

ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCE, SCHOOL OF PUBLIC HEALTH

**ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE OF
EXCLUSIVE BREASTFEEDING AMONG MOTHERS ATTENDING
SELECTED PUBLIC HEALTH INSTITUTION IN ARADA SUB CITY,
ADDIS ABABA, ETHIOPIA**

By

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**A Thesis Submitted in Partial Fulfillment of the Requirements for the
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List of Acronyms

ANC	Antenatal care
ARI	Acute Respiratory Infection
BF	Breastfeeding
EBF	Exclusive Breastfeeding
CSA	Central Statistical Authority
EDHS	Ethiopia Demographic and Health survey
FMOH	Federal Ministry of Health
HSDP	Health Sector Development Program
NNP	National Nutrition Program
ORS	Oral Rehydration Salt
PNC	Postnatal Care
SPSS	Statistical Package for Social Science
UNICEF	United Nations Children's Fund
WHO	World Health Organization

ABSTRACT

BACKGROUND: Malnutrition has been responsible, directly or indirectly for 60% of the 10.9 million deaths occurring annually among children under five years of age. Over two thirds of these deaths are often associated with inappropriate feeding practices occur during the first year of life. Breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infants. Exclusive breastfeeding is the most effective intervention and a good knowledge and attitude is necessary among mothers to practice appropriate breastfeeding to reduce infant and under five morbidity and mortality.

OBJECTIVES: The aim of this study was to assess knowledge, attitude and practice of exclusive breastfeeding among mothers and to identify determinants of breastfeeding practice in selected public health institutions of Arada Sub- City, Addis Ababa, Ethiopia.

METHODS: A cross-sectional facility based study was conducted among 383 mothers who have infants below six months old in three selected health facilities one Hospital and two health centers of Addis Ababa in March to April 2015. Random sampling with proportional to size allocation technique was applied. Structured questionnaire was used to interview the selected mothers, experienced interviewers and supervisor were collected the data using a pretested questionnaire. Data was analyzed using SPSS windows version 20.0 software.

RESULTS: A total of 383 mothers who had children aged less than 6 months were interviewed. The ever breastfeeding rate in this study was found to be 99.7% and timely initiation of breastfeeding and EBF rate based on 24 hours recall were 65.8% and 74.3% respectively. The study findings revealed that there is a good practice of exclusive breastfeeding. Knowledge of additional food to be given with breast milk from birth to 6 months ($P < 0.001$), total frequency of breastfeeding within a day ($P < 0.001$), and age of the mother ($P < 0.05$) were identified to be the final predictors of exclusive breastfeeding practice by 24 hours recall, after controlling socio-demographic, reproductive health, knowledge attitude and practice of EBF variables.

ONCLUSION AND RECOMMENDATION: This study has identified that exclusive breastfeeding prevalence based on 24 hours recall was 74.3%, and 99.7% of the study participant ever breastfed at some point of time. However, there are some gaps in knowledge, attitude and practice identified in this study which could potentially affect EBF practice. Hence, strengthening the capacity of health professionals and sustaining the existing strategies to promote and support EBF practices; and approaches for further improvement of EBF practice is highly recommended.

1. INTRODUCTION

1.1 Background

Breastfeeding is a very important nutritious food for the newly born baby. It both benefits the mother and the newly born baby. The mother can benefit from immediate breastfeeding after delivery it reduces the risk of postpartum haemorrhage and it has an advantage in lactational amenorrhoea for family planning in the first six months after delivery. The sooner the breastfeeding is started and the more frequent the child is fed its benefit will be so much greater. The newly born child also benefits from breastfeeding because it is full of the necessary nutrients and antibodies to protect the child from infectious diseases during the early stages of life (1, 2)

The exclusiveness of breastfeeding is strongly recommended by World Health Organization (WHO) and United Nations Children's Fund (UNICEF). Definition of Exclusive Breastfeeding (EBF) is to feed the infant only breast milk with no other food or drink, not even water. In addition to breast milk only ORS, medicines, vitamins and minerals are allowed to give for infant for the first six months of life whenever prescribed by health professional. Infants should be exclusively breastfed for the first six months of life and they should receive nutritionally adequate and safe complementary foods while breastfeeding continues for up to two years and beyond is a global public health recommendation by WHO and UNICEF(1,2) .

Breastfeeding is a cost effective intervention that could save so many new born lives. This is advantageous for developing country mothers cannot afford to purchase breast- milk substitutes and they provide it to the infant with the necessary hygiene and frequency. For many poor households the high cost of breast- milk substitute and equipment represents a substantial drain on scarce household resources. Therefore, in resource limited setting countries, it is strongly recommended to provide infants with exclusive breastfeeding for the first six months of life (3, 4)

1.2 Problem statement

Globally not more than 35 percent of infants are exclusively breastfed during the first four months of life (1). According to EDHS 2011 report 52 percent of infants less than six months of age are exclusively breastfed. It was also identified that mothers mix other food items and drinks to the infant feeding. This predisposes the infants to various infectious diseases, resulting high

infant morbidity and mortality (5). This might be due to maternal knowledge about breastfeeding and its exclusiveness. Even if there was knowledge; their attitude might not be good enough to breastfeeding practice. Various factors that can affect the breastfeeding practice. Socio demographic and health service related factor could also contribute on the maternal knowledge, attitude, and practice.

1.3 Rationale of the study

To minimize infant morbidity and mortality rate in the country, the Government of Ethiopia, through the Federal Ministry of Health (FMOH) and other related ministries has targeted breastfeeding with other interventions in the fourth Health Sector Development Program (HSDP-IV) and the National Nutrition Program (NNP). Therefore, planned to increase the proportion of exclusive breastfed infants under the age of six months to 70% by 2015(5, 6). Based on the EDHS 2011 report in Addis Ababa, the median EBF rate was found to be low (1month) when compared to most of the regions .which could be due to different factors such as urbanization, busy working conditions,distance to home from working places and opportunity for education. These factors might change maternal knowledge and practice of breastfeeding. The finding of this study can provide relevant information for policy makers for future planning and interventions of appropriate strategies to promote and maintain exclusive breastfeeding practices in the area.

2. LITERATURE REVIEW

According to the World Health Organization, infant and young child feeding is the key area to improve child survival and promote healthy growth and development. Therefore, the first two years of a child life are particularly important as optimal nutrition during this period lowers morbidity and mortality; reduce the risk of chronic disease, and helps for better development (7). Therefore, exclusive breastfeeding has been identified as best diet for the first six months of life and appropriate complementary food with breast feeding after that.

Unless infants are appropriately fed, nutrition problem would arise. Under nutrition early in life clearly have major consequences for future educational, income and productivity outcomes. Globally 26% of children under five years of age were stunted in 2011. Poor nutrition in the first 1000 days of children's lives can have irreversible consequences for millions of children; it means they would be forever stunted (8).

Stunting and other forms of under nutrition reduce a child's chance of survival, while also hindering optimal health and growth. Stunting is associated with suboptimal brain development, which is likely to have long lasting harmful consequences for cognitive ability, school performance and future earnings. This in turn affects the development of potential of nations (8).

Poor nutritional status of children and women continues to be a serious problem in Ethiopia. According to Mini EDHS 2014 report, 40% of children under age of five years were stunted, 9% were wasted and 25% were under-weight (9).

Adequate nutrition during infancy and early childhood is essential to ensure the growth, health, and development of children to their full potential. EBF for the first six months confers several benefits to the infant and the mother, chief among these is the protective effect against gastrointestinal infections (10).

A cross-sectional study conducted on determinants of initiation and exclusivity of breastfeeding in Al Hassa, Saudi Arabia (2011). The data were collected from 641 mothers with singleton infants approximately 24 months old attending well baby clinic. This study showed that 77.8% of mothers initiated breastfeeding within the first 24 hours of childbirth. Exclusive breastfeeding at one month was reported in 76.1%, which declined to 32.9% and 12.2% at the age of 2 and 6 months, respectively. In Saudi Arabia there has been a considerable change in the pattern of breastfeeding in recent decades due to population transition and a result of advancement in

socioeconomic status. Increased maternal age, multiparity, and vaginal delivery were significant positive predictors for early breast feeding initiation within 24 hours of child birth. This study identified rural, less educated, and low income multiparous mothers were more likely to breastfeed their infants exclusively. Early breastfeeding initiations and exclusivity were significantly influenced by socio-demographics, especially maternal education and employment status. The researcher concludes that the rate of initiation and exclusivity of breastfeeding is far below the WHO recommendation (11).

A descriptive cross sectional survey was conducted in Nairobi Kenya (2010) to assess the relationship between breastfeeding practice and nutritional status of children aged 0-24 months. It showed that almost all mothers 99.0% had breastfed their children, of those breastfed 61.1% were reported to have initiated breastfeeding within one hour of child birth. This study identified that the risk of being underweight was higher among children who had discontinued breastfeeding and those who had not been exclusively breastfed for the first 6 months. Failure to initiate breastfeeding within one hour of child birth was found to be a significant ($p \leq 0.05$) risk factor to stunting. Besides, children who were not breastfed within one hour of birth and those who had pre-lacteal feeds were twice and one and half times respectively, likely to be stunted. Researchers conclude that discontinuation of breastfeeding before the age of 24 months, lack of exclusive breastfeeding, bottle feeding and late initiation of breastfeeding are major risk factors to malnutrition among children less than 24 months of age. Finally, it was recommended that a behavior change communication program designed to emphasize on the importance of exclusive breastfeeding for the first 6 months of age in its contribution to healthy growth and development of a child (12).

A community based cross sectional study was conducted to investigate on the determinants of exclusive breast feeding in urban slums of Gwalior, India from November 2005 to July 2006. The data were collected from 279 mother and care giver with infants aged between 6 to 11 months. The study showed that only 3.8% of mothers knew the exclusive breastfeeding should be done till 6 months and 7.8% practiced exclusive breastfeeding (EBF). Pre and post lacteal feeds were given for 63.8% and 76.0% newborns with 26.8% discarding colostrums. The early breastfeeding initiation, antenatal clinic visits, mothers' education, and immunization visits were significantly associated with higher probability of EBF (13).

A descriptive mixed method study on knowledge, attitude and practice related to infant feeding among women in rural Papua New Guinea was conducted between August and September

2012 data were collected from 140 mothers and 98.0% of mothers were breastfeeding their babies, but only 2/3 had given colostrum to their babies. Explanation given by mothers for refusing to feed their babies colostrum, were due to cultural beliefs that “colostrum may harm the baby”. Majority of mothers (91.0%) breastfed their babies when they cried, which amounted to 7-8 times per day. Eighty three percent of mothers supported their babies under six months with additional food, supplementary feeding of babies less than six months was more common. Only 17.0% mothers practiced exclusive breastfeeding for the first six months postpartum. Most of mothers regarded breastfeeding as good. Even though most rural mothers regarded breastfeeding as the best for babies, knowledge about the benefits of breastfeeding and hazards of infant formula was very low. Almost all fathers (99.0 %) supported breastfeeding; however a quarter of fathers influenced the earlier stopping of breastfeeding. This was due to common belief in Papua New Guinea a couple should not resume sexual relations whilst a woman is breastfeeding. This study showed that the gap between exclusive breastfeeding practice in Papua New Guinea and WHO recommendation was striking. Finally researchers recommend that as exclusive breastfeeding improve infant survival more attention in health planning should be given to its promotion (14).

A cross-sectional study conducted to assess breastfeeding knowledge, attitude and practice among school teachers with the youngest child aged five years or less between April to June, 2011. Data were collected from 384 mothers in Abha Female Educational District, South Western Saudi Arabia. This study revealed that 31.0% of participants started breastfeeding their children within one hour of delivery, while exclusive breastfeeding for six months reported only by 8.3 % participants. The main reasons for stopping breastfeeding before two years were insufficient breast milk and work related problems explained by 44.0% and 38.5 % of participants respectively. Only 8.6 % had attended classes related to breastfeeding; however 68.0% indicated the willingness to attend such classes, if available in future pregnancies. This study revealed that breast milk insufficiency and adverse work related issues were the main reasons for very low rate of exclusive breastfeeding among mothers. A very low rate attendance of classes addressing the breastfeeding issues during pregnancy and an alarming finding of a high percentage of babies receiving readymade liquid formula while still in hospital were also brought out by the present study. Addressing such finding comprehensively by health care provider and decision-makers will lead to improvement of child health in the study community (15).

Another cross-sectional study was conducted among Nigerian mothers from a semi-urban community to assess knowledge, attitude and technique of breastfeeding in Nigeria, 2013. Data were collected from 383 mothers who have breastfed for 6 months and up to two years. This study showed that based on cumulative breastfeeding knowledge and attitude scores 71.3% of the respondents had good knowledge while 54.0% had positive attitude. Seventy one point three percent practiced advisable breastfeeding posture. Sitting on a chair to breastfeeding was common (64.2%); and comfort of mother/baby (60.8%) and convenience (29.5%) were the main reasons for adopting advisable breastfeeding positions. This study showed that Nigerian mothers demonstrated good knowledge and positive attitude towards breastfeeding. Breastfeeding was mostly believed to promote mother–baby bonding. Increasing length of time for maternity leave and providing designated area at work places is believed to facilitate breastfeeding (16).

A cross-sectional descriptive study conducted on knowledge and practice of exclusive breastfeeding among mothers in Gbarantoru community, Bayelsa state, was carried out in August 2013. The study showed that 59.7% of mothers knew the correct definition and duration of exclusive breastfeeding. The major source of their breastfeeding knowledge was health worker (80.6%), followed by the mass media (10.4%). All (100%) breastfed their babies in the first six months of life. However, only 26.9% of them practiced exclusive breast feeding for six months. Exclusive breastfeeding rate increased with increasing maternal age and education. Mothers who knew the benefit of exclusive breast feeding were more likely to breastfeed exclusively compared to those who did not. The researchers conclude that there is a wide gap between knowledge and practice of exclusive breastfeeding among mothers in Gbarantoru community. Finally they recommend an urgent need for more programs aimed at promoting exclusive breastfeeding as well as educating and reeducating health personnel and the general public and also EBF information programs should include its benefits for the infants, mothers, family and community. (17).

