)

308 How frequent you wash the dishes?

1. Twice daily
2. Once daily
3. Every other day.
4. Immediately after use
5. Other (specify)

309. Do you wash your hands whenever you feed your child?

1. Yes
2. No

310. How many times you gave food for child per day? _____ Times

PART IV: QUESTIONS THAT ARE USED TO ASSESS THE ATTITUDE OF MOTHER IN FEEDING THEIR CHILDREN.

401. Do you think that exclusive breast feeding is good for the first six months age of the child?

1. Yes
2. No
3. I don't know

402. Do you give priority for your child to eat before the rest of the family?

1. Yes
2. No

403. If you give the priority, at what time you give the priority?

1. There is scarcity in home
2. Always
3. Sometimes

404. What prevents you to give different mixed food for your child?

1. Shortage of crops availability in home
2. Lack of knowledge
3. Because it is not important to give mixed food for the children

405. Do think breast feeding the child in public service area affect the child?

1. yes
2. no

406. Is the feeding of children need especial concern?

1. Yes
2. No
3. I don't know

407. When do breastfeed/ give food for your child?

1. When child cries
2. At a time we eat
3. When child get hungry
4. At any time we want
5. Other (specify)

407. What did you do for the child illness?

1. Home treatment
2. Visited health facility
3. Consulted traditional healers
4. Other

408. Do you take your child to health institution for sickness?

1. Yes
2. No

PART V: HEALTH RELATED VARIABLES

501. What do you think is the frequent health problem to the child?_____ disease/s

- Do not know

501. Does the child ever been immunized?

1. Yes
2. No

502. Vaccines received (see card, if no card available ask them to recall) (more than one answer is possible)

1. BCG only (see Scar)
2. DPT (No of dose____)
3. Measles
4. Completed
5. No card found

503. Has the child had diarrhea in the last two weeks?

1. Yes
2. No
3. Do not know

504. How frequent (diarrhea) in a year

1. Once
2. Twice
3. 3-4 times
4. >5 times

505. Has the child been ill with fever at any time in the last two weeks?

1. Yes
2. No
3. Don't know

506. Presence of respiratory in the last two weeks

1. Yes
2. No
3. Do not know/

507. Has the child get sick with measles in the last year

1. Yes
2. No
3. Do not know

B. Afaan Oromoo Version

YUNIVERSIITII FINFINNEE KOLLEJJII GAMTAA FAYYAATTI QAJEELCHA NURSIINGII FAYYAA IJOOLLEE

Waraqaa gaaffii

Waraqaan gaaffii kun kan qophaa'e raga hariiroo sadarka nyaataa fi beekumsa, ilaalcha fi shaakala haadholiin daa'mman waggaa 5 gadii nyaachiisuu irratti qaban sadarkaa mana manaatti funaanuuf, gandaa Kallacha Xiqqaa, Godiina Addaa Naannawaa Finfinnee Aanaa Sabbata Awaas, Nannnoo Oromiyaa, Itoophiyaa.

Walii galtee

Nagaa gaafachuu

Seensa

Maqaan koo_____ jedhama. Ani kanaan hojjechaa jiru raga qoranno Yuuniversitii Fnfinne, faakaltii fayyaa qajeelcha fayyaa ijoolle waliin ta'uun fi Obboo Margaa Baayyuu (barataa maastera narsiingi fayya ijoollee) wajjin dha. Mata dureen isaa" hariiroo sadarka nyaataa fi beekumsa, ilaalcha fi shaakala haadholiin daa'mman waggaa 5 gadii nyaachiisuu irratti qaban" gaggeffamuu irratti ooluu funaanuu dha.

Maqaan keechan guca kana irratti hin barreeffamu, akkasumas ragaa naaf kennitan waliin qabsiifame itti hin fayyadmnu. Gaaffiin isin deebisuu hin barbaadne yoo jiraate dhiisuun mirga keessan ta'e yeroo barbaaddanis gaaffii fi deebii keessan dhaabuu ni dandeessu. Haa ta'u malee, gaaffilee hundaaf deebii sirrii ta'e kennuun kaayyoo qorannaan kuni ba'eef ni barbaachisa.

Hirmaachuuf fedhi qabdanii? Eeyyee ☐ Lakkii ☐

Gaafii fi deebii kana xummuruuf daqiiqaa 30 qofa fudhata

Mallattoo gaafataa, namni gaafatamu kun waliigaltee isaa jechaan ibsuu isaa mirkaneessuuf____

001. Lakkoofsa waraqaa gaaffii /_____/_____/

002.Maqaa nama gaafatuu_____

003.Guyyaa gaaffii fi deebii _____ 004. Firii _____

1. hundi guutame
2. hin guutamne
3. Walakka guutame
4. kan biraa(ibsi)

Too'ataa hordofe; Maqaa _____ Mallattoo_____

Qajeelfama: Gaaffilee kennamaniif deebii sirri ta'e irratti mari

KUTAA I: GAAFFIILEE HAWAASUMMAA FI DIINAGDEE QO'ATAN, DEEBII SIIRRI TA'EETTI MARII.

