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DEPARTMENT OF NURSING AND MIDWIFERY

ASSESSMENT OF EXCLUSIVE BREASTFEEDING PRACTICE AND ASSOCIATED FACTORS AMONG MOTHERS IN MOTTA TOWN, EAST GOJJAM ZONE, AMHARA REGIONAL STATE, ETHIOPIA, 2015.

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ABBREVIATIONS AND ACRONYMS

AAU---Addis Ababa University

ANC--- Antenatal Care

AOR--Adjusted odds ratio

COR--Crude odd ratio

Cl--Confidence Level

CS---Caesarean Section

DNA-PCR---------------------------------------Deoxyribonucliec Acid-Polymerase Chain Reaction

EBF --Exclusive Breast Feeding

EDHS--Ethiopian Demographic Health Survey

HIV--Humman Immunodefiecny Virus

MCH--Maternal and Child Health

MDG--Milleniem Development Goals

PAS--Proportional Allocation to Size

PI---Principal Investigator

PNC--Postnatal Care

SD--Standard Deviation

SIDS---Sudden Infant Death Syndrome

SPSS---Statistical Package for Social Science

SRS --Simple Random Sampling

SSA---Subsaharan Affrica

UNICEF--United Nations Children's Fund

USAID--United States Aid for International Development

USA---United States of America

WCA--West and Central Africa

WHO--World Health Organization

TABLE OF CONTENTS

Contents **Pages**

ACKNOWLEDGEMENTS I

ABBREVIATIONS AND ACRONYMS II

TABLE OF CONTENTS IV

LIST OF TABLES VIII

LIST OF FIGURES IX

ABSTRACT X

1: INTRODUCTION 1

- 1.1 Background information 1
- 1.2 Statement of the problem 3
- 1.3 Significance of the study 5

2: LITERATURE REVIEW 6

- 2.1 Prevalence of Exclusive Breastfeeding practice 6
- 2.2 Factors associated with Exclusive Breastfeeding Practice 8
- 2.3 Conceptual framework 15

3: OBJECTIVES 17

- 3.1 General Objective 17
- 3.2 Specific Objectives 17

4: METHODS AND MATERIALS 18

4.1 Study design and period 18
4.2 Study area 18
4.3 Source population 18
4.4 Study population 18
4.5 Eligibility criteria 18
4.5.1 Inclusion criteria 18
4.5.2 Exclusion criteria 19
4.6 Sample Size and Sampling Procedure 19
4.6.1 Sample Size Determination 19
4.6.2 Sampling Procedure 20
4.6.3 Proportional allocation 20
4.7 Data Collection Procedure 22
4.7.1 Instrument and measurement 22
4.7.2 Data collectors 22
4.8 Data quality assurance 22
4.9 Variables of the study 23
4.9.1 Independent variables 23
4.9.2 Dependent variable 24
4.10 Operational definitions: 25
4.11 Data Processing and Analysis 26
4.12 Ethical considerations 27

4.13 Dissemination and Utilization of results 27

5: RESULTS 28

5.1. socio-demographic characteristics 28

5.2. Infant and maternal health service utilization characteristics 30

5.3 Breastfeeding and related practices 32

5.4. Information and breastfeeding knowledge of mothers 34

5.5. Factors associated with exclusive breastfeeding 36

6. DISCUSSION 40

7. STRENGTH AND LIMITATION 45

8. CONCLUSION AND RECOMMENDATION 46

8.1 conclusion 46

8.2 Recommendations 46

REFERENCES 48

ANNEXES 53

I: Participant Information Sheet 53

II: Informed consent 54

III: Questionnaire, English Version 55

IV: የተሳታፊዎች መረጃ መስጫ ቅጽ-በአማርኛ 65

V: የስምምነት መግለጫ ፎርም - በአማርኛ 66

VI: መጠይቅ - አማርኛ ቅጽ 67

VII: Map of the Study Area 74

VIII: Declaration 75

LIST OF TABLES

Table 1: Socio-demographic characteristics mothers (respondents) who have infants less than six months old, in Motta town, East Gojjam Zone, Ethiopia, 2015. 29

Table 2: Infant and maternal health service utilization characteristics of study participants in Motta town, East Gojjam zone, Ethiopia, 2015. 31

Table 3: Breastfeeding related practices of mothers who have infants less than six months old in Motta town, East Gojjam zone, Ethiopia, 2015. 33

Table 4: Support systems of mothers to fed exclusively the infant among those who have infants less than six months in Motta town, East Gojjam zone, Ethiopia, 2015. 34

Table 5: Factors that affect EBF practice among mothers of infants age less than 6 months using bivariate and multivariate logistic regression analysis model, East Gojjam, Ethiopia, 2015........ 39

LIST OF FIGURES

Figure 1: Conceptual framework 16

Figure 2: Schematic presentation of sampling procedure 21

Figure 3: Percent distribution of mothers' informational status about EBF in those who have infant less than six months old in Motta town, East Gojjam zone, Ethiopia, 2015. 34

Figure 4: Sources of information for mothers about EBF who have infant less than six months old in Motta town, East Gojjam zone, Ethiopia, 2015. 35

Figure 5: Percent distribution of level of Knowledge on breastfeeding of mothers who have infant less than six months old in Motta town, East Gojjam zone, Ethiopia, 2015. 36

ABSTRACT

Background: Exclusive breastfeeding is the best and cost effective intervention to prevent childhood morbidities and mortalities. It prevents 13% of childhood mortality; i.e, at least 1.2 million children worldwide would be saved every year. Globally not more than 35% of infants are exclusively breastfed. In developing countries 38% of infants less than 6 months old are exclusively breastfeed. While in Ethiopia approximately half (52 %) of infants less than six month old are exclusively breastfeed.

Objective: The objective of this study was to assess exclusive breastfeeding practice and associated factors among mothers who have infants less than six months of age in Motta town, East Gojjam, Amhara Regional State, Ethiopia, 2015.

Method: Community based quantitative cross-sectional study was conducted from April 7, 2015 to May 7, 2015. Simple random sampling technique was applied after taking all registered mothers who have infants less than 6 months old from local health extension workers of each kebele. A total of 423 mothers with infant less than six month old were included in this study. The data was collected from all four Kebeles using interviewer admistered questioaire.

Descriptive and inferential statistics were used to present the data. Both bivariate and multivariate logistic regression analyses were used to identify factors associated with exclusive breastfeeding practice.

Result: Prevalence of exclusive breastfeeding was 50.1% [95% CL: 45.22%- 54.98%]. Mothers with young infant (0-1month) [AOR=3.858(1.642, 9.067)], unemployed [AOR=3.008(1.459, 6.2 02)], low income [AOR= 3.605(1.745, 7.451)], got breastfeeding counseling during pregnancy [AOR= 2.764 (1.522, 4.998)], fed colostrum [AOR=3.503(1.451, 8.452)], didn't give prelactal

food [AOR=4.4832(1.823, 11.028)] and supported by husband [AOR=2.686 (1.037, 6.953)] were more likely to practice EBF than their counterparts.

Conclusion and recommendations: Prevalence of exclusive breastfeeding practice in study area was 50.1%. Age of the child, maternal occupation, income, breastfeeding counseling during ANC, husband support of breastfeeding and colostrum feeding were independent predictors of exclusive breastfeeding practice. Recommendations to increase exclusive breastfeeding practice are revising post partum maternity leave, increasing health professional's habit of breast feeding counseling through training, involving husband during counseling, educating mothers and community as a whole to avoid traditional practices that hinder EBFup to six months.

Key words: Exclusive Breastfeeding, Prevalence, Associated Factors, Motta, Ethiopia.

1: INTRODUCTION

1.1 Background information

Breast milk is the one and only natural, complete and complex nutrition for human infants. It is superior to any product given to a baby and it is immediately available, fresh, temperature always correct and constant, economical(1).

It provides all infants nutritional and fluid needs in the first six months and is a perfect combination of proteins, fats, carbohydrate and fluids(2). Nutrients such as vitamins A and C, iron, zinc and vitamin D are more easily absorbed from breast milk than from other milk. And it contains essential fatty acids needed for the infant's growing brain, eyes, and blood vessels and these are not available in other milks (1, 3).

Breast milk contains antibodies that can protect infants from bacterial and viral infections and it helps the child to fight germs and reduces the risk of developing infections(1). Breastfed babies have fewer infections in their early life, less diarrhea and vomiting, chest and ear infections because breast milk help a baby's own immune system work best(2).

Exclusive breastfeeding means babies are given only breast milk and nothing else-no other milk, food, drink, even no water for the first six months of life since it provides best and complete nourishment for the baby during the first six months of life (3-5).

Exclusive breastfeeding is recommended because breast milk is uncontaminated and contains all the nutrients necessary in the first six months of life. In addition, the mother's antibodies in breast milk provide the infant with immunity to disease (6).

Exclusively breastfed children are at a much lower risk of infection from diarrhea, acute respiratory infections, pneumonia, meningitis, ear infections, lower rates of childhood cancers including leukemia and lymphoma than infants who receive other foods(3-5).

Early supplementation is discouraged for several reasons. First, it exposes infants to pathogens and thus increases their risk of infection, especially diarrheal disease. Second, it decreases infant's intake of breast milk and therefore suckling, which in turn reduces breast milk production. Third, in low resource settings, supplementary food is often nutritionally inferior(6).

Breastfeeding provides numerous benefits to infants, women, and society. It creates a special bond between mother and infant, enhances dental development, reduces risk for allergies, aids in cognitive development, and decreases the risk for obesity in later life. It also helps the uterus return to pre-pregnancy size faster; reduces risk of breast, ovarian, and uterine cancers; decreases risk for osteoporosis; enhances emotional health, and saves money(7).

Poor feeding practices – particularly sub-optimal breastfeeding and complementary feeding practices for infants and young children - are the major cause of child malnutrition along with other common illnesses(2). Chronic malnutrition due to poor breast feeding practice causes diminished cognitive and physical development of children and it limits to attain their potential to learn and earn throughout their lives(8).

Inspite of what is known about the benefits of exclusive breast feeding for children, mothers, families and society practice of exclusive breastfeeding is unsatisfactory in many parts of the world. Only 35% of infants worldwide are exclusively breastfed during the first four months of life(9) and 38% of children less than 6 months of age are exclusively breastfed in the developing countries and 31% in SSA (10) while in Ethiopia 52% of children exclusively breastfed for six months(6).

Many factors have found to affect EBF practice such as; Societal beliefs favoring mixed feeding, lack of adequate support in health facilities and in the community, Aggressive promotion of infant formula through medias, inadequate maternity leave legislation, lack of knowledge on the dangers of not EBF among women, their partners, and families(9).

1.2 Statement of the problem

Over two-thirds deaths occurring world wide during the first year of life children are often associated with inappropriate feeding practices, especially due to poor exclusive breastfeeding practices(9).

Suboptimal breastfeeding contributes for 45% of neonatal infectious deaths, 30% of diarrheal deaths and 18% of acute respiratory deaths among under five children in developing countries(11). It also accounts for 10% of the disease burden in children less than 5years old(12).

A total of 96% of all infant deaths (i.e. 1.24 million deaths) occur during the first six months of life are attributable to non exclusivebreast feeding which is much higher in Asia and Africa. It accounts 55% of diarrheal deaths and 53% of acute respiratory deaths in the first six months of life(13).Compared with exclusive breastfeeding in the first few months of life, partial or no breastfeeding is associated with a 2.23-fold higher risk of infant deaths resulting from all causes and 2.40- and 3.94-fold higher risk of deaths attributable to pneumonia and diarrhea, respectively(14).

Non exclusive breastfeeding is known to compromise the nutritional status of children. It results an estimated 40% of under-five stunting in Western and central Africa(WCA) and more than 60% in some other countries (15).

Exclusive breastfeeding from birth to six months has the potential to prevent 13 % of child mortality, and it is estimated that the lives of at least 1.2 million children worldwide would be saved every year(2). However, No more than 35% of infants worldwide are exclusively breastfed during the first four months of life(9). Only 38% of children less than 6 months of age are exclusively breastfed in the developing countries(10) and 21% in WCA (15).

In Ethiopia suboptimal breastfeeding practices are the major contributer to an estimated 70,000 infant deaths per year which is 24% of the total infant death annually which can be significantly prevented by nutrition interventions such as exclusive breastfeeding(16).

In Ethiopia 52 % of children less than six months old are exclusively breastfed(6). And Ethiopian HSDP IV planned to increase in the proportion of exclusively breastfed infants under age 6 months to 70 % by the end of 2015 (17).

Breastfeeding and good nutrition for children are recognized as essential for achieving the Millennium Development Goals (MDG), particularly the goals relating to child survival, such as reducing child mortality by 2/3 between 1990 and 2015 (9, 18).

Therefore the purpose of this study was to assess exclusive breast feeding practices and associated factors among mothers of children less than 6 months old in Motta town, East Gojjam zone, Ethiopia.

1.3 Significance of the study

The magnitude and determinant factors for the practice of EBF were not known in the study area even if breast feeding practice is a vital component of primary health care unit. Hence, there is a need to carry out a research to come up with the magnitude and determinants of exclusive breastfeeding practice in the study area.

