Addis Ababa University
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Exclusive breast feeding Practices and Associated factors among HIV positive women in public health facilities of Adama town, Ethiopia

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A FINAL THESIS SUBMITTED TO GRADUATE STUDIES AS PARTIAL FULLFILMENT FOR THE REQUIREMENTS FOR DEGREE OF MASTERS IN PUBLIC HEALTH.

May, 2016

ADDIS ABABA, ETHIOPIA

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May, 2016

ADDIS ABABA, ETHIOPIA

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Lists of Acronyms

AAU	ADDIS ABABA UNIVERSITY
AFASS	ACCEPTABLE, FEASIBLE, AFFORDABLE, SUSTAINABLE AND SAFE
AIDS	ACQUIRED IMMUNI DEFICIENCY SYNDROME
ANC	ANTENATAL CARE
ARV	ANTIRETROVIRAL
BFHI	BABY FRIENDLY HOSPITAL INITIATIVE
DNA-PCR	DEOXYRIBONUCLEIC ACID-POLYMERASE CHAIN REACTION
EBF	EXCLUSIVE BREAST FEEDING
ERF	EXCLUSIVE REPLACEMENT FEEDING
EDHS	ETHIOPIAN DEMOGRAPHIC AND HEALTH SURVEY
HIV	HUMAN IMMUNODEFICIENCY VIRUS
MSG	MOTHER SUPPORT GROUP
MTCT	MOTHER-TO-CHILD TRANSMISSION
NVP	NEVIRAPINE
PCR	POLYMERASE CHAIN REACTION
PMTCT	PREVENTION OF MOTHER TO CHILD TRANSMISSION OF HIV
TBA	TRADITIONAL BIRTH ATTENDANT
WHO	WORLD HEALTH ORGANIZATION
UNCEF	UNITED NATIONS CHILDREN'S FUND
UNAIDS	UNITED NATIONS PROGRAMME ON HIV/AIDS

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Acknowledgement

I would like to express my appreciation to my supervisor, Dr Assefa Seme for his valuable guidance, advice and constructive criticism throughout this study.

I am grateful to the AAU, School of Public health for giving me this chance, and Oromia Regional Health Bureau, Adama town health office and Health facilities administrations of Adama Hospital, Adama Health Center and Geda Health Centre for allowing me to collect data for this study.

Last, but not least, many thanks to my sister. To her I say, thanks for her moral, spiritual and physical support and continuous encouragement throughout my studies. You remain to be my source of inspiration.

Abstract

Background: Despite the benefit and promotion of exclusive breast feeding, the rate of excusive breast feeding is still low in Ethiopia. Thus, this study will assess factors that lead to non-adherence to exclusive breast feeding among HIV positive mothers.

Objective: the main objective of this study was to assess the prevalence of exclusive breast feeding and factors that influence its practices among HIV positive mothers of infants aged 6-24 months old who are on chronic HIV care in selected health facilities of Adama town.

Method: Institution based cross-sectional study was conducted among 193 HIV positive women with infant aged 6-24months in three health facilities (Adama hospital, Geda and Adama health centers) of Adama town in Ethiopia. Data was collected using structured and pre-tested questionnaires. Four data collectors and three supervisors were trained and involved in data collection process. Data were entered and analyzed using SPSS version 20 statistical software package. Univariate analyses were done to determine various proportions and bivariate analysis was conducted to measure the existence and the strength of an association between the dependent and the independent variables. Level of significance was set at a p value of ≤ 0.05. Variables that had less than **0.05** level of significance were further analyzed in multiple logistic regression models to control the potential confounding variables.

Results: In this study the prevalence of exclusive breast feeding, exclusive replacement feeding and mixed feeding and factors associated with exclusive breast feeding was determined. The result showed that exclusive breastfeeding, exclusive replacement feeding, and mixed feeding were 84.7%, 3.2 %, and 6.3 %, respectively. Exclusive breast feeding was more practiced by mothers who had adequate knowledge on exclusive breast feeding (Adjusted OR = **6.84(2.54, 18.44)**), mothers who disclosed their HIV status to their husbands/spouses (**Adjusted** OR= **3.80(1.28, 11.28)**), and mothers who attained below primary level of education (**Adjusted OR = 3.89(1.41, 10.70)**).