A cross sectional Community based mixed method study was conducted to assess maternal knowledge of optimal breastfeeding practices and associated factors on 383 mothers in rural community of Arba Minch Zuria (2012). The study showed that majority mothers 57.2% initiated breastfeeding within the first hour of delivery, though others delayed due to lack of time and some traditional beliefs. Majority of mothers (89.0%) considered provision of colostrums as a vaccine given to infants to prevent diseases. More than half of the mothers (55.6%)

exclusively breastfed their children for six months, and 41.2% provided water to cleanse the stomach of an infant. This study showed that maternal knowledge of optimal breastfeeding practice was directly related with paternal education level, antenatal care, having radio, using family planning and giving birth by health workers. Promotion of strong community based education and support to ensure optimal infant and young child feeding is recommended for the whole community with health workers and community leaders (18).

Further analysis of the 2005 demographic and health survey was undertaken to identify determinants of exclusive breastfeeding practice in Ethiopia. And the proportion of women who practiced EBF was found to be 49.0%. Exclusive breastfeeding was associated significantly with maternal educational level, current marital status, child age, and economical status. No association was observed regarding maternal age, place of residence, current employment of women, and access to mass media, attending antenatal care, and sex of the child. Women who are not currently married were two times more likely to breastfeed their child exclusively than those married. Infants less than two months of age were five times more likely to be on EBF than infant aged four to six months. Likewise women in the wealth index ranking middle and above were two times more likely to EBF than the reference category (3).

An institutional based qualitative and quantitative cross sectional study to assess prevalence of exclusive breastfeeding and its predictors among infants aged six months that was conducted on 422 mother infant pairs attending health institution in Jimma town, South West Ethiopia, 2013. The studies showed that prevalence of exclusive breastfeeding the majority (96.6%) of the mothers have ever breastfed their infants. The prevalence of exclusive breastfeeding was 67.2%, 24.3% and 8.4) at the age of ≤ 2 , 3-4, and > 4 months respectively with mean duration of 3.2 months. This study showed that most of study population had positive attitudes towards exclusive breastfeeding practice and being younger age (≤ 2 months), having antenatal care visit, being lower parity and having good knowledge on breastfeeding were independent predictors of exclusive breastfeeding practice. They also recommended in order to having good knowledge of optimal breastfeeding within the community, dissemination of health information to bring behavioral change about exclusive breastfeeding practice using accessible means such as mass media and public meeting places (19).

A community based cross sectional study on assessment of exclusive breastfeeding practice and associated factors was conducted in Mecha District, Amhara region (2012). Data were collected from 819 mothers with 6-12 month aged infants. The study showed that the

prevalence of exclusive breastfeeding at the age of six months was 47.13% and the median duration of EBF was five month. Mothers who reported having 3 and more antenatal visit during pregnancy, who got postnatal counseling on infant feeding, and who initiated breastfeeding immediately after birth within the first one hour were more likely to exclusive breastfeed than their counterparts. Finally the researcher concluded that prevalence of exclusive breastfeeding in the study area was below the WHO recommendation level 90%. Residence ,three and above antenatal visit ,counseling on infant feeding ,immediate initiation of breastfeeding within an hour , maternal knowledge of breastfeeding were found to be associated with exclusive breastfeeding practice. Strengthening antenatal care and postnatal care service, educating pregnant mother on immediate breastfeeding initiation, counseling mothers on infant feeding during postnatal, prioritizing urban areas for breastfeeding promotion in line with newly launched urban health extension program and other promotional efforts to improve maternal breastfeeding knowledge were recommended (20).

A descriptive cross-sectional community based study was conducted on breastfeeding practices of mothers of under five years old children in Bahir Dar City, Ethiopia. Data were collected from 415 mothers from April 15 to May 15, 2011. The study showed that breastfeeding practice were 96.4%, 69.5% mothers initiating breastfeeding within one hour of delivery. Thirty three point five percent of mothers reported feeding colostrums to their infants. The main reasons for not giving colostrum included the belief that colostrums is unclean 22.4% , colostrums makes the new born sick (43.3%) and that withholding colostrum initiates breast-milk production(34.3%) . twenty six point three percent of mothers reported giving pre-lacteal feeds to their infants. About 78.3% of mothers reported that they had heard information about exclusive breastfeeding but only 41.4% had appropriate knowledge of optimal breast feeding. Thirty eight point one percent of mothers substituted breast- milk before the child reaching six months of age. Mother's educational status, antenatal care follow-up, availability of television in the household and places of delivery were significantly associated with feeding colostrum to the infant ($p < 0.05$). This study showed that the prevalence of ever breastfeeding was almost universal but still mothers had gaps about early initiation of breastfeeding, giving the first milk for their newborns and exclusive breastfeeding. Researchers recommended that information regarding optimal breastfeeding practices should be provided for mothers and local health extension workers, and also an effort should be made to increase community awareness about the importance of optimal breastfeeding for child growth and development (21).

A community based cross-sectional survey conducted to assess the determinants of exclusive breastfeeding practice among mothers of children age less than 6 month in Bahir Dar City administration, Northwest Ethiopia (2013). The study showed that prevalence of exclusive breastfeeding was 49.1%. Mothers education level, child sex), parity, family size and early postnatal care after delivery were independent predictors of exclusive breastfeeding practice in the study area. The researcher recommended the administration should work on promoting behavior change communication about EBF practice giving special emphasis to educated mothers. Government should consider revising the legislation of the month postpartum maternity leave; and also the administration should address the problem sex bias (22).

A cross-sectional facility based study was conducted to assess knowledge, attitude and practice on breastfeeding in Klang, Malaysia between June and October 2006. The study involved 220 women with infants aged six months and the study showed that EBF prevalence was reported by 32.8%, mixed feeding was reported by 14.5% and infant formula feeding was reported by 52.7% of the respondents. The study revealed that less educated women were more likely to breastfeed than women with higher education levels. Women with high house hold income and women with male infants showed positive association with not exclusively breastfeeding the baby. This study identified that inadequate facility for breastfeeding at work place significantly reduce the duration of breastfeeding among working mothers. Researcher conclude that having baby friendly hospital and work places would probably increase the rate of six months EBF (23).

Conceptual Framework

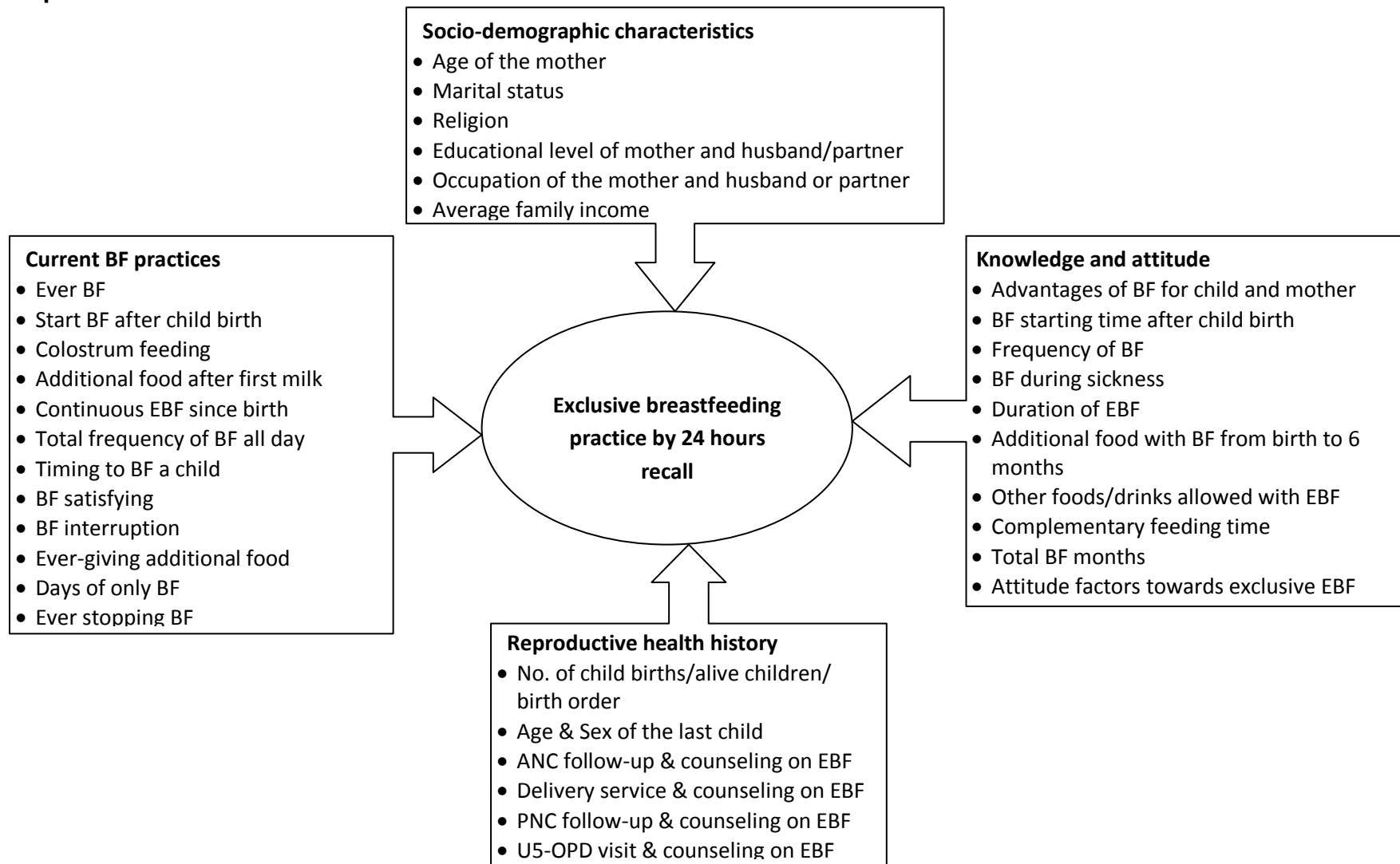


Figure 1. Conceptual framework for assessment of knowledge, attitude and practice of exclusive breastfeeding.

3. OBJECTIVES

3.1 General objective

To assess the knowledge, attitude, practice factors about exclusive breastfeeding among mothers attending immunization unit, under five years old children out patient department and postnatal unit in selected public health facilities of Arada Sub-city, Addis Ababa, Ethiopia, from March to April 2015

3.2 Specific objectives

- To assess maternal knowledge of and attitude towards exclusive breastfeeding
- To determine the prevalence of exclusive breastfeeding
- To investigate factors associated with exclusive breastfeeding

4. METHODS

4.1 Study area

Addis Ababa is the capital city of Ethiopia, a country found at the Horn of Africa. It has a projected total population of 3,384,569(CSA). There are a total of 62 health centres and 11 public hospitals in the city. There are ten sub cities in Addis Ababa (CSA 2007); the study was conducted in Arada sub city. Total population of Arada sub city is 253,455, from which 5576 (2.2%) comprise the under one year population and, the study was implemented Yekatit 12 memorial Hospital, Arada and Afenchober health centers.

4.2 Studydesign

A health facility based cross-sectional study design was used employing to collect quantitative data through face to face interview with mothers attending the three health facilities mentioned above.

4.3 Study Population

The source population was all mothers who have a child less than six months old. The study population were those mothers who came to the selected health facilities within the data collection period for any reason and who have a child less than six months old.

Inclusion criteria

- All mothers who are 18 years or older with child aged less than six months old
- All mothers able to provide consent and responses to the interview

Exclusion criteria

- All mothers unable to participate in the study because of their own or their child's sickness.
- All mothers not willing to give informed consent for interview.

4.4 Sample size

The sample size for this study was calculated Using formula for a single population proportion considering the following assumptions.

Assumptions; A 95% confidence level, margin of error (0.05), national prevalence of exclusive breastfeeding (EDHS 2011) (p=0.52) is substituted in the following single population formula.

$$N = (Z_{\alpha/2})^2 * (P (1-P)) / D^2$$

$$(1.96)^2(0.52) (1-0.52) / (0.05)^2$$

$$=383 \text{ (the total sample size of the study)}$$

Where N = required sample size,

Z = standard transformation, α is type 1 error value out of 95% confidence interval,

P = prevalence of EBF (52% from previous EDHS 2011 study),

D = margin of error

4.5 Sampling procedures

The total sample size was proportionally distributed to the three selected health facilities based on their eligible population within the data collection period. Every mother identified in the health facility within the data collection time was included in the study if she could provide consent and fulfill the criteria. Study subjects were interviewed till the total sample size achieved. The health facilities were selected purposively and the study participants were selected using simple random sampling method.

Table 1: Proportional allocation of participants from three health facilities (Yekatit 12 Hospital, Arada Health Center, and Afenchober Health Center) in Arada subcity, Addis Ababa, 2015

Health institution	Six months caseflow	Average monthly case flow	Percentage of participant	Proportion of study participant
Yekatit 12 memorial Hospital	1720	287	$287 * 100 / 469$ 61	$287 * 383 / 469$ 234
Arada health center	781	130	$130 * 100 / 469$ 28	$130 * 383 / 469$ 106
Afenchober health center	312	52	$52 * 100 / 469$ 11	$52 * 383 / 469$ 43
Total	2813	469	100	383

4.6 Data collection procedures

Structured questionnaire was developed based on the factors identified through literature review. The questionnaire was pre-tested in 10 percent of the study subjects before the start of the data collection in selected health facilities to insure the validity, reliability and other related data collection procedures in the best standard possible. After review of the questionnaire based on the pre-test findings, the final questionnaire was used to interview the selected mothers.

Data collectors and supervisor were trained for two days on the study objectives, tools and ethical procedures. Supervisor and primary investigator closely follow up the data collection activities, insuring complete and ethical data collection. At the end of the data collection, double data entry was conducted to check consistency.

4.7 Operational definitions

Exclusive breastfeeding – infant receives breast-milk (including expressed breast-milk or breast-milk from a wet nurse) and allows the infant to receive ORS, drops, syrups (vitamins, minerals, medicines), but nothing else (29).

Ever breastfeeding – breastfeeding the child at any point in time since birth.

On demand breastfeeding – breastfeeding the child whenever the baby wants or needs.

Continuous EBF since birth – breastfeeding exclusively the child since birth till the date of interview.

Timely initiation of breastfeeding – putting the neonate on the mother's breast to suckle within one hour (including one hour)

Colostrum – the first milk which is secreted from mother's breast after giving child birth.

Knowledge of exclusive breastfeeding – In this study, knowledge of exclusive breastfeeding was investigated using different questions ranging from advantage of breastfeeding for the baby and the mother, starting time of breastfeeding after child birth, frequency of breastfeeding, breastfeeding during child sickness, duration of EBF, additional foods or drinks to feed the child from birth to 6 months in addition to breastfeeding, when instructed by a health professional other things allowed to feed the child while on EBF, time to give additional complementary foods, to total breastfeeding months. Out of these, knowledge on BF starting time after child birth and additional foods and drinks to feed the child while on EBF are taken individually for further analysis.