Health extension workers who are working at community level, Nurses and midwifes who work in maternity centers (antenatal care unit, post natal care unit and delivery room) and in the community setting as well all other concerned bodies will utilize the result of this research as a reference in their counseling/health education session to minimize the sub-optimal breast feeding practice and strengthen exclusive breast feeding practices for the first six months of life.

The finding of this study will also provide the district health office, regional health bureau, policy makers and NGOs (non-governmental organizations) with relevant information for future planning and interventions of appropriate strategies to promote and maintain exclusive breastfeeding practices for the first six months of infant life.

Thus, the study can be used as a reference for nurse educators, health care professionals especially pediatrics nurses and for others who are interested in carrying out further studies with this regard.

2: LITERATURE REVIEW

2.1 Prevalence of Exclusive Breastfeeding practice

Despite appropriate feeding practice is the most cost effective intervention to reduce child morbidity and mortality, only 35% of infants worldwide are exclusively breastfed during the first four months of life(9), 38% of infants less than 6 months of age are exclusively breastfed in the developing countries and 31% in SSA (10).

The rate of exclusive breastfeeding is low in Africa, especially in WCA which is only 21% which results chronic malnutrition like stunting for more than 40% of cases and further deteriorates the child potential to learn and grow throughout their lives(2).

A cross-sectional study in Malaysia among mothers of children between 6 – 24 months of age group showed only 44.3% of mother's breastfeed their child exclusively until 6 months (19) and another similar study in Malaysia to investigate the factors associated with EBF showed that the prevalence of exclusive breastfeeding among mothers with infants aged between one and six months was 43.1%(20).

A cross-sectional study in Al Hassa, Saudi Arabia, Exclusive breastfeeding at birth was reported 76.1%, which declined to 32.9% and 12.2% at the age of 2 and 6 months(21) and another survey done in Bangladish showed prevalence of EBF was 36%(22).

A study conducted in Timor-Leste to investigate factors associated with exclusive breast feeding among infants aged five months or less using the data from the national Demographic and Health Survey of state overall 49% infants were exclusively breastfed. And exclusive breastfeeding prevalence declined with increasing infant age, from 68.0% at less than one month to 24.9% at five months(23).

A cross-sectional survey conducted in Dare salaam among HIV positive mothers with infants aged 6 to 12 months to characterize infants feeding practices showed the prevalence of exclusive breastfeeding was 46%(24).

A study conducted in Cameron between the ages of 0 and 1 year old infants only 26% mother's breast fed their children exclusively on breast milk(25) and a similar study in Nigeria showed only 20% of the respondents practiced EBF while majority (80%) do not(26).

Another cross sectional survey examined the practice of exclusive breastfeeding among professional working mothers in Kumasi Metropolis of Ghana, 48% of professional working mothers were practiced exclusive breastfeeding and 52% could not practiced exclusive breastfeeding (27).

Another study in Egypt showed all mothers had breastfed their infants but 32.4% of them initiated breastfeeding within the first hour of life and only 29.9% exclusively breastfed their infants for 6 months after birth(28).

According to community based cross sectional study in Kigoma Tanzania the prevalence of EBF among mothers in Kigoma Municipality was 58%(29).

In a Study conducted in Sudan on breast feeding indicators among mothers with their infants 64.5% of woman breastfed exclusively for four months where as those who breastfed for six months were 29.5%(30). Another study in Nairobi, Kenya showed that the EBF rate was 34 %(31).

In Ethiopia breast feeding is a common practice, but a large proportion of mothers do not practice optimal breast feeding. According to Ethiopian demographic health survey (EDHS) 2011 estimated 52% of under 6 month aged infants are exclusively breastfed. It is estimated that 70% of 0-1 month old infants, 55% of 4-5 month old infants and 32% of 4-5 infants were

exclusively breastfed. This national survey estimated median duration of exclusive breast feeding is 4.2 months at national level and 4.6 months in Amhara region(6).

A study by using Ethiopian Demographic Health Survey 2005 data showed that the prevalence of EBF practice was 49% (32). Similarily studies conducted in Debre Markos(33), Bahir Dar(34), Mecha district North West Ethiopia(35), Injibara, Awi zone(36), Ambo(37), and Axum(38),the prevalence of exclusive breastfeeding was 60.8%, 49.1%,47.13%,44%, 42.3%, and 40.9%, respectively.

2.2 Factors associated with Exclusive Breastfeeding Practice

2.3.1 Maternal related factors

Maternal residence was associated with EBF practie in a cross sectional study conducted in Malaysia(20) and Timor-Leste(23). And similar finding in other community-based cross sectional survey in Mecha district, North West Ethiopia(35) mothers from urban areas were 0.38 times less likely to exclusive breastfed than rural mothers.

aternal age was closely associated with exclusive breastfeeding practice in studies conducted in Dutch(39), Utah state(40), and Nigeria(26) older mothers practiced EBF better than youngers. However, another study in Injibara Awi zone, Ethiopia; mothers between 18-23 years were 9 times more likely to breastfeed exclusively than those who were 30 and above years(36).

Studies indicated that marital status is significantly associated with EBF in studies conducted Utah State(40) and Nigeria(26, 41) married mothers practiced EBF more than single, divorced or widowed mothers. But a study by using Ethiopian Demographic Health Survey (EDHS) 2005 showed women who were not married were 2 times more likely to breastfeed their child exclusively than who were married (32).

Maternal educational status was also significantly associated with EBF practice in a study done in Brazil (42), Hong Kong, China (43), Dutch(39), Utah state(40), Cameron(25), and Nigeria(44) showed significant relationship between EBF and maternal educational level. But in Bahir Dar, Ethiopia (34) mothers who didn't read and write were 3 times more likely to practice EBF than those who were educated secondary school and above. And in other similar study by using EDHS 2005 mothers who were not educated were 2 times higher to practice EBF than those who were educated secondary school and above(32).

A crossectional study in Zimbabwe showed Socio-cultural and religious factors influence mothers to give extra feedings to babies under the age of six months which poses a great challenge to their health (45). And also maternal ethinicity affected the practice of EBF according to a cross sectional study done in Nigeria(41).

Another cross-sectional study in Malaysia among mothers of children between 6 – 24 months of age showed that being unemployed was found positively associated with duration of EBFpractice (AOR 2.96) while employed mothers practice of EBF up to 6 months was low(19) and similar finding in other cross sectional study in Malaysia (20).

A randomized controlled trial of verbal and written advice about exclusive breast-feeding was provided to Dutch women for 6 months: mothers intended hours of work per week after maternity leave was found to affect EBF practice (39) and also employment status affect EBF in researches done Utah State (40), Cameroon(25) and Timor-Leste (23) in which employed mothers were found less likely to practice EBF. In Awi Zone(37) and Debre Markos(33), Ethiopia employed mothers were found less likely to breastfed exclusively than unemployed mothers.

Another cross sectional survey examined the practice of exclusive breastfeeding among professional working mothers in Kumasi Metropolis of Ghana, 48% of professional working

mothers were able to practice exclusive breastfeeding while 52% could not practice exclusive breastfeeding (27).

Parity of mother was significantly associated with practice of EBF as evidenced by studies in malaysia multiparous mothers were almost twice more likely to exclusively breastfeed compared to primiparous mothers (20), and in other studies in Dutch (39), Nigeria(26, 41), and in Egypt(28) parity of mother was positively associated with EBF practice. But a study in Bahir Dar, Ethiopia mothers who are primipara were 2 times higher to practice EBF than those who were multipara(34).

Knowledge and Exposure to information about breastfeeding of mothers had significant association with practice of exclusive breastfeeding i.e mothers who had aduquate knowlege and exposed to information related to breast feeding practiced EBF better than those who hadn't in studies done in Dutch(39), Cape Metropole (46), Cameroon(25) and in Egypt(28) and in Debre Markos, Ethiopia(33) mothers who were informed and had adequate knowledge about breastfeeding were 2.57 times to higher to practice EBF.

Breast feeding experiance of the mother was also associated with practice of exclusive breast feeding as in a cohort study with follow-up of mother-child pairs selected from all maternities in the municipality Feira de Santana, Brazil to investigate factors for early discontinuation of exclusive breast feeding by collecting data in hospital and in home visits during the first month of life showed lack of prior breastfeeding experience affects the duration of exclusive breastfeeding practice(47), and similar finding in Dutch (39), and Cape Metropole (46) lack of breastfeeding experiance affected EBF by 38%.

A cross sectional study in Malaysia showed non-smoking mothers and who practice bed-sharing with their child were 5 and1.5 times more likely to EBF their child than those mothers who were smoking and who didn't practice bedsharing with their child respectively(20).

2.3.2 Obstetric and Health service Related Factors

Antenatal care had an association with higher chance of EBF in studies conducted in Nigeria(26, 41). Mothers who got three and above ANC visit were 1.7 times more likely to breastfeed their infants exclusively than those who did not get ANC visit Mecha district, North West, Ethiopia (35) and in a research done in Debre Markos mothers who were counseled about breast feeding during ANC practiced EBF 2.44 times more likely than those who were not counseled(33).

Postnatal care was also associated with higher chance of EBF practice in studies conducted in Nigeria(26, 41), in Debre Markos(33) and Bahir Dar, Ethiopia(34). Mothers who got PNC were 2.27 times more likely to practice EBF than others who hadn't got in a study conducted in Mecha district, North West Ethiopia (35).

A cross sectional study done in India to investigate whether place of birth has a significant role in the health status and feeding practices of the child showed that in home deliveries a large majority of infants were not exclusively breastfed both in rural (96.4%) and urban (95.9%) areas. In home deliveries 95.4% children suffered from repetitive episodes of diarrhea, 94.1% suffered from acute respiratory tract infections and 40.4% from ear discharge (48).

In Ethiopia place of birth is associated with EBF practice as evidenced by a community-based comparative cross-sectional study was conducted in Injibara town, Awi Zone mothers who deliver at health facility were 4.4 times higher to practice EBF than those who delivered at home (36).

Analytical cross-sectional study in Tamale Metropolis in Northen Ghana showed that Compared to home delivery women who delivered at a health institution were 5 times more likely to practice EBF than others(49).

Mode of delivery was associated with exclusive breast feeding practice in a study done in Brazil Cesarean delivery decreases EBF by16%(42) and delivery attendant influenced EBF practice in Ethiopia as evidenced by a community-based comparative cross-sectional study which was conducted in Injibara town, Awi Zone mothers who delivered by health professional were 3 times higher to practice EBF than those who delivered by non health professional (36).

Maternal illness like crackled nipples negatively affected the practice of exclusive breast feeding studies done in Brazil(47) and Dare salaam(24). Women who had no problems related to breasts like engorgement/cracked nipples were more likely to exclusively breastfeed compared to others in Tanzania (29) and Rawal institute of health sciences(50).

A cross-sectional survey conducted in Dare salaam showed exclusive breastfeeding practice was influenced mainly by mothers perception that breast milk is not sufficient for infant's body requirements for the first six months of life (24) and which is similar to other studies done in Zimbabwe (45) and Injibara town, Awi Zone, Ethiopia(36).

Another study in Nigeria to assess problems encountered by breast feeding mother shows that psychological problems encountered ranged from worry and stress of feeding at all times even at night (92%), having to breastfeed even in public places (82%), fear that the baby might not be getting enough nutrients (71%), to trauma of expressing breast milk (67%), fear of safety of expressed breast milk (68%) and a feeling that the baby will "dry up"if not given water or other fluids (50%). Other factors like: work place not conducive (91.6%), lack of adequate education at ante natal clinics (63%) (51).

A study to explore the antecedent factors influencing the practice of exclusive breast feeding among lactating mothers in Ayete, a rural community in Southwest Nigeria. Reasons for not practicing EBF included mothers perception that baby needs herbs for strength and vitality (31.3%); baby needed water to quench thirst (23.9%) and non-satisfaction with breast milk

alone (20.8%)(44). And mothers who perceived their newborn as non-average size were associated with a lower likelihood of exclusive breastfeeding Timor-Leste (23).

Pacifier use and use of fixed breastfeeding schedules were identified as factors predicting discontinuation of exclusive breastfeeding in a research conducetd in Brazil(47).

2.3.3 Infant related factors

Age of the infant had significant association with duration of exclusive breast feeding practice; a study in Brazil showed that each day of the infant's life reduced EBF prevalence by 1.0%(42) and other study in Timor-Leste exclusive breastfeeding prevalence declined with increasing infant age, from 68.0% at less than one month to 24.9% at five months (23). A study by using EDHS 2005 showed when the age the infant increases EBF practice declined; Infants less than two months of age were 5 times more likely to be on EBF than infant aged four to six months(32).

Birth order of the infant was also associated with the practice of EBF in a cohort study conducted in Hong Kong, breastfeeding was found to have a significant relationship with the infant's birth order; i.e,decreases with increasing in infant birth order(43). With regard to sex of the child female child had higher chance to exclusively breastfed for the first six months of life studies conducted in Axum (38). But in Bahir Dar, Ethiopia male infants were almost two times more likely to feed exclusively than females(34).

Timely initiation of breastfeeding had significant association with EBF practice. Mothers who initiated BF immediately after birth were 3 times more likely to practice EBF than those who did not initiate BF immediately after birth in studies done Injibara town, Awi Zone (36),and in Ambo mothers who initiate breastfeeding immediately were 3 times higher to practice EBF(37) and didn't feed colostrum decrease EBF practice in Axum[(38),and Dabat,Gonder (52).