Conclusion and Recommendation: Despite more than three-quarters mothers who adhere to exclusive breastfeeding, the rate is still not satisfactory. More extensive and comprehensive approach of infant feeding counseling should be put in place in order to increase exclusive

breastfeeding by HIV positive mothers. Moreover, both partners should be counseled properly on the issue to get the support from their male partners.

Keywords: Exclusive breast feeding, replacement feeding, mixed feeding, HIV positive women

INTRODUCTION

Exclusive Breast Feeding (EBF) is defined by WHO as giving the infant no other food or drink, not even water, apart from breast milk, expressed with exception of drops or syrups consisting of vitamins, mineral supplements or prescribed medicine[1, 2]. When infants breast feed exclusively their immune system stimulated, and protect them from diseases like diarrhea and acute respiratory infections [3-5]. Additionally, it can protect infant from hospitalizations and death. It also associated with better development scores and growth parameters [6, 7]. Moreover, exclusive breast feeding is associated with a lower risk of HIV transmission from mother to child than mixed feeding [8, 9]. Similarly, breast milk can contribute to preventing postnatal HIV-1 transmission by reducing HIV-1 uptake, transport through and replication in the intestinal mucosa [10-12]

The rate of globally exclusive breastfeeding among children under six months of age in the period of 2005–2012 was 38%. It was higher in the South-East Asia Region (47%) and lower in the European Region (25%), with intermediate values for the African and Eastern Mediterranean regions (35% each) and the Region of the Americas (30%)[13]. In developing countries, the prevalence of exclusive breastfeeding among infants younger than six months in 2010 was 39%[14].

According to Ethiopian Demographic and Health Survey 2011, 52% of infants aged below 6 months regardless of their HIV status were exclusively breastfed in Ethiopia [15].This rate show some improvement from the previous Ethiopian Demographic and Health Survey of 2005 which indicated that 33.3% were exclusively breastfed, still the rates are low with observed variation within and between regions [15, 16]

Statement of the problem

Various studies reported that decreased HIV transmission in the first six months of infant life was associated with exclusive breastfeeding (EBF) compared to mixed feeding[17-19].Studies Conducted in developing countries found that the risk of HIV transmission from mother to child is higher among the women who practice mixed feeding than exclusively breast fed [9, 20]. Besides, non-breast feeding was associated with increased risk of infant morbidity, mortality and hospitalization than breast feed infants. In study conducted on infant feeding patterns and risks of

death and hospitalization in the first half of infancy reported that mixed feeding and non-breastfeeding were associated with increased infant morbidity and mortality[21]. Another studies also reported that the risk of diarrheal disease and death was higher among both HIV-exposed infants and infants of HIV uninfected mothers who practiced mixed and replacement breastfeeding than those exclusively breast feed [6, 22]. Similarly, study conducted in three African countries revealed that non breastfeeding was associated with increased risk of morbidity among HIV- exposed infants during the first 6 months of life compared with those of infants who were exclusively breastfed[23] . A systematic literature review and meta-analysis reported that pneumonia mortality was higher among not breastfed compared to exclusively breastfed infants under 5 months of age[24]. Similarly, study in Kenya showed that the risk of pneumonia and pneumonia-related hospitalization increased among non-breast feed HIV exposed infants[25].In studies conducted in Africa, the risk of morbidity and hospital admission among HIV-exposed infants was higher among non-breast feeding infants than exclusive breast feeding infants [7, 26, 27].