Attitude towards exclusive breastfeeding – In this study, attitude score for exclusive breast feeding is calculated based on eight attitude related questions like breastfeeding's goodness for the baby and the mother, cosmetics effect of breastfeeding, organizational maternity leave for breastfeeding, husband/partner and family members support for breast feeding. A good attitude is identified by taking the majorities response. The total score for all of them is added (ranging from 0 to 8) and it is divided into equal three sections: poor, neutral and good attitude parts.

4.8 Data quality management

Data collectors and supervisor were trained on the study background, objective, tool and ethical procedures. After the training, the questionnaires were pre-tested on 39 mothers who have children less than six months old in a selected health facility which was not selected for the study. As a result of the pretest necessary corrections were made to some of the questions to improve the questionnaire and the data collection procedures. The data collectors training emphasized the importance of maintaining the confidentiality of the study participant information. Moreover, during the data collection process supervisor checked how the data collectors were doing their tasks including ethical procedures and verified the filled questionnaires. The primary investigator was also closely followed and monitored the overall quality of the data collection.

4.9 Data analysis procedures

Data was checked for completeness, inconsistencies, and then coded, entered, cleaned and analyzed in SPSS windows version 20.0. Basic descriptive analysis was done based on the objective of the study. Quantitative variable assessed for their odds ratio using bivariate analysis. Further multivariate analysis was done based on the degree of association. The degree of association was taken as significant at P value of less than 0.05.

4.10 Ethical consideration

This study obtained ethical clearance from College of Health Science School of Public Health, Addis Ababa University. An official letter from the College of Health Science was submitted to Addis Ababa Health Bureau. Permission was obtained from Addis Ababa Health Bureau and from respective health institutions. After getting the approval to conduct the study, ethical procedures were strictly followed throughout the study.

All study participants were informed about the study objective, confidentiality measures, benefits, risks, result dissemination, refusal and withdrawal rights and contact information of the

primary investigators for any queries. The study participants' full name and addresses information was not collected. A code was used to identify each study participant.

4.11 Dissemination of results

Finally the finding of the study will be submitted to School of Public Health College of Health Sciences, Addis Ababa University. It will be communicated to Addis Ababa Health Bureau and Arada sub city health office. In addition a copy of it will be submitted to the respective health facilities for a reference and further effort will be made to publish the finding.

5. RESULTS

Based on the total sample size of 383 mothers, in this study all the 383 eligible mother identified through the data collection period: March to April 2015, were interviewed. The response rate was 100%. Out of these, only one mother was identified to never ever have breastfed. Therefore mothers with ever breastfeeding practice were 382 (99.7%). Of these, 235 (61.5%) were interviewed at Yekatit 12 Memorial Hospital, 106 (27.5%) were interviewed at Arada Health Center, and 42 (11%) were interviewed at Afincho-ber health center.

5.1 Socio-demographic characteristics

Out of the total respondents, majority (148 (38.7%)) were in the age group 25-29 years, and the median age of the mothers was 26 years. Majority were married/living together (337 (88.2%)) followed by single (36 (9.4%)) and divorced/separated (9 (2.4%)). As to educational background, majority of mothers 111(29.1%) attended secondary level (9-10 grades) and 160(46.8%) of the husbands had attended college level and above. Most of the mothers 270 (70.7%) were Orthodox Christian religion followers, 164(44.4%) were house wives and most of the husbands 316 (92.1%) were employed in organization. The average monthly family income was found to be above 1500 birr in 253 (66.4%). The Chi-square results demonstrated that there is an association between EBF practice by 24 hours recall and marital status ($\chi^2=13.12$, $P=0.00$) and religion ($\chi^2=9.08$, $P=0.03$) as indicated in Table 2.

Table 2. Socio-demographic characteristics of study subjects, Arada sub-city, Addis Ababa, March to April 2015

Variables	EBF by 24 hours recall			χ^2 (P-value)
	Yes (n=284) No. (%)	No (n=98) No. (%)	Total (n=382) No. (%)	
Mother's age groups (Mean=26.63 yrs, Median=26 yrs, SD=4.816 yrs)				1.11 (0.57)
18-19 years	18 (6.3)	2 (2.0)	20 (5.2)	
20-24 years	83 (29.2)	29 (29.6)	112 (29.3)	
25-29 years	111 (39.1)	37 (37.8)	148 (38.7)	
30-34 years	47 (16.5)	23 (23.5)	70 (18.3)	
35 years & above	27 (8.8)	7 (7.1)	34(8.4)	
Marital status				13.12 (0.00)
Single	27 (9.5)	9 (9.2)	36 (9.4)	
Married/Living together	255 (89.8)	82 (83.7)	337 (88.2)	
Separated/Divorced	2 (0.7)	7 (7.1)	9 (2.4)	
Educational level of mother				1.93 (0.38)
Illiterate	25 (8.8)	8 (8.2)	33 (8.6)	
Read and write only	13 (4.6)	1 (1.0)	14 (3.7)	
Elementary 1-8th grade	53 (18.7)	29 (29.6)	82 (21.5)	
Secondary 9-10th grade	87 (30.6)	24 (24.5)	111 (29.1)	
Preparatory 11-12th grade	35 (12.3)	11 (11.2)	46 (12.0)	
College level & above	71 (25.0)	25 (25.5)	96 (25.1)	
Educational level of husband				2.92 (0.71)
Illiterate	5 (1.9)	1 (1.2)	6 (1.8)	
Read and write only	3 (1.2)	3 (3.6)	6 (1.8)	
Elementary 1-8th grade	32 (12.4)	10 (12.0)	42 (12.3)	
Secondary 9-10th grade	40 (15.4)	11 (13.3)	51 (14.9)	
Preparatory 11-12th grade	60 (23.2)	17 (20.5)	77 (22.5)	
College level & above	119 (45.9)	41 (49.4)	160 (46.8)	
Religion				9.08 (0.03)
Orthodox	193 (68.0)	77 (78.6)	270 (70.7)	
Muslim	57 (20.1)	7 (7.1)	64 (16.8)	
Protestant	31 (10.9)	12 (12.2)	43 (11.3)	
Catholic	3 (1.1)	2 (2.0)	5 (1.3)	
Occupation of mother				1.93 (0.38)
House wife	128 (46.5)	36 (38.3)	164 (44.4)	
Employed	116 (42.2)	46 (48.9)	162 (43.9)	
House maid/Daily laborer/Student	31 (11.3)	12 (12.8)	43 (11.7)	
Occupation of husband/partner				0.03 (0.86)
Employed	239 (92.3)	77 (91.7)	316 (92.1)	
Daily laborer/Student	20 (7.7)	7 (8.3)	27 (7.9)	
Average monthly family income				2.32 (0.51)
0-500 birr	26 (9.2)	11 (11.2)	37 (9.7)	
501-1000 birr	25 (8.8)	6 (6.1)	31 (8.1)	
1001-1500 birr	48 (17.0)	12 (12.2)	60 (15.7)	
Above 1500 birr	184 (65.0)	69 (70.4)	253 (66.4)	

5.2 Reproductive health history

The reproductive health history of the study subjects are presented below in Table 3. Of those that practiced EBF by 24 hours recall, almost half of mothers (147 (51.8%)) had given birth to one child, with 152 (53.5%) having one alive children and 148 (52.1%) having their first child. Age of the last child is found to be majorly within 60 to 119 days (150 (52.8%)) and those within 0 to 119 days were 246 (86.6%). A 149 (52.5%) of the study participants had male child. Majority of the mothers 262 (92.3%) had Antenatal care (ANC) follow-up for the last pregnancy and 96 (36.6%) had 4 ANC visits (mean number of ANC visits is 4.55 (SD-1.329)). Of those that had ANC follow-up for their last pregnancy, 150 (57.3%) reported that they have been counseled about EBF. Government hospital birth was reported among 165 (58.1%) mothers and 174 (62.1%) mothers were counseled about EBF during delivery. Post-natal care (PNC) follow-up for the last child birth was reported by 189 (67.7%) mothers, with 126 (67%) having one PNC visit (mean=1.39, SD=0.608). Of those with a PNC visit, 130 (68.8%) were counseled about EBF. A visit to the vaccination room or under-5 year's children out-patient department (U5OPD) was practiced by 187 (65.8%) mothers and among these, 104 (55.3%) mothers stated that they have been counseled about EBF. The Chi-square results demonstrated that there is no variable with significant association towards EBF practice by 24 hours recall as indicated in Table 3.

Table 3. Reproductive health history of the study subjects, Arada sub-city, Addis Ababa, March to April 2015

Variables	EBF by 24 hours recall			χ^2 (P-value)
	Yes (n=284) No. (%)	No (n=98) No. (%)	Total (n=382) No. (%)	
Number of child births (Mean=1.7, SD=0.982)				6.32 (0.39)
Gave birth once	147 (51.8)	59 (60.2)	206 (53.9)	
Gave birth twice	91 (32.0)	28 (28.6)	119 (31.2)	
Gave birth 3 or more times	46 (16.4)	11 (11.2)	57 (14.9)	
Number of alive children (Mean=1.65, SD=0.922)				7.66 (0.18)
One child	152 (53.5)	61 (62.2)	213 (55.8)	
Two children	91 (32.0)	28 (28.6)	119 (31.2)	
3 or more children	41 (14.4)	9 (9.2)	50 (13.1)	
Number of birth order of the last child (Mean=1.69, SD=0.973)				5.75 (0.45)
First child	148 (52.1)	59 (60.2)	207 (54.2)	
Second child	92 (32.4)	28 (28.6)	120 (31.4)	
Third or more child	44 (15.7)	11 (11.2)	55 (14.4)	
Sex of the last child				0.95 (0.33)
Male	149 (52.5)	57 (58.2)	206 (53.9)	
Female	135 (47.5)	41 (41.8)	176 (46.1)	
ANC follow-up for the last pregnancy				0.02 (0.90)
Yes	262 (92.3)	90 (91.8%)	352 (92.1)	
No	22 (7.7)	8 (8.2)	30 (7.9)	
Number of ANC follow-ups (Mean=4.55, SD=1.329) ¹				7.61 (0.47)
Less than 4 visits	56 (21.3)	10 (11.1)	66 (18.8)	
4 visits	96 (36.6)	33 (36.7)	129 (36.6)	
More than 4 visits	110 (42.0)	47 (52.3)	157 (44.6)	
Counseling about EBF during ANC ¹				0.01 (0.93)
Yes	150 (57.3)	52 (57.8)	202 (57.4)	
No	112 (42.7)	38 (42.2)	150 (42.6)	
Place of birth of last child				0.65 (0.89)
Home	4 (1.4)	1 (1.0)	5 (1.3)	
Government HC	77 (27.1)	29 (29.6)	106 (27.7)	
Government hospital	165 (58.1)	53 (54.1)	218 (57.1)	
Private health facility	38 (13.4)	15 (15.3)	53 (13.9)	
Counseling about EBF during delivery ²				0.90 (0.34)
Yes	174 (62.1)	55 (56.7)	229 (60.7)	
No	106 (37.9)	42 (43.3)	148 (39.3)	
PNC follow-up for the last delivery				3.33 (0.07)
Yes	188 (67.4)	56 (57.1)	244 (64.7)	
No	91 (32.6)	42 (42.9)	133 (35.3)	
Number of PNC follow-ups (Mean=1.39, SD=0.608) ³				0.42 (0.94)
1 visit	126 (67.0)	39 (69.6)	165 (67.6)	
2 visits or more	62 (32.9)	17 (30.4)	79 (32.2)	
Counseling about EBF during PNC ³				1.82 (0.18)
Yes	129 (68.6)	33 (58.9)	162 (66.4)	
No	59 (31.4)	23 (41.1)	82 (33.6)	
Vaccination/U5OPD visits				0.02 (0.73)
Yes	188 (66.2)	63 (64.3)	251 (65.7)	
No	96 (33.8)	35 (35.7)	131 (34.3)	
Counseling about BF during vaccination/U5OPD ⁴				2.24 (0.14)
Yes	104 (55.3)	28 (44.4)	132 (52.6)	
No	84 (44.7)	35 (55.6)	119 (47.4)	

¹Out of those mother who had ANC follow-up in the latest pregnancy (n=352)

²Out of those mother who delivered in Government and private health facilities (n=377)

³Out of those mother who had PNC follow-up in the latest pregnancy (n=244)

⁴Out of those mother who visited Vaccination unit/U5OPD (n=251)

5.3 Knowledge of Exclusive Breastfeeding

The specific variables results on knowledge of exclusive breastfeeding are presented below in Table 4. Out of those who practiced EBF by 24 hours recall, more than half of the mothers mentioned the three advantages of breastfeeding for the baby: best diet for the newborn (167, 58.8%), prevents disease (229, 80.6%), and the baby grows best (197, 69.4%). Bonds mother and child was only mentioned by 61 (21.5%) mothers. Also almost a third of the mothers have described the advantages of breastfeeding for the mother: prevents pregnancy (85, 30%), prevents disease (105, 37.1%), saves money (78, 27.6%) and bonds mother and child (94, 33.2%). Allowing quick recovery of the uterus was described by 16 (5.7%) mothers. However 52 (18.4%) mothers have stated that breastfeeding has no use.

Initiation of breastfeeding within one hour birth was stated by 237 (84.3%) mothers. And the frequency of breastfeeding was stated to be whenever the child wants by 170 (59.9%) mothers. Almost all of the mothers 265 (93.3%) had reported that they breastfed their child during sickness. Duration of exclusive breastfeeding was correctly conveyed to be 6 months by 272 (95.8%) and no additional foods or drinks should be fed to the child from birth up to 6 months in addition to breastfeeding was testified by 255 (89.8%) mothers. However among the other things allowed to be given while breastfeeding only, vitamin preparations were reported by 25 (12.8%) mothers, medicine preparations by 167 (85.6%) mothers and one mother (0.5%) reported mineral preparations.

Timing to give additional complementary foods was described to be after 6 months by 267 (94%) mothers (mean=5.97 months, SD=0.749). And the total breastfeeding duration in months was recounted to be 13 to 24 months majorly by 171 (60.2%) mothers.