Women with adequate knowledge of EBF practiced EBF better than others in studies done in Tanzania(29), Injibara town, Awi Zone(36), and Debre Markos(33). Similarily in Mecha district, North West Ethiopia (35) mothers who have adequate knowledge were almost to times more likely to practice EBF.

A cross sectional study conducted at Rawal institute of health sciences to assess the reasons of failure of exclusive breastfeeding founded that one one of the reason of failure of exclusive breastfeeding was illness of baby(50) and the infant's refusal to suckle(25).

2.3.4 Family and sociocultural related factors

Husband suport and rligious father support had a significant relation ship with EBF practice. According to a community-based comparative cross-sectional study conducted in Injibara town, Awi Zone mothers who were supported by their husband and encouraged by religious father were 2.7 and 1.9 times higher to practice EBF than who were not supprted respectively (36).

A cross-sectional survey conducted in Dare salaam indicated that family influence caused early cessation of EBF(24).While in another study in Bahir Dar, Ethiopia increasing in family size was positively associated with EBF practice(34).

An observational descriptive study on mothers with infants aged 0 to 6 months in Cape Metropole to investigate why mothers of high socio economic class prefer formula feeding. The result showed majority of mothers (80%) decided only after the birth of their infant to rather opt for formula feeding(46). And another study in Nigeria Practice of EBF was significantly more among respondents earning less money per month(44). But a study by using EDHS 2005 women in the wealth index ranking middle and above were 2 times more likely to EBF than those who are below middle wealth index level(32) and in Bangladish

mothers with higher wealth quantile practiced EBF better than those who were low socio-econmic class(22).

Support systems like being followed-up by Breastfeeding-Friendly Primary Care Initiative unit increased exclusive breastfeeding by 19.0% in a study done in Brazil (42), mothers with husbands support practice EBF was better than others who didn't supported in Malaysia(20) and Nigeria(51). While some factors that hinder to breast-feeding include lack of facilities at public places(75%) and at work(71%) to breast-feed as a study done in Cape Metropole (46). Studies on intervention strategies for breastfeeding promotion demonstrated consistently higher breastfeeding rates among intervention groups compared to others. Interventions like prenatal breastfeeding education, postpartum follow-up, and a minimum of one home visit were found 12-24.3 pecentage higher rates exclusive breastfeeding than others(53).

Research done in Nigeria showed as cultural factors affected EBF practice(41). Another study in Zimbabwe socio-cultural and religious factors influenced mothers to give extra feedings to the babies under the age of six month. About 20% mothers gave cooking oil, 70% give ill babies holy water, 30% of babies were given porridge at birth, 60% were given water and 10% were given cooking oil. About 75% of respondents interpret continuous crying of babies in their culture as hunger and 25% interpret it as illness of baby which forces them to give extra feeding to the baby(45).

2.3 Conceptual framework

Many studies in have found that excusive breastfeeding is affected by different factors. Factors which were found to facilitate or hinder EBF practices are grouped in to four parts. These are maternal sociodemographic characteristics, obstetric & health service related factors, breastfeeding and infant related factors, and family & sociocultural related factors**.** The conceptual framework shown in figure below for this study was adopted and modified from previous related researches done on similar topics (24, 54). It helps to summarize the relationship between exclusive breastfeeding and its associated factors.

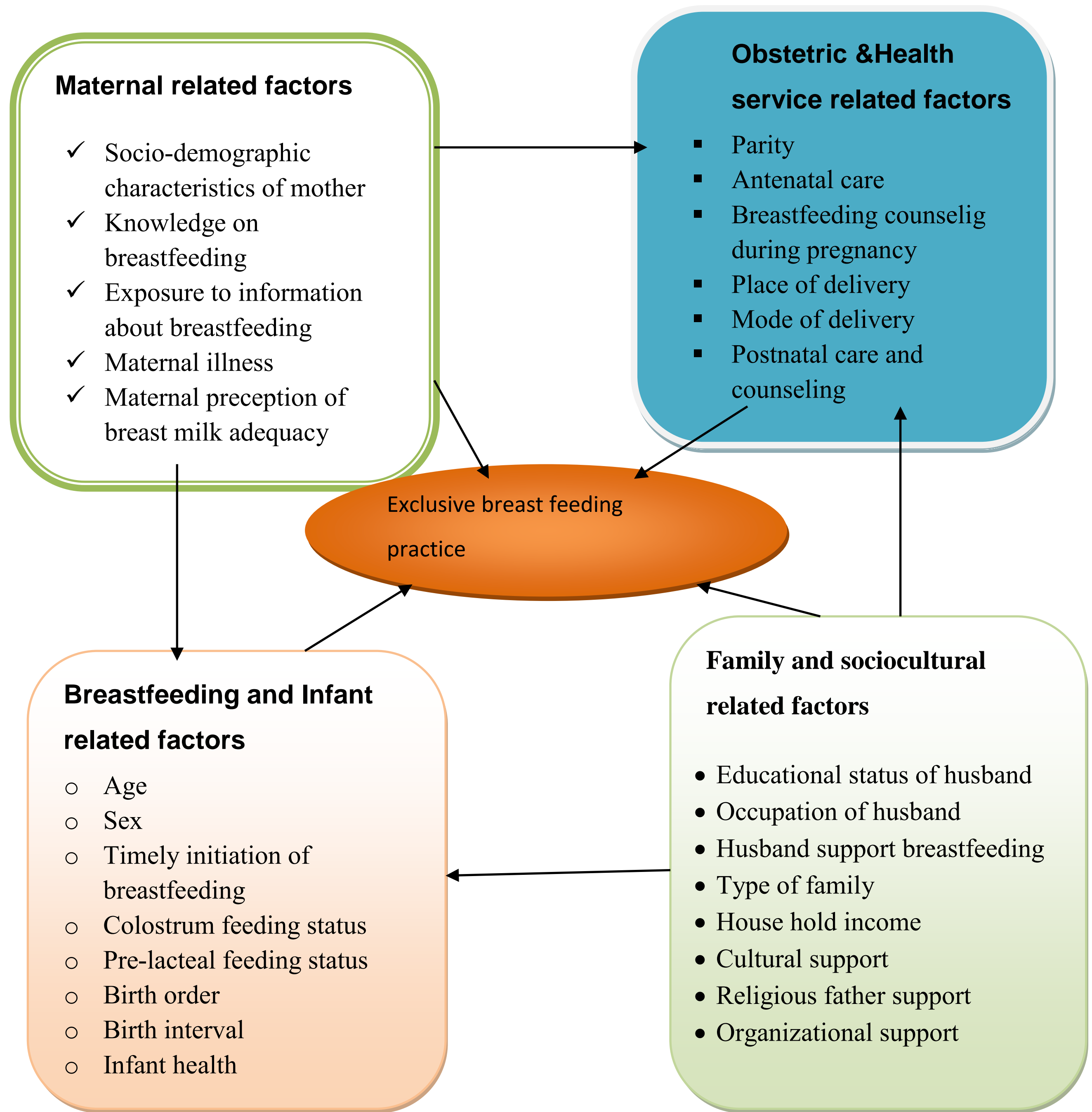

Figure 1: Conceptual framework

(adapted and modified from Saka FG.,2012(24) and Berhe H.,2011(54).

3: OBJECTIVES

3.1 General Objective

To assess exclusive breastfeeding practices and associated factors among mothers who have infants less than six months old in Motta Town, East Gojjam Zone, Ethiopia, 2015.

3.2 Specific Objectives

1. To determine the prevalence of exclusive breastfeeding.

2. To identify factors associated with exclusive breastfeeding.

4: METHODS AND MATERIALS

4.1 Study design and period

Community based quantitative cross-sectional study was conducted from April 7 to May 7, 2015.

4.2 Study area

The study was conducted in Motta town which is located in Amhara National Regional State, East Gojjam Zone, Ethiopia. It is bordered in all dimensions by Hulet Ejju Enesse worda. It is 371 km away from Addis Ababa and 120 km from Bahir Dar (which is seat of the regional government). Motta town was founded in 1754. The town has a total of 4 kebeles.The population of the town is 33,500. Out of this 17060 are males and 16440 females and 520 are children less than 6 months of age. More than half of the people (56.87%) were orthodox Christians. The town has a total of 17 governmental and nongovernmental health care institutions on work. These are 1 hospital, 1 health center, 5 clinics and 1 pharmacy and 9 drug stores(55).

4.3 Source population

All mothers who had infant less than 6 months old in the town

4.4 Study population

All randomly selected mothers who had an infant less than six months old in the town

4.5 Eligibility criteria

4.5.1 Inclusion criteria

- Mothers who had an infant less than 6 months old and available at the time of data collection.
- Who lived in the area at least for six months

4.5.2 Exclusion criteria

- Mothers who were seriously ill or unable to give the required information during data collection period were excluded from the study.

4.6 Sample Size and Sampling Procedure

4.6.1 Sample Size Determination

The sample size was calculated using single population proportion formula by considering the following assumptions:

P = 49.1 % proportion of exclusive breastfeeding practice which was the prevalence of exclusive breast feeding in Bahir Dar town, North West Ethiopia(34).

Level of confidence = 95%

Level of significance = 5%

Margin of error (d) =5%

n= $\frac{z^2_{\alpha/2} \times p(1-P)}{d^2}$ where;

n- The minimum sample size required

P- Estimated proportion of infants less 6 months old who are exclusively breastfed

d- Margin of error

$Z^{\alpha}/_{2}$- Standard normal value at (1- α) 100% confidence level

n= $\frac{(1.96)^2 \text{X}0.471\ (1-0.471)}{(0.05)^2}$ = 384

After considering 10% non- response rate, the final sample size= 423

4.6.2 Sampling Procedure

All four Kebeles of the town were included in the study. The registration of mothers who have a child less than 6 months by the local health extension workers was used to get the list of childeren in each kebele. Then, sample from each kebele was determined using proportional allocation to size (PAS). Finally, study subjects were selected using simple random sampling method. If more than one mother who has an infant less than 6 months old found in the same house, and then the mother with the youngest child was selected. Lottery method was used if mothers had a child of the same age. If the eligible mother absent from the house at the time of data collection, revisit was done again and if they were absent at second visit they were considered as non respondent.

4.6.3 Proportional allocation

In motta town there are four kebeles the total number of children less than six month in the town were 520. Out of them 147 were in kebele 01, 115 in kebele 02,138 in kebele 03 and the rest 130 children were in kebele 04(55). Based on propertional allocation to size this 423 study subjects were distributed to each kebele using the following formula.

$$nk = \frac{n \times Nk}{N}$$

Where; nk =required sample size from each kebele (k01, k02, k03, k04)

n=the total sample size=423

NK=total number of infant less than six month in each kebele (Nk01=138, Nk02=115, Nk03=128, Nk04=130)

N=total number of infants less than six months in the town=520

After that the sample size was allocated to each kebele as follws;

$$nk01 = \frac{n \times Nk01}{N} = \frac{147 \times 423}{520} = 120$$

$$nk02 = \frac{n \times Nk02}{N} = \frac{115 \times 423}{520} = 93$$

$$nk03 = \frac{n \times Nk03}{N} = \frac{128 \times 423}{520} = 104$$

$$nk04 = \frac{n \times Nk04}{N} = \frac{130 \times 423}{520} = 106$$

Therefore to get 423 children less than six months from motta town; 120 were taken from kebele 01, 93 from kebele 02, 104 from kebele 03 and 106 from kebele 04.