The World Health Organization and UNICEF recommendations EBF for the first six months of life, but still EBF rates remain low throughout the world. Globally, it was estimated that the prevalence of exclusive breastfeeding was 38% [13].According to Ethiopian Demographic and Health survey of 2011, the prevalence of exclusive breast feeding regardless of HIV status were 52%. The rates were reported being high at 70.1% from birth to one month, decreasing to 55.3% at age 2 to 3 months and 31.8% at ages 4 to 5 months with a median duration of EBF 4.2 months at national level [1]. Study in Addis Ababa showed that exclusive breast feeding rates among HIV positive mothers was 73 %[28]. On the other hand, another study conducted in this area reported the prevalence of EBF as 30.6%[29].

There are number of factors that have been reported to affect EBF among HIV positive women in Ethiopia, some of these are inadequate ANC follow up, Poor infant feeding counseling, family and social pressures, negative attitude toward EBF, husband imposition, and maternal and infant illnesses[28, 29].

The World Health Organization and Ethiopian national guideline encourages HIV positive mother to exclusively breastfeed while the infant receives prophylaxis for the first six months of life and continuation of breastfeeding up to 12 months and is stopped gradually ensuring that

complementary feeding is introduced at sixth month [30, 31]. However, the rates of EBF among HIV positive mothers were low[29]. In Adama city administration the prevalence and factors related to EBF among HIV positive mothers are not known. Thus, this study will generate information for policy makers on PMTCT program and Infant and young child feeding.

Significance of the study

Most studies conducted in Ethiopia in this area were among general population and not focused on HIV positive women. The few studies conducted among HIV positive mothers were done in Addis Ababa which is the capital of Ethiopia. In Adama town, no study has been documented regarding the prevalence and factors associated to exclusive breastfeeding among HIV positive mothers. Thus, this study intends to generate new information in this area by assessing factors affecting EBF practice among HIV positive mothers. The findings of this study are expected to inform regional policy makers in the development of appropriate interventions or in the promotion of existing interventions to promote exclusive breastfeeding among HIV positive women.

LITERATURE REVIEW

Exclusive breast feeding

Even though WHO and UNCEF recommend Exclusive Breast Feeding for the first six months, the rate remains low throughout the world[1]. Globally 38% of children fewer than six months of age were exclusively breastfed in the period of 2005–2012. This rate was higher in the South-East Asia Region (47%) and lower in the European Region (25%), with intermediate values for the African and Eastern Mediterranean regions (35% each) and the Region of the Americas (30%) [13]. In developing countries, 39% of infants younger than six months were exclusive breastfeeding in 2010[14]

Study conducted in South Africa found that only 25% of mothers exclusively breastfed where as 75% of women used formula or mixed feeding during the first 6 months [32]. Khanal et el in their study reports that the prevalence of exclusive breastfeeding declined with increasing infant age, from 68.0% at less than one month to 24.9% at five months [33]. Another study which was conducted in Nigeria and Tanzania reported the rate of EBF among infants younger than 6 months of age was 16.4% and 24.1% respectively [34, 35]. In Uganda, 31.5% of children less than six months were exclusively breastfeeding and the rest were mixed feeding [36].

In Ethiopia, exclusive breastfeeding for the first six months of infant's life is not widely practiced, the national rate was 52%, regardless of mother's HIV status [15]. There is observed prominent decline of EBF as the age of infant increases, the rates are 70.1% from birth to one month, 55.3% at 2 to 3 months and 31.8% at 4 to 5 months with median duration of 2.4 months at national level [15]. Additionally, Studies conducted in district of Debre Berhan and Addis Ababa, Ethiopia revealed that the rate of EBF in infants aged less than six months was 68.6% and 29.3% respectively[37, 38].

EBF among HIV positive women

The rate of EBF among HIV positive women were relatively high when compared to HIV negative women [36]. Studies in Kenya and Tanzania reported that the rate of EBF among HIV positive women's infants younger than six month as 80.4% and 77% respectively [39, 40]. In contrary, Fadnes et el in their study reported that exclusive breastfeeding of infants under the age of 6 months was less practiced among the HIV-positive mothers than in the general population.