101. Saallii mucaa maali?

1. Dhiiraa
2. Dhalaa

102. Umuriin mucaa meeqaa? Ji'a _____

1. 6-12 2. 13-24 3. 25-36 4. 37-48 5. 49-60

103. Umiriin haadhaa waggaa _____.

1. 10-20
2. 21-30
3. 31-40
4. >41

104. Sadarkaa barnootaa kan haadha manaa

1. Hin baranne
2. Dubbisuu fi barreessu ni dandeessi
3. Sadarkaa tokkoffa baratte
4. Sadarkaa lammaffaa baratte
5. Koollejjii/Yuniivarsiitii baratte

105. Sadarkaa barnoota kan abbaa manaa

1. Hin baranne
2. Dubbisuu fi barreessu ni danda'a
3. Sadarkaa tokkoffa barate
4. Sadarkaa lammaffaa barate
5. Koolleejjii/Yuniivarsiitii barate

106. Haalli fuudhaa

1. Waliin jiru
2. Wal hiikan
3. Irraa du'e/duute
4. Adda bahan
5. Kophaa

107. Amntiin keessaan maalii?

1. Ortoodooksii
2. Musliima
3. Pheenxee
4. Kaatoliikii
5. Kan bira(ibsi)

108. Sabni keessan maalii?

1. Oromoo
2. Amaaraa
3. Tigree
4. Guraagee
5. Kan biraa(ibsi)

109. Abbaa manaa/hoogganaa

1. Dhiira
2. Dubartii

110. Baay'inni maatii mana keessa jiraatanii meeqa? _____ lakkoofsaan

111. Baay'innii ijoolllee waggaa shanii gadii meeqa? _____ lakkoofsaan

1. 1 2. 2 3. 3 fi isaa ol

112. Dalagaa /hojii haadha manaa

1. Haadhaa manaa qofa
2. Qotee bulaa

5. Hojjettuu mootummaa
3. Daldalaa
6. Hojjettuu guyyaa
4. Hojii jaarmayaa dhuunfaa
7. Kan biraa (ibsi)

113. Dalagaa/ hojii abbaa manaa

1. Qotee bulaa
4. Hojjetaa jaarmayaa dhuunfaa
2. Daldalaa
5. Hojjataa guyyaa
3. Hojjetaa mootummaa
6. Kan biraa (ibsi)

114. Lafa qonnaa dhuunfattii heekataraa meeqa qabduu? _____ heektaaran, galiin ji'aan argatan_____ Qr.

115. Beeyladaa manaa lakkofsan

1. Qotiyyoo qonnaa_____
4. Hoolaa fi re'ee
2. Sa'a aannanii_____
5. Gaagura kanniisaa_____
3. Lukkuu_____

116. Gosa midhaani baay'inaan oomishtan maalii dha?

1. Xaafii
3. Shumburaa
2. Qamadii
4. Kan biraa (ibsi)

117. Baankiitti maallaqa kan qusatuu maatii keessan keessa ni jira

1. Eeyyee
2. Lakkii

118. Itti fayyadamaa maalaqa argattanii caalman eenyutu murteessaa?

1. Haadha manaa
3. Abba manaa qofa
2. Abbaa manaa
4. Lamaanuu waliin ta'uun

119. Maddi bishaanii maatiin fayyadamuu

1. Bishaan ujummoo
2. Bishaan burqaa kan hin eegumsa hin qabne

4. Bishaan laga

3. Bishaan burqaa kan eegumsa qabu

120. Mana fincaanii qabdu?

1. Eeyyee
2. Lakkii

121. Haalli kosii goggoga itti gatan akkamii?

1. Bakkeettii
2. Boolla dhuunfattii
3. Boolla walinitti
4. “Compost” gochuu

KUTAA II. <u>GAAFFIILEE BEEKUMSA</u> <u>HAATI NYAATA DAA’MMANII IRRATTI QABDU QO’TAN</u>

201. Harma hoosisuun daa’imaaf bu’aa qaba jettanii yaadduu?

1. Eeyyee
2. Lakkii
3. Hin bbeku

202. Daa’imni tokko dhalatte waggaa meeqatti nyaata dabalata akka ishee barbachisu beektu?

1. Eeyyee
2. Lakii

203. Eeyeen yoo jettan waggaa meeqatti nyaata dabalataa ishee baraachisa?

1. Ji’a jahaan dura
2. Ji’a jahaan bood
3. Waggaa tokkoon booda
4. Hin beeku

204. Daa’imni kee harma qofa kan hodhuu ji’a meeqafi?