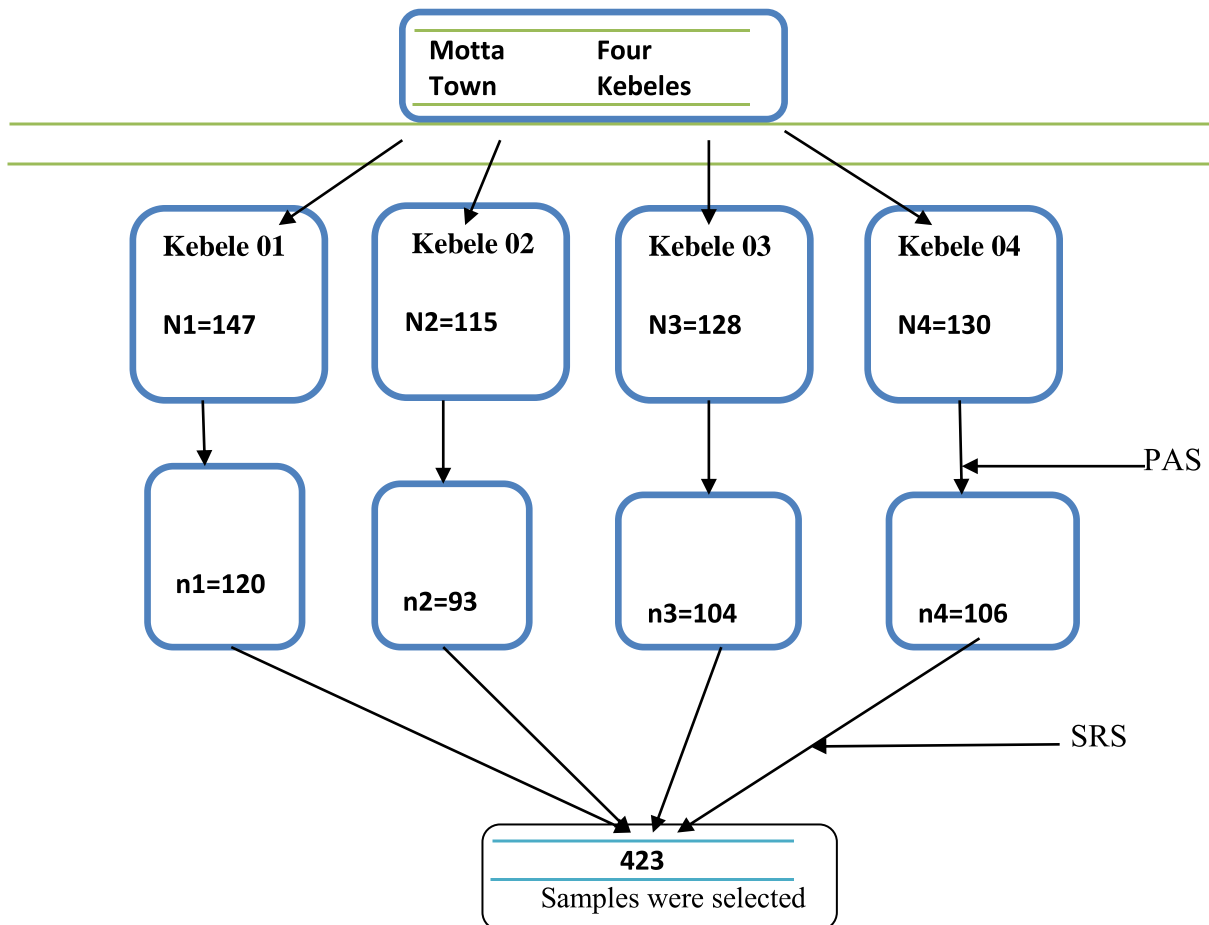

Figure 2: Schematic presentation of sampling procedure

4.7 Data Collection Procedure

4.7.1 Instrument and measurement

A structured interviewer adminsterd questionnaire was used to collect data from participants or mothers of achild. It was constructed by adopting and modifying from Ethiopia Demographic and Health Survey (EDHS) 2011(6) and from previous research done on similar topic (33).

First, the English version of the questionnaire was prepared. Then it was translated to Amharic version (local language) and back to English. The questionnaire consists of five parts. The first part was about socio-demographic characteristics of the respondent. The second and third contain maternity and maternal/infant health service utilization questions and breastfeeding questions respectively. The forth part of the questionnaire was about soruces of information and exclusive breastfeeding knowledge and the last section was regarding barriers to exclusive breast feeding. A one day infant diet recall method was used for assessing exclusive breastfeeding.

4.7.2 Data collectors

Four diploma nurses were recruited as data collectors and two Bachelor of Science nurses were recruited as supervisors. Data collectors were responsible to interview the mother of a child, record the result in a consistent manner and finally submitted the result to the investigator as scheduled.

4.8 Data quality assurance

All data collectors and supervisors were oriented and trained on how to interview and record the data and were assigned to each kebele. In order to assess apropriateness of wording, clarity of the questions and respondent reaction to the questions and interviewer, it was pre-tested on 5% of the calculated sample size of mothers those who were not the actual study participantsand adjustment

was made based on the results of the pre-test. If the mother was not available during data collection period, repeated trial was attempted to get her. During the data collection time close supervision and monitoring was carried out by supervisors and the investigator to insure the qulity of the data. Finally the collected data was checked by the supervisor and investigator for its completness.

4.9 Variables of the study

4.9.1 Independent variables

Maternal related

- Age
- Ethnicity
- Religion
- Marital status
- Educational status
- Occupation
- Mothers knowlege on breastfeeding
- Exposure to information about breastfeeding
- Maternal illness
- perception of breast milk adequacy

Obstetric & Health service related

- Parity
- Antenatal care
- Breast feeding counseling during pregnancy
- Place of delivery

- Mode of delivery
- Postnatal care

Infant related

- Age
- Sex
- Birth order
- Birth interval
- Timely initiation of breastfeeding
- Colostrum feeding status
- Pre-lacteal feeding status
- Infant health.

Family and sociocultural related factors

- Husband occupation
- Husband educational status
- Husband support
- Income
- Type of family
- Cultural support
- Organisational support
- Religious father support

4.9.2 Dependent variable

- ➢ Exclusive breastfeeding practice

4.10 Operational definitions:

Exclusive breastfeeding: If infant fed only breast milk (with the exception ordered medicines and vitamins by health professionals) one day (24hrs) before the survey was conducted.

Predominant breastfeeding: if an infant mainly took breast milk with non-milk liquid foods like plain water, tea, salt/sugar solution and juices one day (24hrs) before the survey was conducted.

Mixed breastfeeding: if an infant took breast milk with addition of liquid foods like cow milk and formuala milk and soft foods like mashed potatoes/meat, porridge, egg, butter one day (24hrs) before the survey was conducted.

Exclusive replacement feeding: If an infant took other foods without breast milk one day (24hrs) before the survey was conducted.

Timely initiation of breastfeeding: If an infant within one hour (including one hour) of birth is put on mother's breast to feed.

Pre-lacteal feeding: If an infant within the first three days of life feed something other than breast milk.

Adequate knowledge about breast feeding: If a mother answered half and above correctly from questions which were asked to measure breastfeeding knowledge.

Husband support: if a mother was supported by husband either by advice or economy to excusively breastfeed an infant.

Religious father support: if a mother were adviced or encouraged by her respective religious father to breastfeed her infant at least once since birth of an infant.

Organizational support: if employed mother got either extra maternity leave in addition to the two month postpartum leave or got permission by the organization as needed to breastfeed an infant.

Cultural support: if mother responds as she were supported by neighours and community to breastfeed her infant either by advice that breastfeeding is important to maintain babies health, baby positioning and management of breastfeeding problems or supported by decreasing mothers work load at home.

Maternal illness: if mother got difficulty to breastfeed an infant due to illness like active tuberculosis, HIV/AIDS, malignancy and breast related illness sore nipples, crackles, engoregment and abscess of breast.

Infant illness: if an infant is unabe to feed breast milk or get difficulty to suck breast due to different illness like acute illnesses, oral thrush and cleft lip/palate.

4.11 Data Processing and Analysis

The collected data was checked manually for completeness and consistencies, and then it was coded and entered in EPI Info version 3.5.3 and exported to SPSS version 16 for analysis. Descriptive statistics was used to summarize the socio-demographic characteristics' of the study participants and the prevalence of exclusive breast feeding.To identify factors associated with exclusive breastfeeding practice, binary logistic regression analysis carried out at two levels, first bivariate logistic regression was performed to each independent variable with the outcome variable and those variables with a p value < 0.05 was included in the final model (multivariate analysis). Strength of association was measured using odds ratio, and 95% confidence intervals. Statistical significance was declared at P value <0.05.

4.12 Ethical considerations

Ethical clearance was obtained from AAU, department of nursing and midwifery research committee. Each study participant was adequately informed about the objective of the study and anticipated benefit and risk of the study by their data collector. Verbal consent was obtained from study participants for protecting autonomy and ensuring confidentiality. Respondents were also told the right not to respond to the questions if they didn't want to respond or to terminate the interview at any time.

4.13 Dissemination and Utilization of results

Result of the study will be submitted and presented to department of Nursing and Midwifery, School of Allied Health Sciences, College of Health Sciences, Addis Ababa University. The study result will also be submitted to Motta Town Administration, East Gojjam Zonal Health Bureau and Amhara Region Health Office. Effort will be made to present the result in locally or internationally held seminars, workshops, conferences and meetings.For the publication purpose, the abstract of this thesis will be submitted to national or international peer reviewed publishers.

5: RESULTS

5.1. socio-demographic characteristics

Out of 423 eligible mothers, 405 were agreed to participate in this study, which made a response rate of 95.7%. The mean age of mothers was 28.35 years (standard deviation, SD± 5.8). Around one third (31.4%) of mothers were between 25-29 years. More than half (56.5%) of mothers were Orthodox Christian followers. With regard to educational status, 162(40.2%) mothers were not educated at all. Majority (79.6%) of study participants were unemployed mothers. From all, 328(80%) mothers live in a nuclear family. The average household income of the respondents was 1524.26 Ethiopian birr per month (SD± 1259.65), and 198(48.9%) respondents earn less than or equal to 1000 birr per month **(T*able 1*).**

Table 1: Socio-demographic characteristics mothers (respondents) who have infants less than six months old, in Motta town, East Gojjam Zone, Ethiopia, 2015.

Variable	Category(n=405)	Frequency	Percent
Age of mother(in years)	15-19	5	1.2%
	20-24	106	26.2%
	25-29	127	31.4%
	30-34	94	23.2%
	35 and above	73	18.0%
Religion	Orthodox	229	56.5%
	Muslim	158	39%
	Others*1	18	4.4%
Ethnicity	Amhara	388	95.8%
	Others*2	17	4.2%
Level of education of mother	No education	163	40.2%
	Primary level (1-8 grade)	120	30.0%
	High school and above	122	29.8%
Occupational status of mother	Employed	82	20.3%
	Unemployed	323	79.6%
Current marital status	Married	347	85.7%
	Unmarried* 3	58	14.3%
Husband educational level	No education	79	22.4%
	Primary level (1-8 grade)	131	37.1%
	High school and above	143	40.5%
Husband occupation	Employed	111	31.5%
	Unemployed	294	68.5%
Type of family	Nuclear family	328	80 %
	Extended family	77	20%
Household income	≤1000	198	48.9%
	1001-2000	107	26.4%
	≥2001	100	24.7%

*1 Protestant and Catholic *2 Oromo, Tigrie and Gurage *3 single, widowed and separeted

5.2. Infant and maternal health service utilization characteristics

Almost half (52.1%) of mothers have 2-3 children. The mean age of infants was 3.6 months (SD±1.5), and 231(57.0%) infants were between 4-5 months old. One hundred ten (27.2%) infants were first in birth order. Majority (86.2%) of mothers received antenatal care (ANC) during period of pregnancy out of them only 206 (59.0%) were counseled concerning to breast feeding.With regarding to place of delivery, most (83.5%) mothers delivered in health institution. From total respondents, around half (48.6%) of mothers received postnatal care, and 186 (94.4%) were told about exclusive breastfeeding up to six months ***(Table 2)***.

Table 2: Infant and maternal health service utilization characteristics of study participants in Motta town, East Gojjam zone, Ethiopia, 2015.

Variable	Response (n=423)	Frequency	Percent (%)
Number of children	One	111	27.4%
	Two to three	211	52.1%
	Four and above	83	20.5%
Sex of child	Male	180	44.4%
	Female	225	55.6%
Age of child	0-1month	55	13.6%
	2-3month	119	29.4%
	4-5 month	231	57.0%
Birth order	First	110	27.2%
	Second	125	30.9%
	Third and above	169	41.9%
Birth interval	Up to three years	236	58.3%
	Three years and above	169	41.7%
ANC follow up	Yes	349	86.2%
	No	56	13.8%
Number of ANC follow up (n=349)	Less than or equal to three	86	14.6%
	Four times	263	75.4%
Counseling related breast feeding during ANC(n=349)	Yes	206	59.0%
	No	143	41.0%
Place of birth	Health facility	338	83.5%
	Home	67	16.5%
Mode of delivery	Vaginal /normal	367	90.6%
	Caeserian section	38	9.4%
PNC	Yes	197	48.6%
	No	208	51.4%
Counseling regarding to breastfeeding during PNC(n=197)	Yes	186	94.4%
	no	11	5.6%

5.3 Breastfeeding and related practices

All mothers have breastfed their current infant for a certain period of time. From total, 320 (79.0%) mothers initiated breast milk to infant immediately within one hour of birth. Most mothers (79.8%) fed colostrum/first milk to the newborn. Majority (79.8%) of mothers didn't give prelactal food other than breast milk within three days of an infant life. Prevalence of exclusive breastfeeding practice one day before the survey was 50.1% [95%CL: 45.22%-54.98%]. Among mothers who didn’t exclusively breastfeed their infant, the main reasons mentioned were; perception of breast milk only not sufficient for infant 61(30.2%), lack of time 46 (22.8%), and decreased breast milk secretion 38 (18.8%) ***(Table 3)***.

Table 3: Breastfeeding related practices of mothers who have infants less than six months old in Motta town, East Gojjam zone, Ethiopia, 2015.