Besides, HIV positive mothers were reported to give their infants pre-lacteal feeds which included non- human milk compared to HIV negative mothers [41]. In Ethiopia, Studies conducted in Addis Ababa among HIV positive mothers showed the prevalence of exclusive breast feeding as 30.6 % and 70.1% respectively[28, 29]

Recommended infant feeding practices of HV positive women

The WHO and UNCIF recommends HIV exposed infants either exclusive breastfeeding or replacement feeding. These options are explained below:

Exclusive breastfeeding of HIV exposed infant: is to only breast-feeding infants for the first 6 months of life and introducing appropriate complementary food after 6 months of life, and to continue breast feeding for the first 12 months of life. Additionally, upon reaching 12 months, if child is not HIV-infected or of unknown HIV status breastfeeding need to be gradually stopped.[30].

Replacement feeding: is feeding a child who is not receiving any breast milk with a diet that provides all the nutrients the child needs until the child is fully fed on family food. Replacement feeding is the only effective way to prevent mother-to-child transmission of HIV after birth. However, It is only recommended if it is acceptable, feasible, affordable, sustainable and safe (AFASS).Nonetheless, when AFASS criteria cannot be met, mothers are advised to exclusively breastfeed and avoid mixed feeding[30].

Factors influencing EBF

After searching various studies conducted on breast feeding practices the following factors that hinder exclusive breast feeding were identified.

Marital status of the mother

In study conducted in Ethiopia reported that Women who are not married were two times more likely to breast feed their child exclusively than those married[42]. Similar another study found that Non Exclusive Breast Feeding were 2.4 times higher among children of currently unmarried mothers compared with married mothers[43]. Study in Tanzania reported that single mothers had less odds to practice EBF up to six months then married/cohabiting mothers [44]

Occupational status of the mother

Mother's occupational status also identified as factors that influence EBF among HIV positive women. Varies studies found that unemployed mothers were more likely to breast feed exclusively than employed mother [37, 45-50]. Another study reported that mother who do not work away from home were more likely Exclusive breast feed their infants than those who worked outside the home[51]. Additionally, Study in Tanzania showed that mothers fail to practice exclusive breastfeeding due to the fact that they go to work to supplement family income before their infant reaches six months[52]. Senarath et al also reported that continuation of breastfeeding at the end of the first year was significantly lower in non-working mothers compared to working mothers [53]. Moreover, mothers who were engaged in different jobs like daily laborer, house servant and pottery were less likely to EBF compared to housewife mothers[50]. Mothers whose maternity leave was between seven and 12 months breast fed for a longer duration compared to mothers who had less than six months of maternity leave[54].

Economic factors

Several studies reported that the rate of exclusive breast feeding was high among mothers whose socio-economic status was low [29, 38, 39, 55]. However, Studies in Ethiopia and Kenya found that low socio-economic status was the barrier to exclusive breastfeeding in the first 6 months and the risk of premature cessation of exclusive breastfeeding was lower among rich and middle level households[34, 42, 56]. Similarly, Lack of funds to purchase infant formula feeds was identified as reasons for mothers to opt for mixed breastfeeding rather than exclusive replacement feeding [57]. Ochuma et al reports that despite the knowledge that exclusive replacement feeding can prevent infants from acquiring HIV, due to the high price of infant formula, it is difficult to practice exclusive replacement feeding since sustaining supplies is the challenge as a result of the low income to most mothers in populations therefore, mothers opt to breastfeed though not exclusively [58].

Educational Status of the mother

There are mixed findings about the relationship between exclusive breast feeding and maternal educational status. Various studies reported that mothers who didn't attain formal education and had lower educational attainments were found to delay the initiation of breast feeding as well as

less adhere to Exclusive breast feeding[39, 59, 60]. On the other hand, Studies conducted in Ethiopia and Ireland showed that highly educated mothers fail to exclusively breast feed their children [50, 54]. Similarly, a study done in the Southern Ethiopia revealed that women who attend primary and above education were found to delay the initiation of breastfeeding practices[61].