1. Ji’a ja’aaf
2. Ji’a sadiif
3. Waggaa tokkofi
4. Hin beeku

205. Silgii (aannan harmaa inni jalqabaa) daa’imaaf faayidaa qaba jettee yaaddaa?

1. Eeyyee
2. Lakkii

206. Midhaan gosa garaagara irraa nyaata da’imaaf qopheessuu faayidaa qaba jette yaadda?

1. Eeyyee 2. lakkii

207. Nyaataa madaalamaa jechuun maal akka ta’e ni beektaa?

1. Eeyyee 2. Lakkii

KUTAA III: <u>GAAFFILLE SHAAKALA HAATI NYAATA DAA’MMANII IRRATTI QABDU QO’TAN</u>

301. Otoo harma hin hoosisiin dura nyaata/waan dhangala’aa daa’ima keessaniif kennitaniittu?

1. Eeyyee 2. Lakkii

302. Kennitaniif taanaan maal kennitaniif (deebiin tokko ol ni ta’a)

1. Bishaan
2. Dhadhaa
3. Aannan
4. Kan biraa (ibsi)

303. Silga (aannan harmaa isa dura) elmitanii gattuu?

1. Eeyyee 2. Lakkii

304. Yeroo baay’ee nyaanni isin daa’imaaf kennitan isa kami dha? (Deebiin tokkoo ol ni danda’am)

1. Aannan sa’aa
2. Bulbula sukkaara
3. Aannaan foormulaawa
4. Muuqii
5. Marqaa
6. Kan biraa (ibsi)

305. Midhaan gosa garaagara irraa nyaata da’imaaf ni qopheessituu?

1. Eeyyee 2. Lakkii

306. Meeshaan daa’ima nyaachisuuf gargaaramtan maali?

1. Burcuqqoo/Geeba
2. Sinii
3. Fal’aana
4. Kan biraa (ibsi)

307. Nyaata daa'ima yeroo baay'ee eenyuutu hordofaa?

1. Haadha
2. Abbaa
3. Obbolletti
4. Akkawoo
5. Hojjettu mana
6. Kan biraa (ibsi) _____

308. Meeshaale itti soorattan/nyaattan si'a meeqa dhiqxu?

1. Guyyatti si'a lama
2. Guyyaatti si'a tokko
3. Guyyaa lammffaatti
4. Battal akkum gargaarmneen/itti nyaanneen

309. Yeroo daa'ima keessan nyaachiftan harka keessan ni dhiqattuu?

1. Eeyyee
2. Lakkii

310. Guyyaatti daa'ima keessan si'a meeqa nyaachiftu? Si'a _____

KUTAA IV: GAAFFILLE IAALCHA HAATI NYAATA DAA'MMANII IRRATTI QABDU QO'TAN, DEEBII KENNAME IRRATTI MARI

401. Ji'a jahaan jalqaba daa'ima horma qofaa hoosisuun bu'aa qaba jeette yaaddaa?

1. Eeyyee
2. Lakki
3. Hin beekuu

402. Mana keessattii mucaa keessaniif nyaata maatii kaan dura ni kennituufi?

1. Eeyyee
2. Lakkii

403. Yoo dursa kennituuf ta'ee yeroo akkamii?

1. Yeroo nyaanni hanqatu
2. Yeroo hunda
3. Darbe darbee

404. Akkaa nyaata daa'imaa midhaan gosa garaagara irraa hin qopheessine maal tu si dhorka?

Deebii gaaffii '3' ilaali

1. Hanqinni midhaanii mana keessa waan jiruuf

2. waan hin beekneef

3. Nyaata midhaan gosaa gosaa irraa qopheessuun daa'immaniif waan hin barbaachifneefi

405. Soorataa daa'imaa haala addaatiin ilaaluun barbaachisaa dha jettu?

1. Eeyyee 2. Lakkii 3. Hin beekuu

406. Daa'ima keessan kan harma hoosifatan/ nyaata nyaachiftan yoomi? Yoo daa'imni boo'ee

1. Yerumaa ofii nyaannuu

2. Yeoo daa'imni beela'e

3. Yeroo nutti mijaa'u

407. Yeroo mucaan dhukkabsatu/ttu akkamitti yaalchiftuu?

1. Manumattii

2. Dhaabbata fayyaa geessun

3. Yaaltotaa aadaa biratti

4. Kan bira (ibsii)

408. kanaan duraa yaalidhaf dhaabbata fayyaa geessitani beektu?