Variables	Responses (n=405)	Frequency	percent
Breastfeeding experiance of current infant	Yes	405	100%
	No	0	0.0%
Timely initiation of breastfed	Yes	319	79.0%
	No	85	21.0%
Colostrum feeding	Yes	323	79.8%
	No	82	20.2%
Prelacteal feeding	No	323	79.8%
	Yes	82	20.2%
Infant feeding one day before the survey	Exclusively breastfeeding	203	50.1%
	Predominatly breastfeeding	156	38.5%
	Mixed breastfeeding	46	9.9%
	Exclusive replacement feeding	6	1.5%
Reasons for not exclusively breastfed (n=202)	Decreased breast milk secretion	38	18.8%
	Breast milk only not sufficient for infant	61	30.2%
	Infant becomes thirsty	25	12.4%
	Lack of time	46	22.8%
	Maternal illness	32	15.9%
Who influence you to give other feeding (n=202)	Husband/spouse	39	19.3%
	My mother	23	11.4%
	Mother in law	3	1.5%
	Health worker	6	3.0%
	My own decision	131	64.8%

Majority (87.8%) of mothers were supported by their husband to feed infant exclusively on breast milk. Among employed mothers only 4(3.7%) were encouraged by their organization to breastfed their infant ***(Table 4)***.

Table 4: Support systems of mothers to fed exclusively the infant among those who have infants less than six months in Motta town, East Gojjam zone, Ethiopia, 2015.

Variables	Responses	Frequecy	Percent
Husband support (n=353)	Yes	310	87.8%
	No	43	12.2%
Religious father support (n=405)	yes	20	4.9%
	no	385	95.1%
Organizational support of EBF	yes	4	3.7%
(n=82)	no	78	96.3%
Cultural support of EBF(n=405)	yes	2	0.5%
	no	403	99.5%

5.4. Information and breastfeeding knowledge of mothers

Regarding to information about exclusive breastfeeding 362(89.4%) mothers were informed about EBF from different sources.

Figure 3: Percent distribution of mothers' informational status about EBF in those who have infant less than six months old in Motta town, East Gojjam zone, Ethiopia, 2015.

The following diagram shows the sources of information for mothers about breastfeeding.

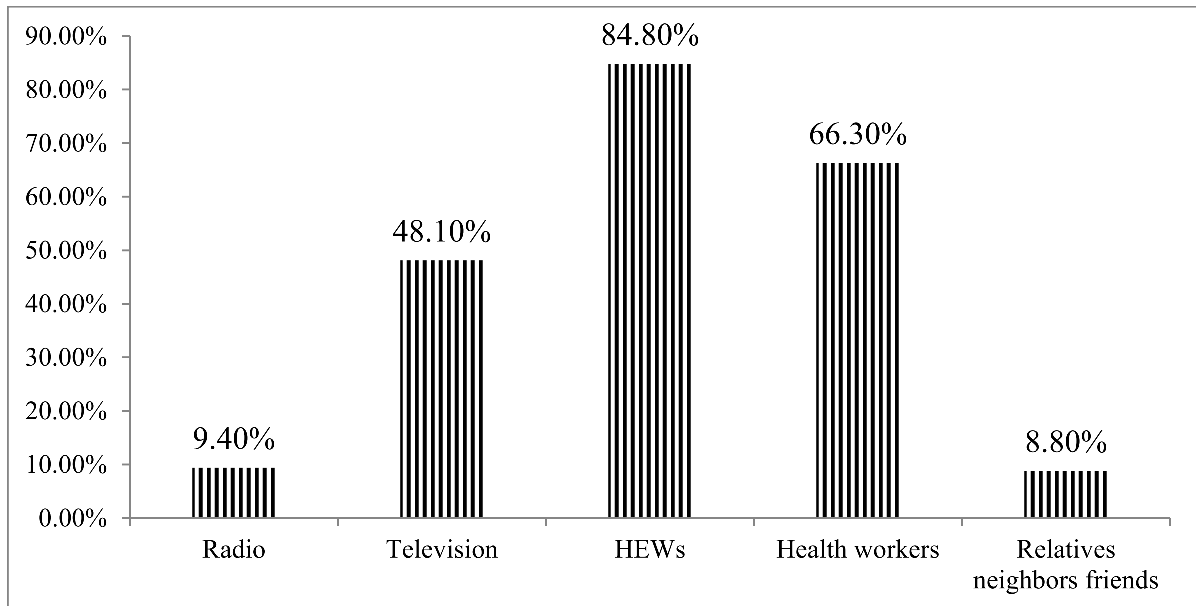

Figure 4: Sources of information for mothers about EBF who have infant less than six months old in Motta town, East Gojjam zone, Ethiopia, 2015.

Knowledge of mothers regarding to breastfeeding

Almost two third (66.4%) of mothers know as breast milk alone without water and other liquids is enough for an infant during the first 6 months of life.

From questions which were asked to measure breast feeding knowledge; if a mother responds half and above correctly from all questions, she was considered as having adequate knowledge on breastfeeding. On the other hand, mothers who answered less than half correctly were considered as having inadequate knowledge on breastfeeding.

The following chart depicts mother's level of knowledge on breastfeeding.

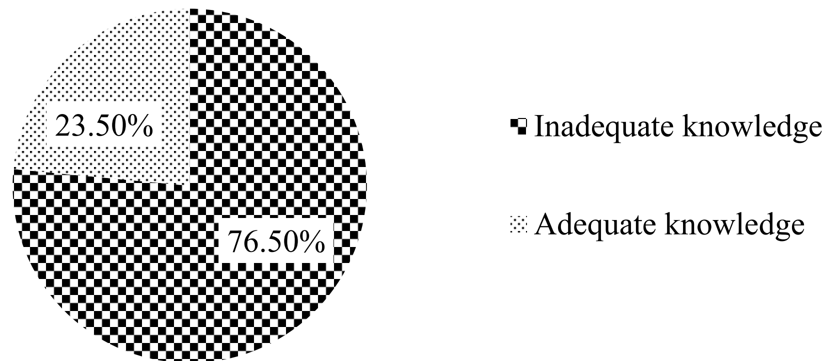

Figure 5: Percent distribution of level of Knowledge on breastfeeding of mothers who have infant less than six months old in Motta town, East Gojjam zone, Ethiopia, 2015.

5.5. Factors associated with exclusive breastfeeding

From total participants of this study, half [(50.1%) 95%CL: 45.22%-54.98%] of mothers practiced exclusive breastfeeding. To identify factors associated with exclusive breastfeeding practice, each variable were assessed independently whether they were predictor of EBF practice or not. First variables were tested using bivariate analysis. Variables which were associated in the bivariate logistic regression analysis ($P<0.05$) were; age of infant, occupation of mother, marital status, income of the household, antenatal care, breast feeding counseling during ANC, place of birth, mode of delivery, postnatal care, timely initiation of breast feeding, Colostrum feeding , prelactal feeding and husband support. Variables which were associated in the bivariate analysis were tested in the final multivariate analysis to see their significant association with exclusive breastfeeding practice.

After adjusting for potential confounders in multivariate logistic regression analysis ; age of infant, maternal occupation, household income, breastfeeding counseling during ANC, husband support of breastfeeding, colostrum feeding and prelactal feeding were remained significant in the final model. But marital status, ANC, place of delivery, mode of delivery, PNC, timely initiation and religious father support lost their significance.

Age of the infant was significantly associated with exclusive breastfeeding practice. An infant who is 0-1 month old was 4 times more likely to exclusively breastfed than infant aged 4-5 months[AOR=3.858(1.642, 9.067)]. Similarly infants aged 2-3 months were almost 2 times more likely to feed exclusively on breast milk than 4-5 month old infants [AOR=2.235 (1.160, 4.308)].

Concerning to occupation, unemployed mothers were 3 times more likely to practice EBF than employed mothers [AOR=3.008 (1.459, 6.202)].

Income was significantly associated with EBF practice. Mothers who earn less money ($\leq$1000 birr/month) were 3.6 times more likely to practice exclusive breastfeeding than mothers whose average monthly household income is 2001 birr and above [AOR= 3.605 (1.745, 7.451)]. While mothers who earn between 1001- 2000 birr/month were almost 2 times higher to practice EBF than who get $\geq$2001/month [AOR=2.342(1.116, 4.914)]

Breastfeeding counseling during pregnancy facillitates mothers to exclusively breastfeed an infant. Mothers who were counseled regarding to breastfeeding during ANC were almost 3 times more likely to practice exclusive breastfeeding than mothers who were not counseled [AOR= 2.764(1.522, 4.998)].

Colostrum feeding was significantly associated with EBF practice. Mothers who fed Colostrum to infant were 3.5 times higher to practice EBF than those who didn't feed it [AOR=3.503(1.451,

8.452)]. On the other hand, mothers who didn't give prelactal food to infant were almost 4 times more likely to practice EBF than mothers who fed prelactal food [AOR =4.4832(1.823, 11.028)].

Pertaining to support, mothers who got husband support of breastfeeding were almost 3 times more likely to practice EBF to the infant than mothers who were not supported by husband [AOR=2.686(1.037, 6.953)] ***(Table 5).***

Table 5: Factors that affect EBF practice among mothers of infants age less than 6 months using bivariate and multivariate logistic regression analysis model, East Gojjam, Ethiopia, 2015

Variables		EBF Practice		COR (95% CL)	AOR(95% CL)
		Yes (N & %)	No (N & %)		
Age of child in months	0-1	37(67.3)	18(32.7)	2.840(1.526,5.283)	**3.858(1.642, 9.067)***
	2-3	69(58.0)	50(42.0)	1.906(1.218, 2.984)	**2.235(1.160, 4.308)***
	4-5	97(42.0)	134(58.0)	1	1
Occupational status	Unemployed	173(53.6)	150(46.4)	1.999(1.213, 3.295)	**3.008(1.459, 6.202)***
	Employed	30(36.6)	52(63.4)	1	1
Marital status	Married	182(52.4)	165(47.6)	1.943(1.093, 3.455)	
	Unmarried	21(36.2)	37(63.6)	1	
Income	≤1000	114(57.6)	84(42.4)	2.634(1.597, 4.346)	**3.605(1.745, 7.451)***
	1001-2000	55(51.4)	52(48.6)	2.053(1.171, 3.599)	**2.342(1.116, 4.914)***
	≥2001	34(34.0)	66(66.0)	1	1
ANC	yes	185(53)	164(47)	2.381(1.308, 4.335)	
	no	18(32.1)	38(67.9)	1	
Breastfeeding counseling during ANC	yes	131(63.6)	75(36.4)	2.879(1.851, 4.476)	**2.764(1.522,4.998)***
	no	54(37.8)	89(62.2)	1	1
Place of birth	Health facility	185(54.7)	153(45.3)	3.292(1.841, 5.885)	
	Home	18(26.9)	49(73.1)	1	
Mode of delivery	Normal/ vaginal	190(51.8)	177(48.2)	2.064(1.024, 4.160)	
	C/S	13(34.2)	25(65.8)	1	
PNC	yes	116(58.9)	81(41.1)	1.992(1.341,2.958)	
	no	87(41.8)	121(58.2)	1	
Timely initiation	yes	184(57.7)	135(42.3)	4.806(2.757, 8.378)	
	No	19(22.1)	67(77.9)	1	
Colostrum feeding	yes	185(57.3)	138(42.7)	4.767(2.702, 8.407)	**3.503(1.451, 8.452)***
	No	18(22)	64(78)	1	1
Pre-lacteal feeding	No	189(58.7)	133(41.3)	6.902(3.726,12.786)	**4.483(1.823, 11.028)***
	Yes	14(17.1)	68(82.9)	1	1
Husband support	Yes	174(56.1)	136(43.9)	4.222(2.010, 8.869)	**2.686(1.037, 6.953)***
	No	10(23.3)	33(76.7)	1	1

1=reference *=p-value less than 0.05(significant) N=number %=percent

6. DISCUSSION

Breast milk is the one and only natural, complete and complex nutrition for human infants. It is superior to any product given to a baby and it is immediately available, fresh, temperature always correct and constant, and economical(1). It provides all infants nutritional and fluid needs in the first six months and is a perfect combination of proteins, fats, carbohydrates and fluids(2). Exclusive breastfeeding is the recommended for infants in the first six months of infant life (6). Exclusively breastfed children are at a much lower risk of infection (3-5) and it is the best and cost effective intervetion to reduce infant morbidities and mortalities (2).

Inspite of what is known about the benefit of exclusive breast feeding; the practice is not satisfactory in the study area. Only half [50.1% (95% CL: 45.22% -54.98%)] of mothers reported they were exclusively breastfed their infant, which is lower than Ethiopian HSDP IV target level; i.e to increase the proportion of exclusive breastfeeding mother from 49% to 70% by the end of 2015 (17). This result is comparable to the 2011 Ethiopian DHS report 52% (6), EDHS 2005 49% (32) and which is also comparable with other similar studies done in; Bahir Dar, Ethiopia 49.1% (34), Kumasi Metropolis, Ghana 48% (27), Mecha district, NorthWest, Ethiopia 47.13% (35) and Dare salaam, South Africa 46% (24). This finding is higher than; worldwide prevalence 35% (9), SSA 31% (10) and from other studies done in; Malaysia 44.3%(19), Injibara, Awi zone 44% (36), Ambo 42.3% (37), Axum 40.9% (38), Bangladish 36% (22), Nairobi, Kenya 34% (31), Egypt 29.9% (28), Sudan 29.5% (30) and Nigeria 20% (26). But the result is lower than from studies done in Kigoma Tanzania 58% (29) and Debre Markos, Ethiopia 60.8% (33).The difference might be due to methodological variations between studies, dissimilarities in infant and maternal socio-demographic characteristics like age of infant and maternal occupation, and

other differences in sociocultural, economical, health and health service utilization characteristics between respondents of the referenced areas and the study place.