The Chi-square results demonstrated that there is an association between EBF practice by 24 hours recall and knowledge of additional foods or drinks a child to be fed from birth up to 6 months in addition to BF ($\chi^2=64.95$, $P=0.00$) and knowledge of timing to give additional complementary foods ($\chi^2=7.96$, $P=0.01$) as indicated in Table 4.

Table 4. Knowledge of exclusive breast feeding of the study subjects, Arada sub-city, Addis Ababa, March to April 2015.

Variables	EBF by 24 hours recall			χ^2 (P-value)
	Yes (n=284) No. (%)	No (n=98) No. (%)	Total (n=382) No. (%)	
Advantage of BF for baby ⁵				
Best diet for newborn	167 (58.8)	57 (58.2)	224 (58.6)	0.01 (0.91)
Prevents disease	229 (80.6)	83 (84.7)	312 (81.7)	0.80 (0.37)
Bonds mother and child	61 (21.5)	19 (19.4)	80 (20.9)	0.19 (0.66)
Grows best	197 (69.4)	67 (68.4)	264 (69.1)	0.03 (0.85)
Advantage of BF for mother ⁵				
Allows quick recovery of the uterus	16 (5.7)	2 (2.0)	18 (4.7)	2.11 (0.15)
Prevents pregnancy	85 (30.0)	27 (27.6)	112 (29.4)	0.22 (0.64)
Prevents disease	105 (37.1)	40 (40.8)	145 (38.1)	0.43 (0.51)
Saves money	78 (27.6)	30 (30.6)	108 (28.3)	0.33 (0.56)
Bonds mother and child	94 (33.2)	26 (26.5)	120 (31.5)	1.51 (0.22)
No use	52 (18.4)	19 (19.4)	71 (18.6)	0.05 (0.82)
Starting time of breastfeeding (Mean=1.27, SD=0.669)				4.83 (0.18)
Within one hour of delivery	237 (84.3)	75 (78.9)	312 (83.0)	
Within 6 hours of delivery	25 (8.9)	10 (10.5)	35 (9.3)	
After 6 hours but within 24 hours of delivery	15 (5.3)	5 (5.3)	20 (5.3)	
After 24 hours but within 48 hours of delivery	4 (1.4)	5 (5.3)	9 (2.4)	
Frequency of breastfeeding ⁵				
Whenever the child wants	170 (59.9)	61 (62.2)	231 (60.5)	0.17 (0.68)
Whenever the mother wants	63 (22.2)	15 (15.3)	78 (20.4)	2.12 (0.15)
On schedule	121 (42.6)	44 (44.9)	165 (43.2)	0.16 (0.69)
Breastfeeding during sickness				0.24 (0.62)
Yes	265 (93.3)	90 (91.8)	355 (92.9)	
No	19 (6.7)	8 (8.2)	27 (7.1)	
Duration of EBF (Mean=5.92, SD=0.771)				9.18 (0.10)
6 months	272 (95.8)	86 (87.8)	358 (93.7)	
Other response	12 (4.2)	12 (12.2)	24 (6.3)	
Additional foods or drinks a child to be fed from birth up to 6 months in addition to BF				64.95 (0.00)
None	255 (89.8)	53 (54.1)	308 (80.6)	
Plain water	12 (4.2)	14 (14.3)	26 (6.8)	
Water-sugar/salt solutions	1 (0.4)	2 (2.0)	3 (0.8)	
Cow's milk	7 (2.5)	5 (5.1)	12 (3.1)	
Formula milk	9 (3.2)	24 (24.5)	33 (8.6)	
When instructed by a health professional, other things allowed while BF only				2.86 (0.41)
Vitamins preparation	25 (12.8)	10 (14.5)	35 (13.3)	
Mineral preparation	1 (0.5)	2 (2.9)	3 (1.1)	
Medicine preparations	167 (85.6)	56 (81.2)	223 (84.5)	
Duration to give additional complementary foods (Mean=5.97, SD=0.749)				7.96 (0.01)
6 months	267 (94.0)	87 (88.8)	354 (92.7)	
Other response	17 (6.0)	11 (11.1)	28 (7.4)	
Total breastfeeding months (Mean=21.6, SD=8.712)				3.46 (0.33)
6 months or less	18 (6.3)	5 (5.1)	23 (6.0)	
7-12 months	54 (19.0)	25 (25.5)	79 (20.7)	
13-24 months	171 (60.2)	50 (51.0)	221 (57.9)	
25 months or more	41 (14.4)	18 (18.4)	59 (15.4)	

⁵Multiple response variable.

5.4 Attitude towards Exclusive Breastfeeding

The specific variable results on attitude towards exclusive breastfeeding are presented below in Table 5. EBF being good for the baby because breast milk is the best food for the child was majorly agreed by 380 mothers (99.5%). EBF not being good because of its cosmetic effect on the mother's shape was not agreed by 323 mothers (84.6%). Maternity leave of three months being enough for successful EBF was not agreed by 243 mothers (63.6%). The household economic capacity determining the mother's EBF practice was not agreed by 239 mothers (62.6%). EBF having advantage for the mother because it prevents pregnancy was agreed by 203 mothers (53.1%). EBF helping the child to grow well was agreed by 376 mothers (98.4%). Husband/partner support for EBF was reported by 311 mothers (89.6%) and other family members support for EBF was reported by 291 mothers (76.8%). The total attitude score towards exclusive breastfeeding was found to be nearly equally good and neutral among 137 (48.2%) and 133 (46.8%) respectively. Out of the total eight attitude questions, the mean attitude score was 6.19 (SD=1.419). The Chi-square results demonstrated that there is an association between EBF practice by 24 hours recall and Maternity leave of three months being enough for successful EBF ($\chi^2=15.77$, $P=0.00$) as presented below in Table 5.

Table 5. Attitude towards exclusive breastfeeding of the study subjects, Arada sub-city, Addis Ababa, March to April 2015.

Variables	EBF based on 24 hours recall			
	Yes (n=284) No. (%)	No (n=98) No. (%)	Total (n=382) No. (%)	χ^2 (P-value)
EBF is good for my baby because breast milk is the best food for the child				0.69 (0.71)
Agree	282 (99.3)	98 (100.0)	380 (99.5)	
Neutral	1 (0.4)	0 (0.0)	1 (0.3)	
Don't agree	1 (0.4)	0 (0.0)	1 (0.3)	
EBF is not good because cosmetically affects the mother's shape				0.57 (0.90)
Agree	26 (9.2)	11 (11.2)	37 (9.7)	
Neutral	4 (1.4)	2 (2.0)	6 (1.6)	
Don't agree	242 (85.2)	81 (82.7)	323 (84.6)	
Don't know	12 (4.2)	4 (4.1)	16 (4.2%)	
Maternity leave of three months is enough to successful EBF				15.77 (0.00)
Agree	19 (6.7)	16 (16.3)	35 (9.2)	
Neutral	44 (15.5)	5 (5.1)	49 (12.8)	
Don't agree	180 (63.4)	63 (64.3)	243 (63.6)	
Don't know	41 (14.4)	14 (14.3)	55 (14.4)	
The household economic capacity determines the mother's EBF practice				4.49 (0.21)
Agree	77 (27.1)	35 (35.7)	112 (29.3)	
Neutral	12 (4.2)	2 (2.0)	14 (3.7)	
Don't agree	184 (64.8)	55 (56.1)	239 (62.6)	
Don't know	11 (3.9)	6 (6.1)	17 (4.5)	
EBF has an advantage to the mother because it prevents pregnancy				0.86 (0.84)
Agree	154 (54.2)	49 (50.0)	203 (53.1)	
Neutral	6 (2.1)	3 (3.1)	9 (2.4)	
Don't agree	67 (23.6)	23 (23.5)	90 (23.6)	
Don't know	57 (20.1)	23 (23.5)	80 (20.9)	
EBF the baby helps the child to grow well				1.06 (0.79)
Agree	280 (98.6)	96 (98.0)	376 (98.4)	
Neutral	2 (0.7)	1 (1.0)	3 (0.8)	
Don't agree	1 (0.4)	1 (1.0)	2 (0.5)	
Don't know	1 (0.4)	0 (0.0)	1 (0.3)	
Husband/partner supports EBF				1.82 (0.18)
yes	239 (90.9)	72 (85.7)	311 (89.6)	
No	24 (9.1)	12 (14.3)	36 (10.4)	
Other family members support EBF				3.01 (0.08)
yes	221 (78.6)	70 (71.4)	291 (76.8)	
No	60 (21.4)	28 (28.6)	88 (23.2)	
Total attitude score towards EBF (Mean= 6.19, SD=1.419)				3.68 (0.16)
Poor	14 (4.9)	10 (10.2)	24 (6.3)	
Neutral	133 (46.8)	46 (46.9)	179 (46.9)	
Good	137 (48.2)	42 (42.9)	179 (46.9)	

5.5 Current practice of exclusive breastfeeding

The current practice of EBF by 24 hours recall, as shown in Table 6, is 74.3% (284 mothers) with comparatively higher practice among those mothers with a child between 60 to 119 days old, 150 (52.8%). And practice of continuous EBF since birth till the date of interview was found to be 66.2% (253 mothers) with comparatively higher practice among those mothers with a child between 60 to 119 days old 129 (51.0%). The Chi-square results have shown significant association of the child age groups with both EBF by 24 hours recall ($\chi^2=8.58$, $P=0.01$) and continuous EBF since birth ($\chi^2=7.62$, $P=0.02$).

Table 6: Proportion of EBF practice of the study subjects by their children's age groups, Arada sub-city, Addis Ababa, March to April 2015.

Variables	EBF by 24 hours recall			
	Yes (n=284) No. (%)	No (n=98) No. (%)	Total (n=382) No. (%)	χ^2 (P-value)
Child Age group (Mean=75.23, Median=70, SD=35.397)				8.58 (0.01)
0-59 days	96 (33.8)	22 (22.4)	118 (30.9)	
60-119 days	150 (52.8)	52 (53.1)	202 (52.9)	
120-179 days	38 (13.4)	24 (24.5)	62 (16.2)	
Variables	Continuous EBF since birth			
	Yes (n=253) No. (%)	No (n=129) No. (%)	Total (n=382) No. (%)	χ^2 (P-value)
Child Age group				7.62 (0.02)
0-59 days	89 (35.2)	29 (22.5)	118 (30.9)	
60-119 days	129 (51.0)	73 (56.6)	202 (52.9)	
120-179 days	35 (13.8)	27 (20.9)	62 (16.2)	

The detailed current practices of exclusive breastfeeding are presented below in Table 7. All mothers, 382 (99.7%), had ever breastfed their child at some point in time in the past. Practice of exclusive breastfeeding by 24 hours recall was done by 284 mothers (74.3%). Of these, about three quarters of the mothers 205 (73.5%) started breastfeeding within one hour of child birth. Almost all mothers 274 (96.5%) gave the colostrum to their newborn. Providing additional foods or drinks after feeding the colostrum was reported by only 17 (6%) mothers. These additional foods include plain water (6 (35.3%)), water-sugar/salt solution (3 (17.6%)), formula milk (8 (47.1%)) and cow's milk (1 (5.9%)). Among those who did not practice EBF by 24 hours recall, the additional foods given in the past 24 hours include plain water (29 (29.9%)), cow's milk (18 (18.6%)), formula milk (63 (64.9%)) and butter (1 (1.0%)). The total frequency of breastfeeding within a day was 8 to 12 times in 188 (66.4%) mothers. Majority of the mothers

202 (71.1%) also reported that they breastfed their child whenever he/she needs. Breastfeeding when the child was sick, was described by 41 (14.4%) mothers, based on the mothers schedule was described by 98 (34.5%) mothers and when the breast was engorged was described by 29 (10.2%) mothers. In addition almost all mothers testified that they satisfy their child by breastfeeding 262 (92.3%) and do not interrupt breastfeeding 267 (94%).

Of those practicing EBF by 24 hours recall, continuous exclusive breastfeeding since birth was reported by 253 (89.1%) mothers. Of those who did not practice continuous exclusive breastfeeding since birth, 19 (61.3%) mothers stated that they have started additional foods with breastfeeding within 0 day (mean 22.09 days, SD=31.658). These additional foods include plain water, formula milk, water sugar/salt solution and cow's milk. The duration of only breastfeeding was found to be majorly 31 to 60 days in 104 (36.6%) mothers (mean 54.92 days, SD=40.905 days). Only one mother (0.4%) conveyed that she has stopped breastfeeding within 7 days of child birth and the reason was because the child was sick.

The Chi-square results have shown that there is association between EBF practice by 24 hours recall and starting time of breastfeeding after child birth ($\chi^2=22.54$, $P=0.00$), feeding colostrum ($\chi^2=4.94$, $P=0.03$), practice of giving additional foods or drinks after colostrum ($\chi^2=62.72$, $P=0.00$) (especially formula milk), total frequency of breastfeeding within a day ($\chi^2=139.15$, $P=0.00$), breastfeeding when the baby needs ($\chi^2=6.01$, $P=0.01$), satisfying the baby by breastfeeding ($\chi^2=161.61$, $P=0.00$), continuous exclusive breastfeeding since birth to the date of the interview ($\chi^2=258.52$, $P=0.00$), practice of giving water and sugar/salt solution ($\chi^2=9.71$, $P=0.00$) and formula milk ($\chi^2=10.65$, $P=0.00$) in addition to breast milk, duration of exclusive breastfeeding since birth ($\chi^2=110.78$, $P=0.00$), and ever stopping to breastfeed ($\chi^2=13.49$, $P=0.00$).

Table 7: Current practice of exclusive breastfeeding of the study subjects, Arada sub-city, Addis Ababa, March to April 2015.