1. Eeyyee

2. lakkii

KUTAA V: <u>GAAFFILEE HAAL FAYYAA DAA'IMAA ILLAALLATAN, DEEBII SIRRII TA'E ITTI MARI.</u>

501. Yeroo meeqa mucaan dhukkabsatee/tte dhaabbata fayya geessitani beektu?

1. Al _____ 2. Hin yaadadhuu

502. Rakkon fayya mucaa yeroo hedduu maal isinitti fakkata?

1. Dhukkuba _____ 2. Hin-beekkamuu

503. Talaallii fudhate/tte beeka/beektii?

1. Eeyyee 2. Lakkii

504. Talaalli kam fudhatee? (kaardii ilaali, yoo hin jiraanne akka yaadatan gaafadhuu) (deebii tokko ol ni danda'ama)

1. BCG qofa (Godaannisa ilaali)
2. DPT (hamma____)
3. Gifira
4. Kaardin hin-jiru
5. Lakkoofsa kaardii

505. Torban laamaan darbee keessa mucaan dhukkuba garaa kaasaa qabaa/qabdii?

1. Qabaa
2. Hin qabuu
3. Hin beekkamu

506. Waggatti yeroo meeqa qabaa?

1. Tokkoo
2. Lama
3. Yeroo 3-4
4. Yeroo 5 ol

506. Torban lamaan darbee keessa mucaan dhukkubaa gubaa qaba/qabdi?

1. Qaba
2. Hin-qabu
3. Hin beekkamuu

507. Torbaan lamaan darbee keessa dhukkuba afuura ykn sombaa qaba/qabdi?

1. Qabaa
2. Hin-qabu
3. Hin-beekamuu

508. Wagga darbe keessa dhukkuba gifiratin qabame beeka/beekti?

1. Qaba
2. Hin qabu
3. Hin-beekkama

DECLARATION

I the undersigned declare that this thesis my original work, has not been presented for a degree in this or any other University and all sources of materials used for this thesis have been fully acknowledged

Name: Merga Bayou

Signature: _____

Date: _____

Place: Addis Ababa University, Ethiopia

Date of submission _____

This thesis work has been submitted for examination with my approval as University advisor

Name: Mr. Hussein Mekonnen (MPH, PhD fellow)

Signature: _____

Date: _____

CURRICULUM VITAE

1. **Personal background**

☞ Full name	Merga Bayou Bekele
☞ Sex	Male
☞ Date of birth	27/09/1986 G.C or 16/01/1978 E.C
☞ Age	27
☞ Place of birth	Sebeta Awas
☞ Marital status	Married
☞ Health	Normal
☞ Nationality	Ethiopian
☞ Address	Mob: 0910416080
	E-mail: mergabayoub@gmail.com

2. **Educational background**

Higher institution: - BSc. Degree in clinical nursing from Jigjiga University in 2002 E.C with a CGPA of **3.76/4.0.**

Preparatory level: - Sebeta preparatory and secondary school (1998-1999 E.C)

High school: - Sebeta preparatory and secondary school (1996-1997 E.C)

Primary school: - Tefki primary school (1988-1995 E.C)

3. **Skill**: -

- ☞ Research on KAP assessment of TB treatment among patients of Karamara hospital, Jigjiga, Ethiopia.
- ☞ Currently working at Madawalabu University.

- ☞ Participated on Modular approach Curriculum development for Nursing and midwifery programs.
- ☞ Participated on different activities under Nursing Department including committees.
- ☞ Independent leader with excellent verbal presentation and written communication skills
- ☞ Ability to work both independently and cooperatively with clients and in a team environment; highly collaborative; able to work with all levels of management
- ☞ Can adapt to a constantly changing environment

4. Duties and Responsibilities

- ☞ Patient care and clerk
- ☞ Teaching
- ☞ Advising students
- ☞ Demonstration
- ☞ Leadership and management

5. Special skill and training

- ☞ Basic computer skill (Microsoft Office Word, PowerPoint, Microsoft office Excel, Internet Browsing)
- ☞ Trained effective teaching skills and students assessment (certified)

6. Language skills

Language	Listening	Speaking	Writing	Reading
Afan Oromo	Excellent	Excellent	Excellent	Excellent
Amharic	Excellent	Excellent	Excellent	Excellent
English	Excellent	Excellent	Excellent	Excellent

7. Hobbies

- ☞ Appreciating nature
- ☞ Working with people, good team player and willingness to work extra hours.
- ☞ Taking part in enrichment of my profession, Nursing in Ethiopia
- ☞ Reading medical books and journals
- ☞ Participating in community services and research.
- ☞ Browsing Internet.
- ☞ Supportive attitude to working with HIV/AIDS affected Community
- ☞ Updating my knowledge and skills