The main reasons mentioned by mothers for early discontinuation of exclusive breastfeeding were; mothers perception of breast milk only not sufficient for infants 61(30.20%), lack of time 46(22.80%), decreased breastmilk secretion 38(18.80%), maternal illness 26(12.90%), perception of infant thirsty 25(12.40%) and breast problem 6(3.00%). These results are consistent with other studies done in Brazil (47), Dare salaam, South Africa (24), Tanzania (29), and Rawal institute of health sciences (50); maternal illness and breast problems like crackled nipples negatively affected the practice of exclusive breastfeeding. And in Zimbabwe (45), Dare salaam, South Africa (24), Awi Zone, Ethiopia (36) exclusive breastfeeding practice was influenced mainly by mothers perception that breast milk only is not sufficient for infant and infant thirsty in Nigeria (44, 51). These wrong perceptions of mothers about breast milk sufficency need to be reversed through education and counseling of mothers about infant feeding practices by emphasazing the importance and adequacy of exclusive breastfeeding for infants up to six months of life.

Among the various socio-demographic factors assessed, maternal occupation was significantly associated with exclusive breastfeeding practice. Mothers who were unemployed were 3 times more likely to practice EBF than employed mothers. This result is similar with studies done in; Malaysia (19, 20), Dutch (39), Utah State(40), Cameroon(25), Timor-Leste (23), Ghana(27), Awi Zone, Ethiopia (37), and Debre Markos, Ethiopia(33). This might be due to short period of maternity leave for employed mothers in the country in which mothers return to their work within few months of infant life. Employed mothers get intricacy to breastfeed an infant exclusively due to many factors like; lack of time, distant work place from home, lack private space for breast feeding or expressing milk at work place, inflexible work schedule, absence of on-site or near-

site child care centers. Additional factors such as weaning in preparation to return to work, maternal exhaustion and the difficulty to manage the weight of work and breastfeeding may also put in to this problem. And in the context of our country employed mothers get better monthly income than unemployed mothers which may make them relaxed to give other feeding like formula to the infant. Agressive promotion of infant formula might infleunce employed mothers practice of EBF, since they are near to medias.

In this study household income was significantly associated with exclusive breastfeeding. Mothers earning less money per month (≤1000 birr/month) were 3.6 times more likely to practice exclusive breastfeeding than mothers whose average monthly household income was 2001 birr/month and above. This is in line with research findings in Cape Metropole (46) and Nigeria (44). This might be mothers who earn less money have no any option to buy other food and give to the infant rather than feeding breast milk exclusively. In this study most mothers who earn less money per month were unemployed mothers those who have sufficient time to feed breast milk exclusively. But this result is not in conformity with findings in Bangladish (22) and a study using EDHS, Ethiopia (32). This distinction could be due to sociocultural, economical and health related differences like differences in income and employemet status of mothers betwe en countries. When we came to the differences between Ethiopian studies, the later used EDHS data in which the income of mothers was determined using wealth index, not the average monthly income of the household.

From infant related factors, age of the infant was significantly associated with exclusive breast feeding practice. An infant who is 0-1 month old was 4 times more likely to feed exclusively on breast milk than infants aged 4-5 months. Similarly an infant between 2-3 months old were almost 2 times higher to feed exclusively on breast milk than 4-5 months old infant. Which is

consistent with the 2011 EDHS report (6) and other studies done in Brazil (42) and Timor-Leste (23). This could be due to cultural habit of the early introduction of other liquids and foods in the study area. There is a false perception of mothers that as infant increases in age breast milk only is not sufficient to infant and becomes thirsty when he/she took breast milk only. Most post partum care is carried out in the first few months of infant life where mothers spent most of their time at home which makes them to give only breastmilk to the infant, especially is true for employed mothers who stay at home up to two months of infant life.

Even if most mothers had antenatal follow up during their pregnancy, some attending mothers were not counseled about breastfeeding. Mothers who were counseled during preganacy about breast feeding were 3 times more likely to practice exclusive breastfeeding than those who were not counseled. This finding is parallel with studies done in low income Latins in US (53), Nigeria (51) and Debre Markos, Ethiopia (33). This could be due to the presence of supportive policy on maternal and child health, breastfeeding guidelines, and training of most health workers on infant feeding practices which will increase their knowledge and skill of breast feeding counseling. Counseling enhances mothers’ understanding and appreciation of the demands and benefits of EBF. Mothers who were counseled during pregnancy prepared themselves psychologically as well economicaly to exclusively feed only breast milk to the infant.

Mothers who fed Colostrum to the newborn were 3.5 times higher to practice EBF than mothers who didn't fed it. This finding is consistent with findings in Axum (38) and Dabat, Gonder (52). Whereas mothers who didn't give prelactal feeding to the infant were almost 4 times more likely to practice EBF than mothers who fed it, which is similar with findings in Al Hasa, Saudi Arabia (21) and Debre Markos, Ethiopia (33). This might be due to the fact that when mothers introduced other food to the newborn before breast milk, it decreases infants suckling activity and

which inturn affects or decreases maternal milk secretion due to decreased breast stimulation. Which finally made the mother to give other food to the infant, the reverse is true for colostrum feeding. The use of prelacteal feeding is a restraint in the promotion of EBF. The explanations given in this study was delayed milk secretion, due to breast problems, illness of mother and culture/ tradition like giving liquid will clean the baby's throat. This habit harms the newborn and exposes him/her to various morbidities and therefore, the practice needs to be discouraged.

Husband support had a significant relationship with EBF practice in the study area. Even if some husbands 39(19.3%) influenced mothers to give extrafeeding to the infant before six months, mothers who were supported by husband were 3 times higher to practice EBF than who were not supported. Which is similar with findings in Malaysia (20) and Injibara town, Awi Zone,Ethiopia (36). This might be in Ethiopia husband plays a major role in decision making about family and household matters and in some families are sources of the economy for the household. The power which husbands have traditionally held affects intra-households activities and many aspects of family life including infant feeding practices.

7. STRENGTH AND LIMITATION

Strength of the study

- Since it was community based study, representativeness was increased.
- The reasearch with this thematic area will give important information about EBF and related factors in the study area.

Limitation of the study

- Only the study assesses quantitative aspect not qualitative aspects, i.e doesn't include attitude and beliefs of the community related to EBF.
- It may overestimate the prevalence of EBF since the prevalence was determined using one day infant diet recall method.

8. CONCLUSION AND RECOMMENDATION

8.1 conclusion

The prevalence of exclusive breastfeeding in the study area was 50.1%, which was lower than the country recommended level. Among different socio-demographic, health service, maternal, and infant related factors studied; Age of the child, maternal occupation, income, breastfeeding counseling during ANC, husband support of breastfeeding, colostrum feeding and not feeding prelactal were the determinat factors for higher chance of EBF practice.

8.2 Recommendations

To Federal Ministry of Health

- The government should consider revising the legislation of the two month postpartum maternity leave and launch of on-site or near-site child care centers.

To Regional health bureau and Motta town health office

- Should work on promoting behavior change communication on exclusive breastfeeding practice and take appropriate actions to avoid other related traditional activities which deter EBF.
- Training of health professionals regarding to infant feeding practices & counseling should be strengthened
- Should work to stregthen maternal and child health services.
- Employed and high socio-economic class mothers should be given emphasis and every arrangement should be made to increase their exclusive breastfeeding practice.

To health care professionals

- Health extension workers who are working, participating and educating the community should change the false perception of mothers, family and community as a whole on breast feeding and related traditional practices like milking and throwing colostrum, giving prelact al feedng to the newborn and early introduction of complementary feeding.
- HEWs should give community based breastfeeding education and counseling to pregnant women and husbands should be involved and tought as how to support and encourage breastfeeding mother.
- Health workers should provide continuous breastfeeding education and counseling to mothers whenever they attend clinics for follow up with emphasis on exclusive breastfeeding.

To researchers

- Further research is needed to identify related factors of EBF especially qualitative aspects, i.e attitude and beliefs of the community related to EBF.

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ANNEXES

I: Participant Information Sheet

Good morning/ afternoon?

My name is ______________________. Currently I am a graduate student at Addis Ababa University, College of Health Sciences, School of Allied Health Sciences, Department of Nursing and Midwifery. And now I am conducting a research to assess exclusive breastfeeding practices and associated factors in Motta town.

Title of the research: Assessment exclusive breast feeding practices and associated factors among mother who have infants less than 6 month of age in Motta Town, Amhara Regional State, Ethiopia, 2015.

Objective: To assess exclusive breast feeding practices and associated factors among mother of a child less than 6 months of age in Motta town, Amhara Regional State, Ethiopia, 2015.

Participants: Randomly selected mothers having children less than n 6 months old in the town.

Potential Risks: There is no foreseen risk by being participating in this study.

Benefits: No financial benefits are related with this study. But by participating in this study, you will acquire or increase knowledge related to the practice of exclusive breast feeding.

I would like to ask you few questions. Your honest response to the questions can make the study to achieve its objective. All the information that you give will be kept confidential and private. Only the principal investigator and interviewer will have access to the information. You are kindly requested to respond voluntarily. You can also choose not to participate in this study or if you become uncomfortable during the study, you will be allowed to leave the study at any time. At any time if you have questions, you can contact me by using the following addresses.

Tilahun Tewabe **Mobile:** 09 12 71 37 38 **, E-mail**: tilahun.tewabe01@gmail.com

II: Informed consent

Addis Ababa University

College of Health Sciences

School of Allied Health Sciences

Department of Nursing and Midwifery

I herewith declare that:

- ✓ The objectives of this study are explained to me and are clear.
- ✓ The contents of the consent are verified to me to participate in the study.

I understand that participation in this study is completely voluntary and that I may withdraw at any time without supplying reasons. I agree to participate in this study to be interviewed, provided my privacy is guaranteed. When signing this consent form to participate in the study, I promise to answer honestly to all reasonable questions and not provide any false information or in any other way purposely mislead the researcher.

Signature of the participant________________________ date _____________________

Signature of the investigator________________________ date _____________________

III: Questionnaire, English Version

Addis Ababa University

College of Health Sciences

School of Allied Health Science

Department of Nursing and Midwifery

This questionnaire was adapted from EDHS 2011& similar researches that were done previously, but modified accordingly. It will used to gather information regarding exclusive breast feeding practices and associated factors.

Code Number......................

S.No	Question for the respondent	Response and code	Skip
Part I. Socio-demographic and economic characteristics			
101	What is the sex of your infant?	1. Male 2. Female	
102	How old is your infant?	____________ month	
103	How old are you?	____________Year	
104	What is your religion?	1. Orthodox christian 2. Muslim 3. Catholic 4. Protestant 5. Others (specify) ______	
105	What is your ethnicity?	1. Amhra 2. Oromo 3. Tigrie 4. Others (specify)	

106	What is your level of education?	1. Can't read and write 2. Primary school (1-8) 3. Grade 9 -12 4. Certificate/Diploma 5. Degree and above	
107	What is your occupation?	1. Housewife 2. Government employed 3. Private organization employed 4. Merchant 5. Daily laborer	
108	What is your marital status?	1. Single 2. Married 3. Widowed 4. Divorced 5. Separated	
109	If you are married/ separated, what is your husband's level of education?	1. Can't read and write 2. Primary school (1-8) 3. Grade 9 -12 4. Certificate/Diploma 5. Degree and above	
110	If you are married separated what is your husband's occupation?	1. Government employed 2. Private organization employed 3. Merchant 4. Daily laborer 5. Other (specify) ______	

111	Who lives with you in your home in addition to your husband and children?	1. Your mother/father/ sister/brother/relatives 2. Your husband's mother/father/ sister/brother/relative **3.** None of them	
112	How much is your household average monthly income?	________________ Birr.	
113	Do you have a radio and or television in your house?	1. Radio only 2. Television only 3. Both 4. No	

Part II. Maternity and maternal/infant health service utilization questions

201	How many children do you have currently?	____________	
202	What is the birth order of this infant?	1. First 2. Second 3. Third 4. Fourth and above	If first go to Q. 204
203	If the birth order of this infant is not first, how much is the birth interval from the preceding birth?	_____Year________months	
204	Did you get ANC service during your pregnancy?	1. Yes 2. No	If No go to Q. 208

205	If you get ANC service, from where did you get the service?	1. Hospital 2. Health center 3. Private clinic	
206	How often did you get ANC service?	1. Once 2. Two times 3. Three times 4. Four times and above	
207	Did you receive counseling concerning breastfeeding during your ANC visits?	1. Yes 2. No	
208	Where did you give birth of this infant?	1. Hospital 2. Health center 3. Private clinic 4. Home	
209	What was your mode of delivery?	1. Normal/vaginal 2. C/S	
210	Did you get PNC after your last birth within 45 days?	1. Yes 2. No	If No go to Q. 301
211	If yes, from where did you get the PNC service?	1. Hospital 2. Health center 3. Private clinic 4. Home	
212	Did you receive counseling regarding infant feeding during the PNC service?	1. Yes 2. No	