Variables	EBF by 24 hours recall			
	Yes (n=284) No. (%)	No (n=98) No. (%)	Total (n=382) No. (%)	χ^2 (P-value)
Ever breastfeeding				
Yes	284 (74.3)	98 (25.7)	382 (100.0)	
Start breastfeeding after birth				22.54 (0.00)
Within one hour of delivery	205 (73.5)	47 (49.0)	252 (67.2)	
Within six hours of delivery	42 (15.1)	22 (22.9)	64 (17.1)	
After six hours of delivery but within 24 hours	13 (4.7)	14 (14.6)	27 (7.2)	
After 24 hours of delivery but within 48 hours	19 (6.8)	13 (13.5)	32 (8.5)	
Feed colostrum				4.94 (0.03)
Yes	274 (96.5)	89 (90.8)	363 (95.0)	
No	10 (3.5)	9 (9.2)	19 (5.0)	
Additional foods or drinks after colostrum				62.72 (0.00)
Yes	17 (6.0)	38 (38.8)	55 (14.5)	
No	264 (94.0)	60 (61.2)	324 (85.5)	
Additional foods after colostrum ^b				
Plain water	6 (35.3)	9 (23.7)	15 (27.3)	0.80 (0.37)
Water sugar/salt solution	3 (17.6)	2 (5.3)	5 (9.1)	2.18 (0.14)
Cow's milk	1 (5.9)	3 (7.9)	4 (7.3)	0.07 (0.79)
Formula milk	8 (47.1)	30 (78.9)	38 (69.1)	5.59 (0.02)
Additional food in the past 24 hours ^b				
Plain water	0 (0.0)	29 (29.9)	29 (29.9)	
Cow's milk	0 (0.0)	18 (18.6)	18 (18.6)	
Formula milk	0 (0.0)	63 (64.9)	63 (64.9)	
Butter	0 (0.0)	1 (1.0)	1 (1.0)	
Total frequency of BF within a day grouped (Mean=10.8, SD=3.125)				139.15 (0.00)
Less than 8 times	4 (1.4)	47 (48.0)	51 (13.4)	
8 to 12 times	188 (66.4)	42 (42.9)	230 (60.4)	
More than 12 time	91 (32.2)	9 (9.2)	100 (26.2)	
Schedule of breastfeeding ^b				
When the baby needs	202 (71.1)	82 (83.7)	284 (74.3)	6.01 (0.01)
When the baby cries	57 (58.2)	157 (55.2)	214 (56.0)	0.25 (0.62)
When the baby is sick	41 (14.4)	9 (9.2)	50 (13.1)	1.77 (0.18)
On your schedule	98 (34.5)	26 (26.5)	124 (32.5)	2.11 (0.15)
When your breast is engorged	29 (10.2)	8 (8.2)	37 (9.7)	0.35 (0.55)
Satisfy by breastfeeding				161.61 (0.00)
Yes	262 (92.3)	28 (28.6)	290 (75.9)	
No	22 (7.7)	70 (71.4)	92 (24.1)	
Usually interrupt breastfeeding				2.94 (0.09)
Yes	17 (6.0)	11 (11.2)	28 (7.3)	
No	267 (94.0)	87 (88.8)	354 (92.7)	
Continuous EBF since birth				258.52 (0.00)
Yes	253 (89.1)	0 (0.0)	253 (66.2)	
No	31 (10.9)	98 (100.0)	129 (33.8)	
Timing of ever giving additional food with breast milk (Mean=22.09, SD=31.658)				1.44 (0.49)
0 day	19 (61.3)	54 (55.1)	73 (56.6)	
Within 30 days	5 (16.1)	26 (26.5)	31 (24.0)	
More than 30 days	7 (22.6)	18 (18.4)	25 (19.4)	

^bMultiple response variable

Variables	EBF by 24 hours recall			
	Yes (n=284) No. (%)	No (n=98) No. (%)	Total (n=382) No. (%)	χ^2 (P-value)
Foods in addition to breast milk ⁷				
Plain water	15 (48.4)	30 (30.6)	45 (34.9)	3.28 (0.07)
Water sugar/salt solution	3 (9.7)	0 (0.0)	3 (2.3)	9.71 (0.00)
Cow's milk	3 (9.7)	22 (22.4)	25 (19.4)	2.46 (0.12)
Formula milk	11 (35.5)	67(68.4)	78 (60.5)	10.65 (0.00)
Butter	0 (0.0)	2 (2.0)	2 (1.6)	0.64 (0.42)
Days of only BF grouped (Mean=54.92, SD=40.905)				110.78 (0.00)
30 days or less	59 (20.8)	78 (79.6)	137 (35.9)	
31-60 days	104 (36.6)	11 (11.2)	115 (30.1)	
61-90 days	76 (26.8)	5 (5.1)	81 (21.2)	
91-120 days	28 (9.9)	4 (4.1)	32 (8.4)	
121-150 days	16 (5.6)	0 (0.0)	16 (4.2)	
151 days or more	1 (0.4)	0 (0.0)	1 (0.3)	
Ever stop breastfeeding				13.49 (0.00)
Yes	1 (0.4)	6 (6.1)	7 (1.8)	
No	283 (99.6)	92 (93.9)	375 (98.2)	
Timing of ever stopping breastfeeding (Mean=27.43, SD=30.127)				1.56 (0.21)
7 days or less	1 (100.0)	2 (33.3)	3 (42.9)	
More than 7 days	0 (0.0)	4 (66.7)	4 (57.1)	
Reason to stop breastfeeding ⁷				
No breast milk	0 (0.0)	1 (16.7)	1 (14.3)	0.19 (0.66)
Breast sickness	0 (0.0)	1 (16.7)	1 (14.3)	0.19 (0.66)
The mother was sick	0 (0.0)	2 (33.3)	2 (28.6)	0.47 (0.50)
The child was sick	1 (100.0)	1 (16.7)	2 (28.6)	2.92 (0.09)

⁷Multiple response variable

5.6 Bivariate and Multivariate Analyses

The bivariate and multivariate analysis results are presented below in Table 8. Both of these analyses were done by using logistic regression in SPSS software. The bivariate analysis was done by associating selected independent variables with the outcome variable, Exclusive breastfeeding practice by 24 hours recall. Then the multivariate analysis was done to identify the predictor variables by controlling for the independent variables including confounders.

The bivariate analysis has identified significantly associated variables with Exclusive breastfeeding practice by 24 hours recall. On the total frequency of breastfeeding practice, those mothers feeding 8 to 12 times within a day have shown significant association ($P < 0.05$) (COR=0.443, 95% CI (0.207, 0.949)) compared with those that breastfeed more than 12 times within a day. Those variables that demonstrated strong significant association ($P < 0.01$) include those separated/divorced (COR=0.095, 95% CI (0.017, 0.544)) compared with the singles, and those mothers that have 120 to 179 days old children (COR=0.363, 95% CI (0.182, 0.723)) compared with those mother that have 0 to 59 days old children. All of the three variables have shown reduced practice of Exclusive breastfeeding practice by 24 hours recall.

Those variables that revealed a very strong significant association ($P < 0.001$) include other respondents in the knowledge of additional food to be given with breast milk from birth to 6 months (COR=0.134, 95% CI (0.077, 0.233)) compared with those that responded no additional food, and total frequency of breastfeeding practice being less than 8 times within a day (COR=0.008, 95% CI (0.002, 0.029)) compared with those mothers that feed more than 12 times within a day. Both variables have shown reduced practice of Exclusive breastfeeding practice by 24 hours recall.

In the multivariate analysis of Exclusive breastfeeding practice by 24 hours recall, age of the mother being greater than 29 years (AOR=0.317, 95% CI (0.109, 0.918)) compared with those mothers less than 25 years, age of the last child being 120 to 179 days (AOR=0.317, 95% CI (0.112, 0.901)) compared with those children 0 to 59 days old and total frequency of breastfeeding practice being 8 to 12 times within a day (AOR=0.368, 95% CI (0.155, 0.961)) compared with those mothers feeding more than 12 times have shown significant association ($P < 0.05$). All the three variables have revealed reduced Exclusive breastfeeding practice by 24 hours recall.

Other respondents in knowledge of additional food to be given with breast milk from birth to 6 months (AOR=0.068, 95% CI (0.028, 0.168)) compared with those that responded no additional

food and total frequency of breastfeeding practice being less than 8 times within a day (AOR=0.004, 95% CI (0.001, 0.02)) compared with those mothers that feed more than 12 times within a day have shown a very strong significant association ($P<0.001$). Both variables have shown reduced practice of Exclusive breastfeeding practice by 24 hours recall.

Table 8: Bivariate and multivariate analyses results of Exclusive breastfeeding practice by 24 hours recall, Arada sub-city, Addis Ababa, March to April, 2015

Variables	COR (95% C.I.)	AOR (95% C.I.)
Age of the mother		
Less than 25 years	1	1
25-29 years	0.921 (0.532, 1.593)	0.469 (0.183, 1.198)
Greater than 29 years	0.737 (0.41, 1.324)	0.317* (0.109, 0.918)
Marital status		
Single	1	1
Married/Living together	1.037 (0.468, 2.294)	1.551 (0.309, 7.784)
Separated/Divorced	0.095** (0.017, 0.544)	0.314 (0.024, 4.108)
Educational status of the mother		
Elementary level & below	0.813 (0.476, 1.389)	1.155 (0.408, 3.269)
Secondary level	1.231 (0.683, 2.219)	2.21 (0.764, 6.396)
Preparatory & College levels	1	1
Occupation of the mother		
House wife	1	1
Employed	0.709 (0.429, 1.173)	0.89 (0.364, 2.175)
House maid/Daily laborer/Student	0.727 (0.339, 1.557)	0.657 (0.157, 2.752)
Number of child births		
Gave birth once	1	1
Gave birth twice	1.304 (0.775, 2.195)	0.587 (0.237, 1.455)
Gave birth three or more times	1.678 (0.814, 3.462)	1.007 (0.296, 3.429)
Age of the last child		
0-59 days	1	1
60-119 days	0.661 (0.377, 1.158)	0.564 (0.236, 1.348)
120-179 days	0.363** (0.182, 0.723)	0.317* (0.112, 0.901)
ANC follow-up for the last pregnancy		
Yes	1	1
No	0.945 (0.406, 2.197)	0.737 (0.138, 3.925)
PNC follow-up for the last delivery		
Yes	1	1
No	0.645 (0.403, 1.035)	0.72 (0.318, 1.628)
Knowledge of breastfeeding starting time after child birth		
Within one hour delivery	1	1
Other response	0.696 (0.386, 1.255)	1.77 (0.638, 4.908)
Knowledge of additional food with breastfeeding from birth to 6 months		
No additional food	1	1
Other response	0.134*** (0.077, 0.233)	0.068*** (0.028, 0.168)
Attitude towards exclusive breastfeeding		
Poor	0.429 (0.178, 1.037)	0.469 (0.077, 2.847)
Neutral	0.886 (0.548, 1.435)	1.04 (0.484, 2.237)
Good	1	1
Total frequency of BF practice within a day		
Less than 8 times	0.008*** (0.002, 0.029)	0.004*** (0.001, 0.02)
8 to 12 times	0.443* (0.207, 0.949)	0.386* (0.155, 0.961)
More than 12 times	1	1

Note: * $P<0.05$, ** $P<0.01$, *** $P<0.001$

6. DISCUSSION

The dominance of breast-milk over any other nourishment to infant and young children is clearly recognized, and over the years it has become more and more evident that it is the most ideal, safe and complete food that a mother can provide for her child. Breastfeeding will have the intended outcome if it is initiated timely, exclusively given for the first six months ,pre-lacteal feed discouraged and colostrum provided to the neonate and continue on demand feeding up to two years.

Nutrition is a crucial, universally recognized component of the child right to the enjoyment of the highest attainable standard of health as stated in the convention on the rights of the child.

Children have the right to adequate nutrition and access to safe and nutritious food, and both are essential for fulfilling their right to the highest attainable standard of health(1).

This study showed that out of those who practiced EBF based on 24hours recall the ever breastfeeding rate was 99.7%. In a descriptive cross sectional survey on the relationship between breastfeeding practice and nutritional status of children aged 0-24 months in Nairobi, Kenya(2010) (12), showed that maternal breastfeeding practice in almost all mother (99%). In a descriptive mixed method study on knowledge, attitude and practice related to infant feeding among women in rural Papua New Guinea (2012)(14), 98% of mothers were breastfeeding their babies. A cross-sectional descriptive study conducted on knowledge and practice of exclusive breastfeeding among mothers in Gbarantoru community, Bayelsa state, Nigeria (17), all (100%) ever breastfed their babies in the first six months of life. Breastfeeding is also a universally accepted behavior in the Ethiopian culture in general. A descriptive cross-sectional community based study conducted on breastfeeding practices of mothers with children below the age of five years in Bahir Dar City, Ethiopia (2014) (21), showed that breastfeeding practice were 96.4%. Another study conducted on prevalence of EBF and its predictors among infants in Jimma Town (2013)(19) the ever breastfeeding practice was 96.6%. Similarly, this study also revealed that almost all of the mothers (99.7%) interviewed have reported breastfeeding practice. This high rate of breastfeeding could be due to the fact that breastfeeding is a norm in the society.

Early initiation of breastfeeding and exclusive breastfeeding has been identified as one of the intervention to save new born lives, and reduce neonatal and infant morbidity and mortality rate. This study showed that out of those who practiced EBF based on 24 hours recall 73.5% of mothers initiated breastfeeding within one hour of birth. A study conducted in Al Hassa, Saudi Arabia (2011) (11), Bahir Dar city (2014) (21), Nairobi Kenya 2010 (12) 77.8%, 69.5% and 61.1% respectively. But study conducted in Arba Minch Zuria (18) and Abha Female Educational District, South Western Saudi Arabia (15) timely initiation breastfeeding within one of birth was low 57.2% and 31% respectively. The better prevalence of timely initiation of breastfeeding in this study could be possibly be explained in terms of higher proportion of mothers attended ANC service and in addition majority of study participants delivered their current child in the health facility, this could be the important service delivery point to establish timely initiation of breastfeeding.

In this study showed that the prevalence of EBF for infants less than six months was 74.3%. This is better when compared with the finding of prevalence of EBF of a study conducted in Mecha District, Amhara region (2014) 47.2% (20), in Arba Minch Zuria (2013) 55.6% (18) and in Bahir Dar city (2013) 49.1% (22) and in Klang, Malaysia (2006) 32.8% (23). A study conducted in rural Papua New Guinea (2013) (14), Nigeria (2013) (17) and Abha Female Educational District, Saudi Arabia (2012) (15) EBF prevalence was low 17%, 28.9% and 8.3% respectively. EBF prevalence of this study was higher when compared to the national (EDHS 2011) EBF prevalence (52%) (5). The reason of better EBF prevalence of this study might be the result of the current policy implementation on the use of health extension worker in urban area for promotion of breastfeeding and also using mass media for promotion of optimal breastfeeding.