Residence

Similarly, there was mixed findings about the relationship between exclusive breast feeding and maternal place of residence. Setegn and his colleagues reported that mothers who live in urban area was associated with timely initiation of breastfeeding[62]. However, study conducted in Malaysia identified that Exclusive breastfeeding was positively associated with rural residence[47].

Age of the mother

Many studies found that advanced maternal age was associated with higher rate of exclusive breast feeding than younger maternal age [35, 37, 50, 54]. Similarly, Della et al report that duration of exclusive breastfeeding increases as the age of the mother increases thus women with older age are more experienced and can practice exclusive breastfeeding compared to the ones with younger age[63]. Furthermore, Thairu et al in their study found that, it is difficult for adolescent mothers to decide on her own how to feed the baby[64]. Whereas, study conducted in South Africa reported that older women was more practicing formula feeding than Exclusive breast feeding[65].

ANC and PNC follow up

According to Study conducted in Ethiopia and Nigeria, mothers who attended four or more ANC counseling sessions were more likely to adhere to exclusive breast feeding [28, 34, 66]. Similarly , mothers who were not provided with antenatal counseling on EBF duration ANC were early stop EBF compared to those who were provided counseling on EBF during ANC [50].Moreover, Mothers who received breast feeding counseling during ANC and PNC were timely initiate breast feeding as well as beast feed their infants exclusively for the first 6 months of life[38, 46, 62, 67]. Besides, Bergman and colleagues identified that women who received at

least four visits by a Mentor Mother during pregnancy decreased the risk of discontinuing exclusive breastfeeding prematurely[48].

Place of delivery

Exclusive Breast Feeding was higher among infants born in health-care facilities than those born at home [53, 67-69]. Furthermore, according to a study done in Guatemala, place of delivery is associated with early initiation of breast feeding; that is mothers who gave birth at health facility initiate breast feeding early [51]. The role of Baby Friendly Hospital Initiation (BFHI) was found that there was increased duration of exclusive breast feeding of up to 75% from mothers who deliver at BFHI facility as compared to 35% from non BFHI facility [70]. Another study which was done in Ghana reports that delivery in maternity homes, private clinics, at home, or with Traditional Birth Attendant (TBA) causes a risk for not practicing exclusively breastfeeding within the first 6 months of life as opposed to delivering in government health facilities[71]. Study conducted in Nepal, however, revealed that women who deliver at home were more likely to Exclusively Breast Feed their infants than the others[72].

Mode of delivery

Various studies identified that the rate of exclusive breast feeding was higher among mothers who gave birth through vagina [38, 39, 50, 60, 67, 73, 74]. Similarly, Mothers who deliver by CS were more likely to practice exclusive replacement feeding than vaginal delivery [75]. Furthermore, another study reported that, emergency and elective caesarean deliveries are associated with a decreased rate of exclusive breastfeeding compared with vaginal delivery[76]. On the other side, study conducted in South Africa among HIV positive women found that mixed feeding was more practiced by women who delivered through vagina[65].

Maternal and Infant factor

Studies have reported that maternal and infant illness as one of the predictors of exclusive breastfeeding. In study done in Ethiopia, Mothers whose infant's ill were more likely to practice mixed feeding than those whose infant was not ill[75]. Another study reported that maternal illness is 74% less likely to adhere to EBF than those who had no illness [28]. Besides, Doherty et al showed that mothers who had breast health problems were associated with early cessation

of breastfeeding[55]. Moreover, study in southwest Ethiopia reported that majority of mother who had painful breastfeeding experience were initiated breastfeeding later than one hour after delivery [59].

Exclusive breastfeeding was associated with women individual behavior. Study in Malaysia showed that non-smoking mothers was positively associated with exclusive breastfeeding[47]. Added to this Mgongo et al reported that mothers who drank alcohol were less likely to practice EBF up to six months[77].