Part III. Breastfeeding and related questions

301	Did you breastfeed your infant?	1. Yes 2. No	
302	If yes, are you currently breastfeeding your infant?	1. Yes 2. No	
303	If no why?	1) Going back to work 2) I had illness 3) Decreased breast milk secretio 4) I have no time 5) Others,specify	
304	How soon after birth did you put your infant for the first time to breastfeed?	1. Immediately/ within 1 hour 2. 1 hour up to 1 day 3. After 1 day up to 3 day 4. After 3 day	
305	If delayed more than one hour, what were reasons that made you delay in breastfeeding initiation	1. Caesarian delivery 2. Infant illness 3. Maternal illness 4. Delayed milk secretion 5. Others(mention)	
306	Did you feed the first milk/colostrum to your infant?	1. Yes I feed 2. No I didn't feed	

307	If you didn't feed the colostrum to your infant, what is the reason?	1. Infant unable to take it as food 2. It is not good for infant health 3. It was yellow in color & creamy in appearance 4. It is the tradition/culture 5. Others (list) ____________	
308	What was given for your infant before the breast start to flow normally during the first 3 days after birth?	1. Nothing other than breast milk 2. Water 3. Butter 4. Caw milk 5. Sugar solution 6. Others (list)____________	
309	What were the reasons for introducing such food before starting breastfeeding	1) Delayed milk secretion 2) Breast problem 3) Illness of the mother 4) Illness of the child 5) culture tradition 6) Other specify	
310	Who advised you to provide your child with such type of food/ fluid?	1) My own decision 2) Grand parents 3) Friends 4)if others specify	

311	What was your infant feeding during yesterday day and night?	1. Breast milk only 2. Mainly breast milk but additionally fluids like water, tea, juice, salt/sugar solution 3. Breast milk but start to take foods like mashed potatoes/meat, fruits, porridge, egg, butter and liquids like cow/formula milk. 4. Soft foods without breast milk like mashed potatoes/meat, fruits, porridge, egg, butter and liquids like cow/formula milk, water, tea, juice, salt/sugar solution	
312	If the answer to the above question is not breast milk only, what is the reason?	1. Decreased milk secretion 2. Breast milk only not sufficient 3. Infant is thirsty 4. lack of time 5. Illness/weakness of mother 6. Nipple/breast problem 7. Others (specify) ________	

313	Who influenced your decision on your feeding practice?	1) Husband/spouse 2) My mother 3) Mother in law 4) Health worker 5) My own decision 6) religous leader 7)Others mention	
314	Role of husband in EBF	1)EBF Advice on EBF 2)Give economic support 3)Has no role	
315	Do your religious father encourage EBF	1)Yes 2)N o	
Part IVa. Breastfeeding Information and Knowledge			
	Part Iv a. Breastfeeding Information		
401	Have you ever heard about breastfeeding?	1. Yes 2. No	

402	If the answer for question 401 is yes, from where did you get it mainly?	1. Radio 2. Television 3. HEWs 4. Other health workers 5. Volunteer community health workers 6. Relatives/neighbors/friends 7. Other (specify) ________	
	Part IV b. Breastfeeding Knowledge questions		
403	Breastfeeding is important for infant health?	1. Yes 2. No	
404	Breastfeeding is important for maternal health?	1. Yes 2. No	
405	An infant should be put to breast immediately after birth?	1. Yes 2. No	
406	The first milk/colostrum should be given to an infant?	1. Yes 2. No	
407	Pre-lacteal feeding is needed for an infant before starting breast milk?	1. Yes 2. No	
408	Breast milk alone without water and other liquids is enough for an infant during the first 6 months of life?	1. Yes 2. No	
409	Starting from 6 month an infant should start complementary feeding and continued breastfeeding up to 2 years and beyond?	1. Yes 2. No	

Part Five:Barriers To Exclusive Breastfeeding

501	Did you experience any Breastfeeding problems?	1.Yes 2.No	
502	If yes, What was the problem	1) Abscess 2) Mastitis 3) Sore/cracked nipples 4) Others(mention)	
503	How did you manage the problem?	1) Express breast milk 2) Went to hospital for advice 3) Rub local herbs on it 4) Others (mention)	
504	Is there any organisational/social support for breast feeding	1)yes 2)no	
505	If yes could you mention it	________________________________	
506	What do you think are the reasons for mothers not breastfeeding exclusively?	1) Lack of information 2) Work demand 3) Insufficient breast milk 4) Traditions and cultural Beliefs 5) Other (mention)	
507	Is there any culture/ tradition prohibits you from exclusive breast feeding up to six month	1)yes 2)no	
508	If yes could you mention it	________________________________	

IV: የተሳታፊዎች መረጃ መስጫ ቅጽ-በአማርኛ

እንደምን አደሩ/ዋሉ?

ጥላሁን ተዋበ እባላለሁ፡፡ በአዲስ አበባ ዩኒቨርሲቲ፣ ጤና ሳይንስ ኮሌጅ፣ ነርሲንግና ሚድዋይፍሪ ትምህርት ክፍል በህፃናት

ጤና የ2ኛ ዓመት የማስትሬት ድግሪ ተመራቂ ተማሪ ነኝ፡፡ በአሁኑ ሰዓት በሞጣ ዙሪያ ከስድስት ወር በታች ልጅ ባላቸው እናቶች ላይ የጡት ብቻ ማጥባት ትግበራና ተዛማጅ ችግሮችን በማጥናት ላይ ነኝ፡፡

የጥናቱ ርዕስ፡- የጡት ብቻ የማጥባት ትግበራና ተዛማጅ ችግሮች ፣ ሞጣ ዙሪያ፣ አማራ ብሔራዊ ክልላዊ መንግስት፣ ኢትዮጵያ፣

2007 ዓ.ም፡፡

የጥናቱ ዓላማ፡-የጡት ብቻ የማጥባት ትግበራና እናቶች ጡት ብቻ እንዳያጠቡ የሚያደርገቸውን ችግሮች ማወቅ

ተሳታፊዎች፡- ከ6 ወር በታች ልጆች ያሏቸውና በቋሚነት የሚኖሩ እማወራዎች

የጎንዮሽ ጉዳት፡- በዚህ ጥናት መሳተፍ ምንም አይነት ጉዳት የለውም፡፡

ጥቅማ ጥቅም፡- በዚህ ጥናት መሳተፍ ምንም አይነት ገንዘብ አያስገኝም፡፡ ነገር ግን በዚህ ጥናት መሳተፍ ስለ ጡት ብቻ

ማጥባት እውቀት ያገኛሉ ወይም ያለዎትን እውቀት ያዳብራሉ፡፡

ስለዚህ የተወሰኑ ጥያቄዎችን ልጠይቅዎት እወዳለሁ፡፡ የእርስዎ በእውነት ላይ የተመሰረተ መልስ ለዚህ ጥናት መሳካት አስተዋፅኦ

ያደርጋል፡፡ እርስዎ የሚሰጡት መረጃ ከአጥኚውና ቃለመጠይቅ አድራጊው በስተቀር በማንኛውም መልኩ ለሌላ 3ኛ ወገን

ተላልፎ አይሰጥም፡፡ በሙሉ ፈቃደኝነት እንዲሳተፉ እየጠየቅሁ ያለመሳተፍ ወይም በማንኛውም ጊዜ ራስዎን ከጥናቱ የማግለል

ሙሉ መብት አለዎት፡፡ ማንኛውም ጥያቄ ካለዎት በሚከተለው አድራሻዬ ማግኘት ይችላሉ፡፡

ጥላሁን ተዋበ

ስ.ቁ.09 12 71 37 38

ኢ.ሜይል፡ tilahun.tewabe01@gmail.com

V: የስምምነት መግለጫ ፎርም - በአማርኛ

አዲስ አበባ ዩኒቨርሲቲ

ጤና ሳይንስ ኮሌጅ

ነርሲንግ ዲፓርትመንት

ድህረ ምረቃ ፕሮግራም

እኔ ስሜ ከዚህ በታች የተገለፀው፤ የዚህ ጥናት ዓላማ በደንብ የተብራራልኝ ሲሆን የጥናቱንም ዓላማ ተረድቻለሁ፡፡ በዚሁ ጥናት ላይ መሳተፍ በሙሉ ፈቃደኝነት ላይ የተመሰረተ መሆኑን በሚገባ የተረዳሁ ሲሆን በማንኛውም ጊዜ ከጥናቱ ራሴን የማግለል መብት እንዳለኝ አውቄአለሁ፡፡ ስለሆነም የምሰጠው መረጃ እስከተጠበቀ ድረስ በዚህ ጥናት ለመሳተፍ ተስማምቻለሁ፡፡ በዚህ ጥናት ለመሳተፍ ስምምነቴን ስገልፅ ለምጠየቀው ጥያቄ በእውነት ላይ የመሰረተ መልስ ለመስጠት የተስማማሁ መሆኔን አረጋግጣለሁ፡፡

የመረጃ ሰጪው ፊርማ ________________________ ቀን ________________________________

የአጥኚው ፊርማ ______________________________ቀን ________________________________

VI: መጠይቅ - አማርኛ ቅጽ

አዲስ አበባ ዩንቨርሲቲ የነርሲንግ እና የሚድዋይፈሪ ዲፓርትመንት

ይህ መጠይቅ የተዘጋጀው ጡት ብቻ የማጥባት ትግበራንና ተዛማጅ ችግሮችን በተመለከተ መረጃ ለማሰባሰብ ነው፡፡

ክፍል አንድ ፡- ሥነ- ህዝብ ፤ማህበራዊ እና ኢኮኖሚያዊ ጉዳዮችን በተመለከተ የተዘጋጁ ጥያቄዎች

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ይለፉ
101	የህፃን ፆታ	1. ወንድ 2. ሴት	
102	የህፃኑ/ኗ ዕድሜ (በወር)	------------ ወር	
103	የእርስዎ ዕድሜ ስንት ነዉ?	------------ ዓመት	
104	ሀይማኖትዎ ምንድን ነዉ?	1. ኦርቶዶክስ ክርስቲያን 2. ሙስሊም 3. ካቶሊክ 4. ፕሮቴስታንት 5. ሌላ (ይጠቀስ) -----	
105	ብሔርዎ ምንድን ነዉ?	1. አማራ 2. ኦሮሞ 3. ትግሬ 4. ሌላ (ይጠቀስ) ------	
106	የትምህርት ደረጃዎ?	1. ማንበብና መፃፍ የማትችል 2. ማንበብና መፃፍ የምትችል 3. አንደኛ ደረጃ (1 – 8ኛ ክፍል) 4. ከዘጠነኛ እስከ አስራሁለተኛ ክፍል 5. ሰርተፍኬት/ዲፕሎማ 6. ዲግሪና ከዚያ በላይ	
107	ሥራዎ ምንድን ነዉ?	1. የቤት እመቤት 2. የመንግስት ሰራተኛ 3. የግል ድርጅት ሠራተኛ 4. ነጋዴ 5. የቀን ሰራተኛ 6. ሌላ (ይጠቀስ)…………………..	
108	የጋብቻ ሁኔታዎ?	1. ያላገባች 2. ያገባች 3. ባሏ የሞተባት 4. የፈታች 5. ተለያይታ የምትኖር	
109	ያገቡ ወይም ተለያይተዉ የሚኖሩ ከሆነ፣ የባለቤትዎ የትምህርት ደረጃ?	1. ማንበብና መፃፍ የማይችል 2. ማንበብና መፃፍ የሚችል 3. አንደኛ ደረጃ (1-8ኛ ክፍል)	

		4. ከዘጠነኛ እስከ አስራ ሁለተኛ ክፍል 5. ሰርተፍኬት/ዲፕሎማ 6. ዲግሪና ከዚያ በላይ	
110	ያገቡ ወይም ተለያይተዉ የሚኖሩ ከሆነ፣ የባለቤትዎ ሥራ ምንድን ነዉ?	1. የመንግስት ሰራተኛ 2. የግል ድርጅት ሠራተኛ 3. ነጋዴ 4. የቀን ሰራተኛ 5. ሌላ (ይጠቀስ)…………………	
111	ከእርስዎ ጋር ከልጆችዎ እና ባለቤትዎ በተጨማሪ ማን አብሮ ይኖራል?	1. የእርስዎ እናት/አባት/ እህት/ ወንድም/ ዘመድ 2. የባለቤትዎ እናት/ አባት/ እህት/ወንድም/ዘመድ 3. ሌላ ማንም ሠዉ አብሮ አይኖርም	
112	የቤታችሁ አማካይ የወር ገቢ ስንት ነዉ?	-----------------ብር	
113	ሬዲዮ ወይም ቴሌቪዥን አላችሁ?	1. ሬዲዮ ብቻ 2. ቴሌቪዥን ብቻ 3. ሁለቱም አለን 4. ሁለቱም የለንም	