A cross-sectional study was conducted to assess knowledge, attitude and technique of breastfeeding among Nigerian mothers from semi urban community (2013) (16) based on cumulative breastfeeding knowledge and attitude score 71.3 percent of the respondents have good knowledge while 54.0 percent has positive attitude towards breastfeeding; and 54% had positive attitude. Breastfeeding was mostly believed to promote mother – baby bonding. An institutional based qualitative and quantitative cross sectional study on prevalence of exclusive breastfeeding and its predictors in Jimma Town, Ethiopia (19), showed that most of study participants had positive attitudes towards exclusive breastfeeding practice. In the current study, 46.9% of the mothers have reported to have good attitude towards breastfeeding. Close to one third of the mothers (31.5%) believed that breastfeeding bonds the mother and the baby. In a descriptive mixed method study on knowledge, attitude and practice related to infant feeding among women in rural Papua New Guinea (14), almost all fathers (99%) supported

breastfeeding. In the current study, 89.6% of the mothers reported that their husbands/partners supported their breastfeeding.

WHO recommends that mothers initiate breastfeeding within one hour of birth, provision of mother's breast-milk to infants within one hour of birth ensures that the infant receives the colostrum which is rich in protective factors. And Global strategy on infant and child feeding recommends feeding colostrum and discourages pre-lacteal feeds. In this study ninety six point five percent of mothers gave colostrum to their baby. A descriptive cross-sectional community based study conducted on breastfeeding practices of mothers of under five years old children in Bahir Dar City, Ethiopia, (2012) (21) 33.5% of mothers reported feeding colostrum to their infants. Another study conducted in rural community Arba Minch Zuria in 2012 89% of mothers considered provision of colostrum as a vaccine given to infants to prevent diseases.

In a community based cross sectional study done on the determinants of exclusive breast feeding in urban slums of Gwalior, India (13), 7.8% practiced exclusive breastfeeding (EBF). Pre and post lacteal feeds were given for 63.8% and 76.0% newborns, with 26.8% discarding colostrum. In a descriptive mixed method study on knowledge, attitude and practice related to infant feeding among women in rural Papua New Guinea (14), only 2/3 had given colostrum to their babies. In a descriptive cross-sectional community based study conducted on breastfeeding practices of mothers of under five years old children in Bahir Dar City, Ethiopia (21), 33.5% of mothers reported feeding colostrum to their infants. In the current study, 95% of the mothers reported that they fed colostrum to their babies which is due to urban residency which allows mothers to have better information which will result in practicing this.

In a descriptive mixed method study on knowledge, attitude and practice related to infant feeding among women in rural Papua New Guinea (14), majority of mothers (91%) breastfed their babies when they cried, which amounted to 7-8 times per day. Eighty three (83) percent of mothers supported their babies under six months with additional food. In the current study, 74.3% mothers revealed that they practiced on-demand feeding and 55.9% mothers stated that they fed their babies when they cried. Sixty percent of the mothers breastfed their babies from 8 to 12 times per day.

In the current study, age of the mother being greater than 29 years compared to those less than 25 years old (AOR=0.317, 95% CI (0.109, 0.918)), age of the last child being 120 to 179 days compared to those from 0 to 59 days old (AOR=0.317, 95% CI (0.112, 0.901)), other

respondents in the knowledge of additional food to be given to the baby with breastfeeding from birth to 6 months compare with those mothers that responded no additional food (AOR=0.068, 95% CI (0.028, 0.168)), and total frequency of breastfeeding within a day being less than 8 times (AOR=0.004, 95% CI (0.001, 0.02)) and 8 to 12 times (AOR=0.386, 95% CI (0.155, 0.961)) Compared to those mothers with more than 12 times breastfeeding practice were identified to be significantly associated ($P < 0.05$) with exclusive breast feeding.

6.1 Limitation of the study

- The respondents were selected from government health facilities only, further study is needed to include private health facilities.
- A mother may have difficulty to remember the time of breastfeeding initiation for her baby; as a result timely initiation of breastfeeding might be subjected to potential recall bias.
- Using a 24 hours recall period which measures the current status of EBF might slightly overestimate the proportion of exclusive breastfed infants; since some of the infants who were given other liquids irregularly may not have received them in the 24 hours before the survey.
- In this study mothers below 18 years were excluded this may overestimate exclusive prevalence of the study area.

7.CONCLUSION AND RECOMMENDATION

7.1 Conclusion

In summary, this study has identified that exclusive breast feeding prevalence based on 24 hours recall was 74.3% and majority of them were also found to be knowledgeable about breastfeeding by stating the advantages of breastfeeding to the baby and the mother, stating time of breastfeeding, frequency of breastfeeding, duration of breastfeeding only, no addition of foods to breastfeeding till 6 months. And almost half of them have good attitude towards breast feeding and husband/partners and family supporting their breast feeding practices. Finally, ages of the mother, knowledge of breastfeeding starting time after child birth, knowledge of additional food with breastfeeding from birth to 6 months, and frequency of breastfeeding within a day were recognized to be predictors of exclusive breast feeding. The findings of the study have shown that there is a good practice of exclusive breastfeeding.

However, there are some gaps of knowledge and attitudes that have arisen from this and other factors in the environment that are detrimental in the practice of breast feeding. These are the specific knowledge of breastfeeding and its exclusiveness till 6 months and continuing with complementary feeding after that but continuing with breast feeding till 24 months. The attitude factors are related with effect of breast feeding cosmetics/shape of the mother, organizational maternity leave allowed for breast feeding and household economical capacity for breastfeeding. Both these knowledge and attitude factors are observed to have their effect on the practice of exclusive breast feeding.

7.2 Recommendation

- Strengthening and promoting ANC and PNC visits with adequate counseling and discussion about breastfeeding issues focusing EBF for the first six months, on the adequateness and balanced nature of breast-milk for infants.
- Health information dissemination to bring behavioral change about EBF practice using accessible means such as mass media and public meeting places.
- Promotion of exclusive breastfeeding through creating an enabling ,breastfeeding friendly working environment for working mothers
- Advocacy efforts targeting the extension of maternity leave up to the first six months after delivery should be practiced to prevent sub optimal exclusive breastfeeding and associated health problems among children.
- Strengthening the capacity of health professionals to regularly counsel clients on the importance of exclusive breastfeeding.
- Further study is proposed to ascertain effective intervention in the study area and in the region at large.

REFERENCES

1. WHO: Global strategy for infant and young child feeding. Geneva: Switzerland; 2003.
2. UNICEF, breast feeding nutrition, available online at: http://www.unicef.org/Nutrition/index_24824.html updated 4 August 2014
3. Alemayehu T, Haidar J, Habte D (2009) determinants of exclusive breast feeding practice in Ethiopia. Journal of Ethiop Health Dev 23 (1): 13-18
4. Scientific rationale: Benefits of breast feeding .2012 available online at: http://www.unicef.org/nutrition/files/scientific_rationale_for_benefits_of_breastfeeding.pdf
5. Central Statistical Authority and ORC Macro.2012.Ethiopia Demographic and Health Survey 2011.Addis Ababa, Ethiopia and Calverton Maryland availableonline at:www.unicef.org/ethiopia/ET_2011_EDHS.pdf
6. Federal Ministry of Health, program implementation manual of National Nutrition Program (NNP), Addis Ababa: Ethiopia; 2008.
7. WHO, infant and child feeding. available online at: <http://www.who.int/mediacentere/factsheets/fs342/en/> updated February 2014
8. UNICEF improving child Nutrition the achievable imperative for global progress. available on line http://www.unicef.org/gambia/improving_child_nutrition_the_achivable_imperative_for_global_progress.pdf
9. Central Statistical Agency [Ethiopia], Ethiopia Mini Demographic and Health Survey, 2014, Addis Ababa, Ethiopia.
10. WHO. Infant and young child feeding model chapter for text books for medical students and allied health professionals. Available online at: http://www.who.int/nutrition/publications/infantfeeding//9789241597494_eng.pdf
11. Tarek Amin,Hatem Hablas, and Ahmed AlAbd Al Qader. Breast feeding Medicine.April2011, 6(59-68).
12. Muchina EN. And Waithaka PM. Relationship between breast feeding practice and nutritional status of children aged 0-24 months in Nairobi , Kenya : African Journal of Food, Agriculture, Nutrition and Development .2010; 10(4)
13. Tiwari, R. Mahajan, P.C. Lahariya, C. The determinants of exclusive breast feeding in urban slums: a community based study, J Trop Pediatr. 2009; 55 (1) : 49-54
14. Kuzma: KAP related to infant feeding among women in rural Papua New Guinea: a descriptive mixed study .International Breastfeeding Journal 2013 8:available online <http://www.internationalbreastfeedingjournal.com/Content/8/1/16>

15. Al- Binali: Breastfeeding knowledge, attitude and practice among school teachers in Abha female educational district, south western Saudi Arabia. International Breastfeeding Journal 2012 7:10. Available online <http://www.biomedcentral.com/content/pdf/1746-4358-7-10.pdf>
16. Mbada et al. knowledge, attitude and techniques of breastfeeding among Nigerian mothers from a semi-urban community. BMC Research Notes 2013 6:552. Available online <http://www.ncbi.nlm.nih.gov/pmc/articles/pmc3878086>
17. Oliemen Peterside, Onyaye E Kunle-olowu, chikao Duru: Knowledge and practice of exclusive breastfeeding among mothers in Gbarantoru community, Bayelsa state, Nigeria. IOSR Journal of Dental and medical sciences (IOSR-JDM) e-ISSN:2279-0853,p-ISSN: 2279-0861.volume12,issue6(Nov-Dec.2013),pp34-40 (www.iosrjournals.org)
18. Dessalegh Tamiru, Shikur Mohammed, Maternal Knowledge of Optimal breastfeeding practices and associated factors in rural communities of Arba Minch Zuria , International Journal of Nutrition and Food sciences . Vol. 2,no.3,2013,pp.122-129
19. Seifu W, Assefa G, and Egeta G(2014) Prevalence of exclusive breastfeeding and its predictors among infants aged six months in Jimma Town, South West Ethiopia,2013. J Pediatr Neonatal Care 1 (3):00017.
20. Tesfa Getanew Welde, Addisu Workneh Kassa , Melkie Edris .Assessment of Exclusive Breastfeeding Practice and Associated Factors in Mecha District, North West Ethiopia. Science Journal of Public Health. Vol.2, no4, 2014, pp.330-336.
21. Yalaw WA, Abitew DB, Breastfeeding practices of mothers of under five years old children in Bahir Dar City, Ethiopia: A descriptive cross-sectional community based study. Int J med sci Public Health 2014; 2:532-536
22. Abay sefene, Dereje Birhanu, Worku Aweke, Tesfaye Taye. Determinants of exclusive breastfeeding practice among mothers of children age less than 6 months in Bahir Dar City Administration , North west Ethiopia ; A community Based cross-sectional survey. Science Journal of Clinical Medicine 2013;2(6):153-159. Available from (<http://www.sciencepublishinggroup.com/j/sjcm>). Accessed on December 22/2014
23. Tan KL, knowledge, attitude and practice of breastfeeding in Klang, Malaysia. Available on line at: journals.iium.edu.my/imjm/index.php/eimj/article/view/58/56
24. WHO (2002) Nutrient adequacy of exclusive breastfeeding for term infants during the first six months of life. Geneva .available online <http://www.whqlibodoc.who.int/publications/9241562110.pdf>

25. Federal Ministry of Health .2005. National strategy for child survival in Ethiopia. Addis Ababa, Ethiopia, Family health department publication.
26. Federal Ministry of Health .2004 National strategy for infant and young child feeding, Addis Ababa, Ethiopia.
27. WHO, Learning from large scale community based program to improve breastfeeding practice.2008
28. WHO, UNICEF, AED mortality and burden of disease attributable to selected major risks .2009. Available online at:www.who.int/nutrition/publications/infantfeeding/9789241597371/en
29. UNICEF, tracking progress on child and maternal Nutrition .A survival and development priority, 2009. Available online at: www.who.int/pmnch/topics/maternal/unicef_9789280644821/en
30. WHO,2008 indicators for assessing infant and young child feeding practices available on line at http://www.unicef.org/nutrition/files/IYCF_indicators_part_III_country_profile
31. Federal Democratic Republic of Ethiopia Ministry of Health, Health Sector Development Program(HSDP IV), 2010. Available on line at: phe-ethiopia.org/admin/uploads/attachment-721-HSDP%20IV%20FinalDraft%2011october%202010.pdf
32. Jone G, Steketee RW, Black RE Bhutta ZA Morris SS: how many child deaths can we prevent this year :(Lancet 2003,262:65-71)
33. Tesfaye S. breastfeeding initiation, exclusive breastfeeding and associated factors among mothers in Goba woreda, Bale zone, Southeast Ethiopia, MPH thesis,2010 Jimma, Ethiopia

ANNEX I: ENGLISH VERSION INFORMED CONSENT AND QUESTIONNAIRE

Informed consent

Read to respondent:

My name is _____. I am a data collector in a research on assessment of knowledge, attitude and practice of exclusive breastfeeding among mothers attending public health facilities in Addis Ababa, Ethiopia.

The purpose of this research is to assess knowledge, attitude and identify those factors that are associated with exclusive breastfeeding practices among mothers. We invite you to participate in this interview because this study targets mothers 18 or more years old with a child less than 6 months old, and we believe you could be able to provide us useful information needed for this study. The interview will take about 20 minutes only.

You will not be interviewed in front of other people but in separate secured place/room. Your name and full address information will not be collected. We will only use codes to identify different study participants. We assure you that the information you are going to provide us will only be used for the purpose of this research and will not be made available to anyone outside of the research team.

We also assure that the interview process will not bring any harm to you or your family. It is also your right to withdraw any time from the process when you feel uncomfortable. You can also pass questions if you don't want to respond to them; or you can stop the entire interview. Outside of the above mentioned the study result benefit; there is no planned incentive for this research. We greatly appreciate you for giving us this opportunity of briefing you about the study.

Do you have any questions?

If you have any additional concerns or questions about this research, please contact the primary investigator: Hiwot Hailu, mobile number 0911421861 and email address hailuhiwot51@gmail.com.

Are you willing to participate in the study? (Circle their response)

Yes => Continue

No => Stop collecting consent and thank the client.

Name and signature of the interviewer _____

Date of interview _____

Questionnaire

Assessment of knowledge, attitude and practice of exclusive breastfeeding among mothers attending public health facilities in Addis Ababa, Ethiopia

Questionnaire for mothers

Instructions: - Follow the instructions and guides under the questions to fill the questionnaire.