Knowledge of mother

Many studies conducted in different countries revealed that mother who had knowledge on the duration and advantages of exclusive breast feeding and prevention of mother to child transmission were more exclusive breast feed their infant's than those who didn't[35, 43, 46, 61, 66, 78]. It is further reported that those women who got knowledge from health workers on infant feeding thought adherence to exclusive breastfeeding guideline reduce chance of transmitting HIV to the infant while others were reported to believe that breastfeeding always leads to HIV transmission to an infant [79]. On the other hand, Rendani et al in their study reported that mothers who had higher knowledge on HIV transmission through breastfeeding were associated with formula feeding[65].

Health workers

Health workers had an important role in counseling and assisting women to adhere to the recommended infant feeding, and those mothers who received breast feeding counseling more likely breast feed their children exclusively [80-83]. Similarly, Study in Ethiopia and Bolivia showed that women who had received Breast feeding information from health care personnel before birth or on the maternity ward breastfed exclusively for a longer duration and avoided pre lacteal food to a greater extent[61, 84]. However, another study reported that lack of inadequate support from health workers which result in women to change from their intended feeding option as a challenge faced by HIV positive women in sustaining exclusive breastfeeding [85].

Disclosure of HIV status

WHO reported that HIV status disclosure to sexual partner is associated with other positive outcome including, acceptance, kindness, strengthening of relationship and decreased anxiety and depression [86]. Moreover, those mothers who disclose their HIV status to their spouses were exclusively breast feed and less likely to practice MF than those who didn't [52, 69, 75, 82, 87, 88]. Additionally, mothers who disclose their HIV status to their families like father, mother and grandmother were supported to adhere to the recommended feeding option [40, 66, 81]. Besides, Fear of reported stigma and discrimination affects HIV-positive mothers to disclose their HIV-positive and this forced mothers to practicing Mixed feeding [52, 88].

Family opposition

Study conducted in Ethiopia and Nigeria reported family opposition as one factor that influence on adherence to Exclusive breast feeding [28, 87]. Family pressure forced women to initiate extra foods and drinks as early as one month and result in mixed feeding [81]. Similarly, another study reports that family members influence women to introduce other liquids and to practice mixed feeding, particularly for young mothers [89]. Mothers-in-law had negative attitude against the recommended breast feeding for HIV infected mothers which is exclusive replacement feeding and exclusive breastfeeding and expect their daughter –in- law to breastfeed in a traditional manner.[90].

Conceptual framework

The conceptual framework of study was constructed after reviewing different literatures.