ክፍል ሁለት ፡- የእናቶችና ህፃናት ጤና አገልግሎትን በተመለከተ የተዘጋጁ ጥያቄዎች

ተ.ቁ	ጥያቄዎች	አማራጭ መልሶች	ይለፉ
201	ሥንት ልጆች አለዎት?	____________________________	
202	ይህ/ች ህፃን ሥንተኛ ልጅዎ ነው/ ናት?	1. የመጀመሪያየ ነዉ/ናት 2. 2ተኛ ልጄ ነዉ/ናት 3. 3ተኛ ልጄ ነዉ/ናት 4. 4ተኛ እና ከዚያ በላይ	የመጀመሪያዎ ከሆነ/ች ወደ ጥያቄ 204 ይለፉ
203	የመጀመሪያ ልጅዎ ካልሆነ/ች ከዚህ በፊት ከነበረዎት ልጅ ጋር ምን ያህል ጊዜ የዕድሜ ልዩነት አላቸዉ?	__________ ዓመት __________ወር	
204	ይህን/ችን ህፃን ነፍሰጡር እያሉ በጤና ተቋም የቅድመወሊድ ክትትል አድርገዉ ነበር?	1. አዎ 2. የለም	መልሱ የለም ከሆነ ወደ ጥያቄ 208 ይለፉ
205	የቅድመ ወሊድ ክትትል ጤና አገልግሎት አግኝተዉ ከሆነ፣ አገልግሎቱን ያገኙት የት ነበር?	1. ሆስፒታል 2. ጤና ጣቢያ 3. የግል ክሊኒክ	
206	ምን ያህል ጊዜ የቅድመ	1. አንድ ጊዜ	

	ወሊድ ክትትል አድርገው ነበር?	2. ሁለት ጊዜ 3. ሶስት ጊዜ 4. አራት ጊዜ እና ከዚያ በላይ	
207	በቅድመ ወሊድ ክትትል ወቅትዎ ስለ ጡት ማጥባት የምክር አገልግሎት ተሠጥተዉ ነበር?	1. አዎ 2. የለም	
208	ይህን/ችን ህፃን ሲወልዱ የት ነበር የወለዱ?	1. ሆስፒታል 2. ጤና ጣቢያ 3. የግል ክሊኒክ 4. ቤት ዉስጥ	
209	ህፃኑ/ኗ እንዴት ነበር የተወለደዉ/ችዉ	1. በብልት በኩል 2. በቀዶ ጥገና	
210	ከወለዱ በኋላ በ45 ቀን ጊዜ ዉስጥ የድህረ ወሊድ ክትትል አድርገዉ ነበር?	1. አዎ 2. የለም	መልሱየለ ም ከሆነወደ ጥያቄ301 ይለፉ
211	የድህረ ወሊድ ክትትል ካደረጉ አገልግሎቱን ያገኙት የት ነበር?	1. ሆስፒታል 2. ጤና ጣቢያ 3. የግል ክሊኒክ 4. ቤት ዉስጥ	
212	በዚያ የድህረ ወሊድ ክትትል ወቅትዎ ስለ ህፃኑ/ኗ የአመጋገብ ሁኔታ የምክር አገልግለት ተሰጥተዉ ነበር?	1. አዎ 2. የለም	
	ክፍል ሶስት ፡- ጡት ማጥባትን በተመለከተ የተዘጋጁ ጥያቄዎች		
301	ልጅዎን ጡት አጥብተዉ ያዉቃሉ?	1. አዎ 2. አጥብቼ አላዉቅም	
302	መልስዎ አዎ ከሆነ፣ እስከአሁን ድረስ እያጠቡ ነዉ?	1. አዎ 2. የለም ፣ አላጠባም	
303	የለም ካልሽ፣ምክንያቱ ይገለፅ	1.ስራ ስለምሄድ 2. ስለሚያመኝ 3. የጡት ወተቴ በቂ ስላልሆነ 4.ሌላ ካለ ይገለፅ	
304	እንደወለዱ ጡት ማጥባት የጀመሩት በስንት ጊዜ ዉስጥ ነበር?	1. ወዲያውኑ/አንድ ሠዓት ባልሞላ ጊዜ ዉስጥ 2. ከአንድ ሠዓት እስከ አንድ ቀን 3. ከአንድ ቀን በኋላ እስከ ሶስት ቀን 4. ከሶስት ቀን በኋላ	

305	እንደተወለደ በአንድ ሰዓታት ውስጥ ያላጠባሽበት ምክንያት ምንድን ነው	1. በቀዶ ጥገና ስለወለድኩት 2. ልጁ ስለታመመ 3. ተምሜ ስለነበር 4. ጡት ወተት ቶሎ ስላልመጣልኝ 5. ሌላ ከለ ይጠቀስ	
306	የመጀመሪያዉን የጡት ወተት (እንገር) ለህፃኑ/ኗ አጥብተሽ ነበር?	1. አዎ አጥብቻለሁ 2. የለም፣ አላጠባሁም	
307	የመጀመሪያዉን የጡት ወተት (እንገር) ለህፃኑ/ኗ ካላጠቡ ምክንያቱ ምንድን ነው?	1. ህፃን ሊጠባው ወይም ሊመገበው ስለማይችል 2. ለህፃን ጥሩ ስላልሆነ ወይም ስለሚጎዳ 3. መልኩ ቢጫ ስለሆነ እና ዝልግልግ ስለሆነ 4. ልማድ/ባህል ስለሆነ 5. ሌላ (ይጠቀስ)……………	
308	ህፃኑ/ኗ በተወለደ/ች በሶስት ቀን ጊዜ ዉስጥ የጡት ወተትዎ በአግባቡ መፍሰስ እስኪጀምር ምን ሌላ ነገር ተሰጥቶት/ቷት ነበር?	1. ከእናት ጡት ወተት ውጭ ሌላ ምንም ነገር አልተሰጠም 2. ውሃ 3. ቅቤ 4. የላም ወተት 5. የሚሚ ስኳር 6. ሌላ (ይጠቀስ)……………	
309	ጡት ከመስጠትሽ በፊት ለምን ነበር የሰጠሽው	1. ጡቴን አሞኝ ስለነበር 2. ልጁ ስለታመመ 3. ታምሜ ስለነበር 4. ጡት/ወተት ቶሎ ስላወጣልኝ 5.ባህል/ልምድ ስለሆነ 6. ሌላ ከለ ይጠቀስ	
310	ለልጅሽ ጡት ከመጀመርሽ በፊት አንድትሰጭው የመከረሽ ነበር	1) የራሴ ውሳኔ ነው 2) እናቴ 3) ጓደኞቼ 4)ሌላ ካለ ይጠቀስ	
311	በዚህ 7 ቀን ጊዜ ዉስጥ ህፃኑ/ኗ የሚመገበዉ/የምትመገበዉ ምን ነበር?	1.የእናት ጡት ወተት ብቻ 2.ከእናት ጡት ወተት በተጨማሪ ዉሃ ፤ሻይ፣ ጭማቂ፣ የሚሚ ስኳር/ጨዉ 3.የእናት ጡት ወተት እንዲሁም ለስላሳ ምግቦችን(የተፈጨድንች/ስጋ፤ፍራፍሬ፤ገንፎ፤ቅቤ፤እንቁላል)እና ፈሳሽ ምግቦችን (የላም/ዱቄት ወተት፣ ዉሃ ፤ሻይ፣ ጭማቂ፣ የሚሚ ስኳር/ጨዉ) 4.ለስላሳ ምግቦችን(የተፈጨ ድንች/ስጋ፤ፍራፍሬ፤ገንፎ፤ቅቤ፤እንቁላል)	

		እና ፈሳሽ ምግቦችን (የላም/ዱቄት ወተት፣ ዉሃ ፣ሻይ፣ ጭማቂ፣ የሚሟ ስኳር/ጨዉ)	
312	ለጥያቄ 307 መልሱ የእናት ጡት ወተት ብቻ ካልሆነ ምክንያቱ ምንድን ነው?	1. ጡቴ ስለደረቀብኝ 2. ጡት ብቻ መስጠት በቂ ስላልሆነ 3. ህጻኑ/ኗ ውሃ ስለሚጠማው/ማት 4. ከስራ ጋር ስለማይመቸኝ 5. ስለሚያመኝ/ስለሚደክመኝ 6. ጡቴን ስለሚያመኝ 7. ሌላ (ይጠቀስ)………………	
313	ይህን ውሳኔ ስትወስኚ ማንን አማክርሽ ነበር	1) ባለቤቴ 2) እናቴ 4) የጤና ባለሙያወች 5) የራሴ ውሳኔ ነው 6)የሀይማኖት አባቴ 7) ሌላ ካለ ይጠቀስ	
314	ስለ ጡት ብቻ ማጥባት ባለቤትሽ ምን አስተዋፆ አደረገልሽ	1)በምክር ይደግፈኛል 2)በገንዘብ ይረዳኛል 3)ምንም አይረዳኝም 4)ሌላ ከለ ይጠቀስ	
315	የሀይማኖት አባቶች እስከ ስድስት ወር ስለ ጡት ብቻ ማጥባት ምክር ሰጥተውሽ ያውቃሉ	1) አዎ 2)የለም	

ክፍል አራት ፡- ሥለ ጡት ማጥባት መረጃና ዕዉቀትን በተመለከተ የተዘጋጁ ጥያቄዎች

4.1. **ስለ ጡት ማጥባት መረጃና የመረጃ ምንጭ**

401	ሥለ ጡት ማጥባት ሰምተዉ ያዉቃሉ?	1. አዎ 2. የለም	
402	ሠምተዉ የሚያዉቁ ከሆነ ከየት ነዉ የሰሙት?	1. ከሬዲዮ 2. ከቴሌቪዥን 3. ከጤና ኤክስቴንሽን ባለሙያ 4. ከሌሎች የጤና ባለሙያዎች 5. ከማህበረሰብ በጎ መልዕከተኛ 6. ከቤተሰብ/ጓደኛ/ጎረቤት 7. ሌላ (ይጠቀስ) --------	

4.2፡- ***ሥለ ጡት ማጥባት ዕዉቀት***

ለሚጠየቁት ጥያቄዎች መስማማትዎን፣ አለመስማማትዎን ወይም ስለጉዳዩ የማያዉቁት መሆኑን ይግለፁ፡፡

403	ጡት ማጥባት ለህፃናት ጤንነት ይጠቅማል?	1. አዎ 2. አላዉቅም	
404	ጡት ማጥባት ለእናት ጤንነት ይጠቅማል?	1. አዎ 2. አላዉቅም	
405	ህፃን እንደተወለደ ወዲያዉኑ በአንድ ሠዓት ጊዜ ዉስጥ ጡት መጥባት ይኖርበታል?	1. አዎ 2. አላዉቅም	
406	የመጀመሪያዉ የጡት ወተት/ እንገር/ ለህፃኑ/ኗ መስጠት ይኖርበታል?	1. አዎ 2. አላዉቅም	
407	ህፃን ከተወለደ በኋላ ጡት መጥባት ከመጀመሩ በፊት ሌላ ምግብ ቢሰጠዉ ጥሩ ይሆናል?	1. አዎ 2. አላዉቅም	
408	ለህፃን ልጅ የእናት ጡት ወተት ብቻውን ምንም ዓይነት ዉሃ፣ ሌላ ፈሳሽ ነገር ወይም ምግብ ሳይጨመርበት ለመጀመሪያዎቹ 6 ወራት ያህል በቂ ነዉ?	1. አዎ 2. አላዉቅም	
409	ህፃን ልጅ 6ወር እንደሞላዉ ከእናት ጡት ወተት በተጨማሪ ሌላ ተጨማሪ ምግብ መጀመር ይኖርበታል? እንዲሁም 2 ዓመትና ከዚያ በላይ እስኪሆነዉ ድረስ የእናቱን ጡት መጥባት ይኖርበታል?	1. አዎ 2. አላዉቅም	

ክፍል 5 ፡ ጡት ብቻ ለማጥባት መሰናክል የሚሆኑ ችግሮች

501	የጡት ችግር ወይም ህመም ገጥሞሽ ያውቃል ?	1) አዎ 2)የለም	
502	አዎ ከሆነ መልስሽ፣ከተጠቀሱት የትኛው ሊሆን ይችላል	1) የመቁሰል 2) እብጠት 3) የመሰነጣቅ/መድረቅ 4) ሌላ ካለ ይጠቀስ	
503	ቸግር ሲገጥምሽ እነዴት ታደርጊያለሽ?	1) ወተቱን አፈሰዋለሁ 2) ወደ ጤና ተቋም እሄዳለሁ 3) በባህል መድሃኒት አሸዋለሁ 4) ሌላ ካለ ይጠቀስ	
504	በመስሪያ ቤት/በማህበረሰባቹህ የጡት ማጥባትን ይደግፋሉ/ያበረታታሉ	1)አዎ 2)የለም	

505	አዎ ካልሽ ልትጠቅሽልኝ ትችች	--------------------------------	
506	እናቶች ጡት ብቻ የማያጠቡበት ምክንያት ምን ይመስልሻል ?	1) መረጃ ስለሌላቸው 2) ስራ ስለሚበዛባቸው 3) የጡት ወተቱ በቂ ስላልሆነ 4) ባህል ና ተለምዶ ስለሆነ 5) ሌላ ካለ ይጠቀስ	
507	በአካባቢያችሁ ጡት ብቻ እስከ ስድስት ወር እንዳታጠቢ የሚያደርግ ባህል ወይምተለምዶ አለ	1)አለ 2)የለም	
508	አለ ካልሽ ልትጠቅሽልኝ ትችያለሽ	______________________________	

VII: Map of the Study Area

VIII: Declaration

I the undersigned declare that this MSc. thesis is my original work and it has not been presented for a degree in any other university. All source materials used for the thesis have been duly acknowledged.

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Signature ______________________Date_____________________________