S.No.	Question	Responses	Instructions
I. Identification			
FC	Facility Code	[][]	
DCC	Data collector Code	[][]	
CC	Client Code	[][]	
II. Socio-demographic characteristics			
101	How old are you? (In completed years)	[][]	If below 18 years, stop the interview
102	What is your current marital status?	1. Single 2. Living together 3. Married 4. Separated 5. Divorced 6. Widow	
103	What is your educational level? (Based on last completed grade level)	1. Illiterate 2. Read and write only 3. Elementary (1-8 grades) 4. Secondary (9-10 grades) 5. Preparatory (11-12 grades) 6. College level 7. University level 8. Graduated 99. Other, Specify _____	
104	What is your husband's educational level? (Based on last completed grade level)	1. Illiterate 2. Read and write only 3. Elementary (1-8 grades) 4. Secondary (9-10 grades) 5. Preparatory (11-12 grades) 6. College level 7. University level 8. Graduated 99. Other, Specify _____	
105	What religion do you follow?	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 99. Other, Specify _____	
106	What is your current occupation?	1. Student 2. House wife 3. House maid 4. Daily laborer 5. Merchant 6. Government organization employee 7. Private organization employee 8. Non-governmental organization employee 99. Other, Specify _____	

107	What is your husband's current occupation?	1. Student 2. Daily laborer 3. Merchant 4. Government organization employee 5. Private organization employee 6. Non-governmental organization employee 99. Other, Specify _____	
108	What is the average monthly income of the household?	1. 0-500 birr 2. 501-1000 birr 3. 1001-1500 birr 4. Above 1501 birr 99. other specified	
III. Reproductive health characteristics			
201	How many children did you give birth to?	[]	
202	How many children do you have now?	[]	
203	What is the birth order of your last child?	In number _____	
204	How old is your last child? (in months)	[] months	
205	What is the sex of your last child?	1. Male 2. Female	
206	Did you have ANC care follow-up visits in any health facility while you were pregnant for the last child?	1. Yes 2. No	If No, go to Q209
207	How many ANC follow-up visits did you attend?	[]	
208	Were you counseled/advised about breast feeding in your ANC follow-up visits?	1. Yes 2. No	
209	Where did you give birth to your last child?	1. Home 2. Government health center 3. Government hospital 4. Private health facility 99. Other, specify _____	
210	Were you counseled/advised about breast feeding during delivery?	1. Yes 2. No	
211	Following your last delivery did you have PNC follow-up visit?	1. Yes 2. No	If No, go to Q214
212	How many PNC follow-up visits did you have?	[]	
213	Were you counseled/advised about breast feeding in your PNC follow-up visits?	1. Yes 2. No	
214	Did you visit the vaccination room/Under 5yrs old children OPD for your last child before?	1. Yes 2. No	If No, go to Q301
215	Were you advised about breast feeding in the vaccination room/Under 5yrs old children OPD?	1. Yes 2. No	
IV. Knowledge about exclusive breastfeeding (interviewer please don't read the options on the columns to the right)			
301	What is the advantage/use of breastfeeding to your child?	1. Best diet for newborn 2. Prevents disease 3. Bonds mother and child 4. Grows best 99. Other, specify _____	

302	What is the advantage/use of breastfeeding your child for you?	<ol style="list-style-type: none"> 1. Allows quick recovery of the uterus after child birth 2. Prevents pregnancy 3. Prevents disease 4. Saves money 5. Bonds mother and child 6. No use 99. Other, specify _____ 	
303	How soon after child birth should breastfeeding be started?	<ol style="list-style-type: none"> 1. Within one hour of delivery 2. Within 6 hours of delivery 3. After 6 hours but within 24 hours of delivery 4. After 24 hours but within 48 hours of delivery 99. Other, specify _____ 	
304	How frequent should a child be breastfeed?	<ol style="list-style-type: none"> 1. Whenever the child wants 2. Whenever the mother wants 3. On schedule 99. Other, specify _____ 	
305	Should a child be breastfeed when she/he is sick?	<ol style="list-style-type: none"> 1. Yes 2. No 	
306	How long should child be only breastfeed? (in months)	[] months	
307	What other additional foods or drinks should a child be fed from birth up to six months in addition to breast milk?	<ol style="list-style-type: none"> 1. Nothing 2. Plain water 3. Water-sugar/salt solutions 4. Cow's milk 5. Formula milk 6. Butter 99. Other, specify _____ 	
308	What other things are allowed while breastfeeding only?	<ol style="list-style-type: none"> 1. Vitamins preparation 2. Mineral preparation 3. Medicine preparations 99. Others, specify _____ 	
309	When should a child be supplemented with additional complementary foods? After _____ months	[] months	
310	How long in total should a child be breastfeed? In months	[] months	
V. Attitude towards exclusive breast feedings (please indicate your feeling towards the statements indicated below)			
401	Breastfeeding is good for my baby because breast milk is the best food for the child.	<ol style="list-style-type: none"> 1. Agree 2. Neutral 3. Don't agree 4. Don't know 	
402	Breastfeeding is not good because cosmetically affects the mother's shape.	<ol style="list-style-type: none"> 1. Agree 2. Neutral 3. Don't agree 4. Don't know 	
403	Maternity leave of three months is enough to successful breastfeeding.	<ol style="list-style-type: none"> 1. Agree 2. Neutral 3. Don't agree 4. Don't know 	
404	The household economic capacity determines the mother breastfeeding practice.	<ol style="list-style-type: none"> 1. Agree 2. Neutral 3. Don't agree 4. Don't know 	

405	Breast feeding has an advantage to the mother because it prevents pregnancy.	1. Agree 2. Neutral 3. Don't agree 4. Don't know	
406	Breast feeding the baby helps the child to grow well.	1. Agree 2. Neutral 3. Don't agree 4. Don't know	
407	Does the father support you to breastfeed your child?	1. Yes 2. No	
408	Do other family members support you to breastfeed your child?	1. Yes 2. No	
VI. Practice of exclusive breastfeeding			
501	Have you ever breastfed your last child?	1. Yes 2. No	If No, go to Q520
502	If yes how soon after birth did you start breastfeeding your last child?	1. Within one hour of delivery 2. Within six hours of delivery 3. After six hours of delivery but within 24 hours 4. After 24 hours of delivery but within 48 hours 99. Other, specify _____	
503	Did you feed your last child the first milk (colostrum)?	1. Yes 2. No	
504	Did you give your last child other additional foods or drinks after the first milk?	1. Yes 2. No	If No, go to Q506
505	If yes what other additional foods or drinks did you give your last child after the first milk?	1. Plain water 2. Water sugar/salt solution 3. Cow's milk 4. Formula milk 5. Butter 99. Other, specify _____	
506	Do you only breastfeed your last child for the past 24 hours? It should be explained by the local time	1. Yes 2. No	If yes ,go to Q508
507	If no what additional food or drinks did you give your last child for the past 24 hours?	1. Plain water 2. Water sugar/salt solution 3. Cow's milk 4. Formula milk 5. Butter 99. other ,specify	
508	How frequent did you breastfeed your last child yesterday during the day? (from yesterday's sunrise to yesterday's sunset?)	1. [] times 2. Don't know	
509	How frequent did you breastfeed your last child yesterday during the night? (from yesterday's sunset to today's sunrise?)	1. [] times 2. Don't know	
510	When do you breastfeed your last child?	1. When s/he needs 2. When s/he cries 3. When s/he is sick 4. On your schedule 5. When your breast is engorged 99. Other, specify _____	
511	Did you satisfy your last child by breastfeeding?	1. Yes 2. No	
512	Did you usually interrupt your last child from breastfeeding?	1. Yes 2. No	

513	Did you ever feed your last child any other additional foods or drinks in addition to breast milk?	1. Yes 2. No	If no go to Q516
514	If yes when you fed your last child any other additional foods or drinks in addition to breast milk	[] months	
515	What other additional foods or drinks did you feed your last child in addition to breast milk?	1. Plain water 2. Water sugar/salt solution 3. Cow's milk 4. Formula milk 5. Butter 99. Other, specify _____	
516	How many months did you only breastfeed your child without adding any other foods or drinks starting from birth?	[] months	
517	Did you ever stop breastfeeding your last child?	1. Yes 2. No	If no go to Q519
518	If yes when you stop breastfeeding your last child	[] months	
519	What was the reason that you stopped breastfeeding your child?	1. No breast milk 2. Breast sickness 3. The mother was sick (other) 4. The child was sick 5. The mother started work 6. Started other milk products 99. Other, specify _____	
520	What was your reason for never breast feed your last child?	1.No breast milk 2.mother sickness 3.child sickness 4.Breast disease 99.other ,specify _____	

Thank you for your responses and the time you spent.

ANNEX II: AMHARIC VERSION INFORMED CONSENT AND QUESTIONNAIRE

Informed Consent

በአዲስ አበባ አራዳ ክ/ከተማ ለሚኖሩ ከ ስድስት ወር በታች ህፃናት ላላቸው እናቶች የተዘጋጀ መጠይቅ

ስሜ _____ ይባላል። በአዲስ አበባ ዩኒቨርሲቲ የህብረተሰብ ጤና ትምህርት ክፍል እየተካሄደ ላለው ጥናታዊ ዳሰሳ መረጃ ሰብሳቢ ነኝ። ከስድስት ወር በታች ላሉ ህፃናት የእናት ጡት ወተት አሰጣጥ ሁኔታን ለማወቅ ቃለ መጠይቅ እያደረግን ሲሆን፤ አላማውም ትክክለኛ የሆነ የእናት ጡት ወተት አሰጣጥን ለማጠናከር የሚጠቅም መረጃ ለማግኘት ነው። ይህንን ዓላማ ለማሳካት ለተዘጋጁ ጥያቄዎች የሚሰጡን እውነተኛና በጣም ጠቃሚ ስለሆኑት መልስዎት በቅድሚያ ልናመሰግንዎት እንወዳለን። ይህንን መረጃ ለመስጠት ከእኔ ጋር 20 ደቂቃ ሊወስድብዎ ይችላል። የሚሰጡንን መረጃ በሙሉ በሚስጥር የሚጠበቅ ሲሆን ስምዎንም መግለፅ አያስፈልግም። የእርስዎም ተሳትፎ በፍላጎት ላይ የተመሰረተ ነው። መመለስ የማይፈልጉትን ጥያቄ እዲመልሱ አይገደዱም።

እንድንቀጥል ፈቃድኛነዎት?

- መልሱ አዎ ከሆነ ወደሚቀጥለ
- አልችልም ከሆነ አመስግነሽ መጠይቁን አቋርጧል።
- የተጠያቂዎን እናት ፍቃደኝነት ለማያረጋገጥ የመረጃው ስብሰቢ ፊርማ

□

መጠይቁ የተካሄደበት ቀን _____ ወር _____ ዓ.ም _____

ጥያቄ ካለዎት አሁን ወይንም ሌላ ጊዜ ሊጠይቁ ይችላሉ። ሌላ ጊዜ ለመጠየቅ ቢፈልጉ ከዚህ በታች የተጠቀሱትን ግለሰብ ማነጋገር ይችላሉ።

የዋናው ተመራማሪው ስም ህይወት ሃይሉ ስልክ ቁጥር 0911 42 18 61

Questionnaire

መጠይቅ

የእናቶችን የእናት ጡት ወተት እውቀት ፣ ፍላጎትና ተግባርን ለመዳሰስ በአዲስ አበባ የመንግስት ጤና ተቋማት አገልግሎት ለማግኘት ለመጡ እናቶች የተዘጋጀ መጠይቅ ትእዛዙን በመከተል መጠይቁን ይሙሱ።

ተ.ቁ	ጥያቄ	መልስ	ትእዛዝ
I. መለያ			
ጤ/ኮድ	የጤና ድርጅት ኮድ	[] [] []	
መ/ሰ/ኮድ	መረጃ ሰብሳቢ ኮድ	[] [] []	
መ/ሰ/ጤ ኮድ	መረጃ ሰጪ ኮድ	[] [] []	
II. የማህበራዊእናኢኮኖሚያዊሁኔታ			
101	እድሜዎ ስንት ነው?	[] [] []	ከ 18 አመት በታች ከሆኑ መጠይቁን ያቋርጡ።
102	የጋብቻ ሁኔታ እንዴት ነው?	1.ያላገባች 2.አብሮ የሚኖር 3.ያገባች 4.የተለያዩ 5.የተፋታች 6.ባሏ የሞተባት	
103	የትምህርት ደረጃዎ ምን ያህል ነው?	1.ያልተማረ 2.ማንበብና መጻፍ ብቻ 3.የመጀመሪያ ደረጃ (ከ1-8ኛ ክፍል) 4.ሁለተኛ ደረጃ (ከ 9-10ኛ ክፍል) 5.መሰናዶ (ከ11-12ኛ ክፍል) 6.የኮሌጅ ተማሪ 7.የዩኒቨርሲቲ ተማሪ 8.ምሩቅ 99. ሌላ ካለ ይግለፁ። _____	
104	የባለቤትዎ የትምህርት ደረጃ ምን ያህል ነው?	1.ያልተማረ 2.ማንበብና መጻፍ ብቻ 3.የመጀመሪያ ደረጃ (ከ1-8ኛ ክፍል) 4.ሁለተኛ ደረጃ (ከ 9-10ኛ ክፍል) 5.መሰናዶ (ከ11-12ኛ ክፍል) 6.የኮሌጅ ተማሪ 7.የዩኒቨርሲቲ ተማሪ 8.ምሩቅ 99. ሌላ ካለ ይግለፁ። _____	
105	ሀይማኖትዎ ምንድን ነው?	5. ኦርቶዶክስ 6. ሙስሊም 7. ፕሮቴስታንት 8. ካቶሊክ 99. ሌላ ካለ ይግለፁ። _____	
106	ስራዎ ምንድን ነው?	1.ተማሪ 2.የቤት እመቤት 3.የቤት ሰራተኛ 4.የቀን ሰራተኛ 5.ነጋዴ 6.የመንግስት ሰራተኛ	