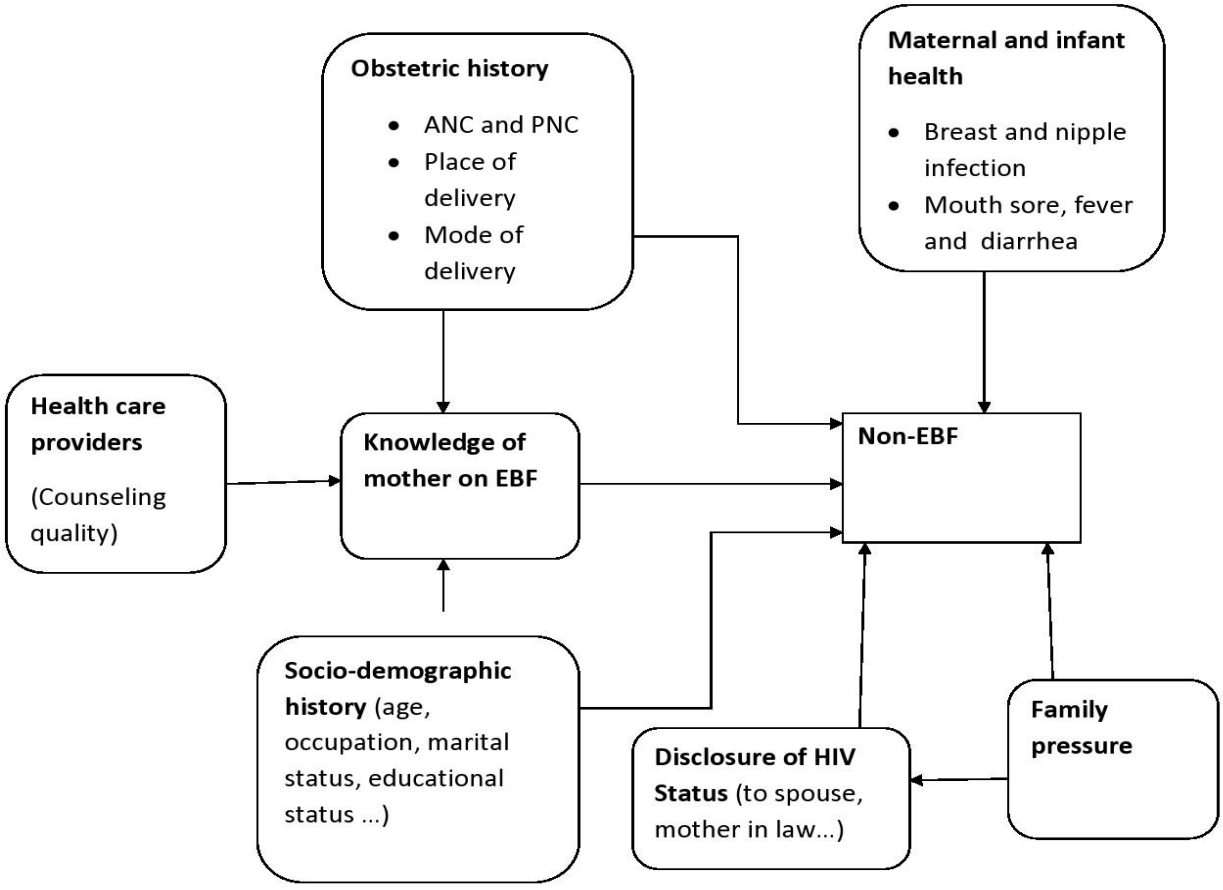

Figure 1 Conceptual framework on factors affecting EBF among HIV positive mothers

OBJECTIVES

General Objective

To assess the prevalence of exclusive breast feeding and to identify factors that influence EBF among HIV positive women with infants aged 6-24 months old who are on Chronic HIV care in government facilities of Adama town, Ethiopia.

Specific Objectives

- To determine the prevalence of exclusive breastfeeding, among HIV positive women with infants aged 6-24 months old who are on Chronic HIV care in government facilities of Adama town, Ethiopia.
- To determine factors that influence exclusive breastfeeding among HIV positive women with infants aged 6-24 months old who are on Chronic HIV care in government facilities of Adama town, Ethiopia.

METHODS

Study area and period

The study was conducted in three public health facilities of Adama town, Oromia Regional State, Ethiopia from March 10 to May 10/ 2015. Adama town has a total of 220,212 populations according to National Population and Housing Census of Ethiopia, 2007[91]. At the time of the study, the city had three hospitals (one public and two private hospitals), four health centers (three public and one NGO) and 79 clinics (24 primary, 51 medium and four specialty clinics). Of these all three hospitals, four health centers and one clinic were providing ART and PMTCT services. For this study, only government facilities were selected because government health facilities have high ART attendants. One government hospitals (Adama hospital) and two government health centers (Adama and Geda health centers) that provided ART and PMTCT services were purposively selected based on the number of their client flow.

Study design

Facility based cross-sectional survey was conducted among HIV positive women with infants aged 6-24 months old who are on Chronic HIV care in three selected government health facilities of Adama town namely: Adama and Geda Health centers; and Adama hospital.

Source and study population

The source of populations were all reproductive age group HIV positive mothers with infants aged 6–24 months in health facilities of Adama town who are on Chronic HIV care.

The study populations were reproductive age group HIV positive mothers with infants aged 6–24 months at the time of the study who are on Chronic HIV care at three Health facilities that fulfill the inclusion criteria**.**

Inclusion criteria: All reproductive age group HIV positive mothers having infants aged 6-24 months and Voluntary to participate in the study.