		7.የግል ድርጅት ሰራተኛ 8.መንግስታዊ ያልሆነ ድርጅት ሰራተኛ 99.ሌላ ካለ ይግለፁ _____	
107	የባለቤትም ስራ ምንድን ነው?	1.ተማሪ 2.የቀን ሰራተኛ 3.ነጋዴ 4.የመንግስት ሰራተኛ 5.የግል ድርጅት ሰራተኛ 6.መንግስታዊ ያልሆነ ድርጅት ሰራተኛ 99. ሌላ ካለ ይግለፁ _____	
108	አማካይ የቤተሰብም ወርሀዊ ገቢ ስንት ነው?	1.0-500 ብር 2.501-1000 ብር 3.1001-1500 ብር 4.ከ1501ብር በላይ 99.ሌላ ካለ ይግለፁ _____	
III. የእናተየውስነ-ተዋልዶጤናሁኔታ			
201	ስንት ልጆች ወልደዋል በህይወት ባይኖርም?	<input type="checkbox"/>	
202	ስንት ለጆች አልዎት በህይወት ያሉ?	<input type="checkbox"/>	
203	ህፃኑ ስንተኛ ልጅዎት ነው?	<input type="checkbox"/>	
204	የህፃኑ እድሜ ስንት ነው? (በወር)	<input type="checkbox"/> ወር	
205	ያታውስ?	1.ወንድ 2.ሴት	
206	በእርግዝና ወቅት የቅድም ወሊድ ክትትል አድርገው ነበር?	1.አዎ 2. አይ	መልሱ አይ ከሆነ ወደ ጥ.ቁ209
207	ስንት ጊዜ ክትትል አድርገዋል?	<input type="checkbox"/>	
208	በእርግዝና ክትትል ወቅት ስለ ጡት ማጥባት ምክር ተሰጥዎት ነበር?	1.አዎ 2አይ	
209	ህፃኑ የተወለደው የት ነው?	1.እቤት 2.የመንግስት ጤና ጣቢያ 3.የመንግስት ሆስፒታል 4.የግል ጤና ድርጅት 99. ሌላ ካለ ይግለፁ _____	
210	የወሊድ አገልግሎት በሚያገኙበት ወቅት ስለ ጡት ማጥባት ምክር ተሰጥዎት ነበር ?	1.አዎ 2. አይ	
211	ከወሊድ በኋላ የድህረ ወሊድ ክትትል አድርገው ነበር?	1.አዎ 2አይ	መልሱ አይ ከሆነ ወደ ጥ.ቁ 214
212	የድህረ ወሊድ ክትትል ስንት ጊዜ አድርገዋል?	<input type="checkbox"/>	
213	በድህረ ወሊድ ክትትል ወቅት ስለ ጡት ማጥባት ምክር ተሰጥዎት ነበር ?	1.አዎ 2. አይ	
214	ከዚህ በፊት የክትባት አገልግሎት/ ከ 5 አመት በታች የሆኑ ህፃናት ክትትል የሚያደርጉበት ክፍል መተው ያውቃሉ?	1.አዎ 2.አይ	መልሱ አይ ከሆነ ወደ ጥ.ቁ 301
215	የክትባት አገልግሎት/ ከ 5 ዓ መት በታች የሆኑ ህፃናት ክትትል የሚያደርጉበት ክፍል በመጡ ጊዜ ስለ ጡት ማጥባት	1.አዎ 2. አይ	

	ምክር ተሰጥዎት ነበር ?		
IV. የእናት-ጡት-ወተት-የመስጠት-እውቀት-(እባክዎንምርጫዎቹንለእናት-የውኢያንብቡ)			
301	ለልጅዎ የጡት ወተት ጥቅም ምንድን ነው?(ከአንድ በላይ መልስ ስለሚኖር ሌላ ካለ በማለት ጎትጉት)	1.ለህፃናት ጥሩ ምግብ ነው 2.ከሸታ ይከላከላል 3.የእናትና የልጅ ፍቅር ያዳብራል 4.ለህጻኑ እድገት ይጠቅማል 99.ሌላ ካለ ይግለፁ _____	
302	ልጅዎን ጡት ማጥባት ለእርስዎ ጥቅም ምንድን ነው? (ከአንድ በላይ መልስ ስለሚኖር ሌላ ካለ በማለት ጎትጉት)	1.ከወሊድ በኋላ ማህፀን ወደ ቦታው እንዲመለስ ይረዳል 2.እርግዝናን ይከላከላል 3.ከሸታ ይከላከላል 4.ወጪ ይቀንሳል 5.የእናትና የልጅ ፍቅር ያዳብራል 6.ጥቅም የለውም 99.ሌላ ካለ ይግለፁ _____	
303	የእናት ጡት ወተት ልጅ ከወለዱ በኋላ መቼ መጀመር አለበት?	1.በተወለደ በ1 ሰዓት ውስጥ 2.በተወለደ በ6 ሰዓት ውስጥ 3.ከተወለደ ከ6እስከ 24 ሰዓት 4. ከተወለደ ከ24እስከ 48 ሰዓት 99.ሌላ ካለ ይግለፁ _____	
304	ህፃኑ በየስንት ሰአት ጡት መጥባት አለበት ? (ከአንድ በላይ መልስ ስለሚኖር ሌላ ካለ በማለት ጎትጉት)	1.ህፃኑ ሲፈልግ 2.እናትየው ስትፈልግ 3.በተመደበለት ሰአት 99.ሌላ ካለ ይግለፁ _____	
305	ህፃኑ በታመመ ጊዜ የእናት ጡት ወተት ይሰጠዋል?	1.አዎ 2. አይ	
306	ህፃኑ የእናት ጡት ወተት ብቻ ለምን ያክል ጊዜ መስጠት ይገባል?	[] ወራት	
307	ከእናት ጡት ወተት በተጨማሪ ህፃኑ ከተወለደ እስከ 6 ወር ድረስ ምን መስጠት ይገባል?(ከአንድ በላይ መልስ ስለሚኖር ሌላ ካለ በማለት ጎትጉት)	1.ምንም 2.ውሃ 3.የውሃና ስኳር/ጨው ውህድ 4.የከብት ወተት 5.የዱቄት ወተት 6.ቅቤ 99.ሌላ ካለ ይግለፁ _____	
308	ከእናት ጡት ወተት በተጨማሪ ሌሎች እንዲሰጡ የተፈቀዱ ምንድን ናቸው?(ከአንድ በላይ መልስ ስለሚኖር ሌላ ካለ በማለት ጎትጉት)	1.ከቫይታሚን የተዘጋጁ ፈሳሾች 2.ከማእድን የተዘጋጁ ፈሳሾች 3.መድሃኒት 99.ሌላ ካለ ይግለፁ _____	
309	አንድ ህፃን ተጨማሪ ምግብ የሚጀመረው በስንተኛ ወር ነው?	[]ወራት	
310	በአጠቃላይ አንድ ህፃን የእናት ጡት ወተት ለምን ያክል ጊዜ መውሰድ/መመገብ አለበት ?	[]ወራት	
V. የእናት-ጡት-ወተት-የመስጠት-ፍላጎት-(እባክዎከዚህበታችላሉ ጥያቄዎች ያሉትን ሀሳብ ይግለፁ)			
401	ጡት ማጥባት ለልጅ ጥሩ ነው ምክንያቱም የጡት ወተት ለልጆች ምርጥ ምግብ ስለሆነ	1.እስማማለሁ 2.ገለልተኛ 3.አልስማማም 5.አላውቅም	
402	ጡት ማጥባት የእናትን ቅርፅ ያበላሻል/ይጎዳል፤ ስለዚህ ጥሩ አይደለም	1.እስማማለሁ 2.ገለልተኛ 3.አልስማማም 4.አላውቅም	

403	የ 3 ወር የወሊድ እረፍት ለተሳካ ጡት ማጥባት በቂ ነው	1.እስማማለሁ 2.ገለልተኛ 3.አልስማማም 4.አላውቅም	
404	የቤተሰብ ገቢ የጡት ማጥባት ልምድ ላይ ተዕኔኖ አለው	1.እስማማለሁ 2.ገለልተኛ 3.አልስማማም 4.አላውቅም	
405	ጡት ማጥባት ለእናትዬው ጥቅም አለው ምክንያቱም እርግዝናን ይከላከላል	1.እስማማለሁ 2.ገለልተኛ 3.አልስማማም 4.አላውቅም	
406	ጡት ማጥባት ለህፃኑ እድገት ከፍተኛ አስተዋፅኦ አለው	1.እስማማለሁ 2.ገለልተኛ 3.አልስማማም 4.አላውቅም	
407	የልጁ አባት ጡት እንዲያጠቡ ይረዳዎታል?	1.አዎ 2.አይ	
408	ሌሎች የቤተሰቡ አባላት ጡት እንዲያጠቡ እርዳታ ያደርጉሎታል?	1.አዎ 2. አይ	
VI. የእናት ጡት ወተት የመስጠት ልምድ			
501	ልጅዎትን ጡት አጥብተውት ያውቃሉ?	1.አዎ 2. አይ	መልሱ አይ ከሆነ ወደ ጥ.ቁ 520
502	መልሱ አዎ ከሆነ ህፃኑ እንደተወለደ ጡት መጥባት የጀመረው መቼ ነው?	1.በተወለደ በ1 ሰዓት ውስጥ 2.በተወለደ በ6 ሰዓት ውስጥ 3.ከተወለደ ከ6እስከ 24 ሰዓት 4. ከተወለደ ከ24እስከ 48 ሰዓት 99.ሌላ ካለ ይግለፁ _____	
503	ለህጻኑ ከጡትዎ የወጣውን የመጀመሪያ ፈሳሽ ወተት(እንገር)እንዲጠባ አድርገውታል?	1.አዎ 2. አይ	
504	ህፃኑ እንደተወለደ የመጀመሪያው የጡት ወተት(እንገር) ከጠባ በኋላ ለልጅዎ የሚበላ/የሚጠጣ ሰጥተውታል ?	1.አዎ 2. አይ	መልሱ አይ ከሆነ ወደ, ጥ.ቁ506
505	መልሱ አዎ ከሆነ ምን ተጨማሪ ምግብ ወይም ፈሳሽ ሰጥተውታል?(ከአንድ በላይ መልስ ስለሚኖር ሌላ ካለ በማለት ጎትጉት)	1.ውሃ 2.የውሃና ስኳር/ጨው ውህድ 3.የከብት ወተት 4.የዱቄት ወተት 5.ቅቤ 99.ሌላ ካለ ይግለፁ _____	
506	ባለፉት 24 ሰዓታት ውስጥ ህፃኑን የእናት ጡት ወተት ብቻ ነው የሰጡት?	1.አዎ 2. አይ	መልሱ አዎ ከሆነ ወደ,ጥ.ቁ 508
507	መልሱ አይደለም ከሆነ ባለፉት 24 ሰዓታት ውስጥ ከእናት ጡት ወተት በተጨማሪ ምን ሰጥተውታል?	1.ውሃ 2.የውሃና ስኳር/ጨው ውህድ 3.የከብት ወተት 4.የዱቄት ወተት 5.ቅቤ 99.ሌላ ካለ ይግለፁ _____	
508	ትላትና ቀን ጀምበር ወጥታ እስከ ምትጠልቅ ድረስ ለልጅዎ የጡት ወተት ስንት ጊዜ ሰጥተውታል?	1.[] ጊዜ 2.አላስታውስም	

509	ትላትና ማታ ጀምበር ጠልቃ ጠዋት እስከ ምትወጣ ድረስ ለልጅዎ ጡት ወተት ስንት ጊዜ ሰጥተውታል?	1. [] ጊዜ 2. አላስታውስም	
510	ለልጅዎ የጡት ወተት የሚሰጡት መቼ ነው?(ከአንድ በላይ መልስ ስለሚኖር ሌላ ካለ በማለት ጎትጉት)	1. ሲፈልግ/ስትፈልግ 2. ሲያሰቅስ/ስታሰቅስ 3. ሲያመው/ሲያማት 4. በተመደበለት/ላት ሰዓት 5. ጡትዎ በጣም ሲያማት 99. ሌላ ካለ ይግለፁ	
511	የእርስዎ ጡት ማጥባት ሀሳብን ያጠግብዋል?	1. አዎ 2. አይ	
512	በአብዛኛው ሀሳብን የጡት ወተት ሳይጠግብ ያቋርጡታል?	1. አዎ 2. አይ	
513	ለሀሳብ አሰኪ አሁን ድረስ ከእናት ጡት ወተት በተጨማሪ ሌላ ምግብ/ፈሳሽ ሰጥተውት ያውቃሉ?	1. አዎ 2. አይ	መልሱ አይ ከሆነ ወደ ጥ.ቁ516
514	መልሱ አዎ ከሆነ ከጡት ወተት በተጨማሪ ሌላ ተጨማሪ ምግብ ወይም ፈሳሽ መቼ ሰጥተውት ያውቃሉ?	[]	
515	ከእናት ጡት ወተት በተጨማሪ ለሀሳብ ምን ሰጥተዋል?	1. ውሃ 2. የውሃና ስኳር/ጨው ውህድ 3. የከብት ወተት 4. የዱቄት ወተት 5. ቅቤ 99. ሌላ ካለ ይግለፁ	
516	ልጅዎ ከተወለደ ጊዜ ጀምሮ የእናት ጡት ወተት ብቻ(ምንም አይነት ተጨማሪ ምግብ/ፈሳሽ ሳይቀላቅሉ)ለምን ያክል ጊዜ ሰጥተውታል?	[]	
517	ለልጅዎ የጡት ወተት መስጠትዎን አቁመው ያውቃሉ?	1. አዎ 2. አይ	መልሱ አዎ ከሆነ ወደ ጥ.ቁ518
518	መልሱ አዎ ከሆነ ጡት ማጥባት ያቆሙት መቼ ነው	[]	
519	ጡት ማጥባትዎን ያቆሙበት ምክንያት ምንድን ነው?	1. የጡት ወተት ባለመኖሩ 2. የጡት ህመም 3. በእናትየው ህመም ምክንያት 4. በሀሳብ ህመም ምክንያት 5. በእናትየው ስራ መጀመር 6. ሌሎች የወተት ምረቶችን በመጀመር 99. ሌላ ካለ ይግለፁ	
520	ልጅዎን የጡት ወተት ያላጠበቡት ምክንያት ምንድን ነው?	1. የጡት ወተት ባለመኖሩ 2. በእናትየው ህመም ምክንያት 3. በሀሳብ ህመም ምክንያት 4. የጡት ህመም 99. ሌላ ካለ ይግለፁ	

ይህ የመጠይቁ ማጠቃለያ ነው። ጊዜዎን መስዋዕት አድርገው ላደረጉልኝ ትብብር አመሰግናለሁ።

DECLARATION

I, the under signed, declared that this is my original work, has not been presented for a degree in this or any other university, and that all the resources of material used for this has been fully acknowledged.

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Place _____

Date of submission _____

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

Name _____

Signature _____