Exclusion criteria: Sick reproductive age group HIV positive mothers having infants aged 6-24 months and reproductive age group HIV positive mothers having infants aged 6-24 months with very sick children

Sampling procedures

There were four public health facilities that provided chronic HIV care and had MSG in Adama town namely Adama hospital, Adama health center, Geda health center and Boku Shenen health center. Of these three health facilities (Adama hospital, and Adama and Geda health centers) were purposively selected based on the size of their client flow in consultation with Adama town health office. Convenient sampling technique was used to select study participants; which mean that all reproductive age group HIV positive mothers with infants aged 6-24 months who were on Chronic HIV care were eligible to participate in the study and recruitment continued until the required sample was obtained.

According to quick assessment done before proposal writing, the total number of HIV positive mothers with infants aged 6-24 months in three health facilities were 370(170 Adama Hospital, 130 Adam health center and 70 Geda health center)

Sample size determination

The sample size was determined on the assumption of a prevalence rate 30.6%[75] for with 95% confidence level, 5% precision and a non-response rate of 10%. (Where n is desired sample size, Z is value of standard normal variable at 95% confidence interval and, p is prevalence of EBF which is 30.6% and d is marginal error which is 5%).

$$n = \frac{Z^2 \alpha/2\ P\ (1-P)}{d^2} = \frac{(1.96)^2 * 0.306 * 0.694}{(0.05)^2}$$

Therefore the value of n=328

Since the total numbers of HIV positive mothers with infants aged 6–24 months in the three health facilities of Adama city administration attending ANC and ART clinics less than <10, 000, (N= 370) using correction formula for finite population:

$$nf = \frac{n}{1+\frac{n}{N}} \qquad nf = \frac{328}{1+\frac{326}{370}} = 175$$

And adding 10% contingency for non-respondents (18), the final sample size become nf= 193

Where ‘N’ is the total HIV positive mothers with infants aged 6–24 months in the three health facilities of Adama town attending ANC and ART clinics and ‘nf’ is the final corrected sample size.

Data collection procedures

Data were collected using a structured questionnaire to obtain all of the required information. The questioners were adapted from similar studies done before[29, 92] and reviewing relevant literature to the problem under study to include all the possible variables that address the objective of the study. These questionnaires were developed in English thereafter translated into Amharic for easy use since the majority of the target population speaks Amharic.

Four nurses for data collection and three supervisors (health officers) were recruited and participated throughout the data collection. Data collectors and the supervisors were trained for one day by the principal investigator on the study instrument, consent form, how to interview and data collection procedure. Moreover, the principal investigator and the supervisors checked the collected data for completeness on daily basis and corrective measures were taken accordingly.

The questionnaire for data collection was pre tested at Boku shenen Health Centre in Adama city where the study was not conducted. The pretesting was done to ensure that questions are clear and allow gathering of information needed for the study. The questions which showed ambiguity during pre-testing was revisited and modified as required.

Data collection and data quality control

Information from respondents was collected using the questionnaire. Mothers were asked for their consent to participate in the study. Upon agreeing to participate in the study, data collectors interviewed mothers on current and previous (recalled) infant feeding practices and factors influence EBF. A total of 193 women were interviewed; where each interview took about 10 to 15 minutes depending on mother’s speed of replying and calmness of the infant.

The quality of the data was assured by using validated questionnaire which was previously developed and used by another researcher on similar topic and was also pre-tested. The

questionnaire was prepared in English and translated to Amharic since the majority of populations of the study speak Amharic.

Variables in the study

Dependent variable

Exclusive breastfeeding was the dependent variable and was measured as a proportion of mothers who reported breastfeeding their infants exclusively for the first six months of life.

Independent variables

The independent variables in this study were socio demographic characteristics like age, education level, and place of residence, marital status, parity, monthly income and occupation of the mothers. Other variables included were knowledge of mothers on exclusive breast feeding, place and mode of delivery, beliefs, perception, ANC follow up, maternal and child illness and disclosure of HIV status.

Operational definitions

Exclusive Breastfeeding: Giving infant breast milk only and prescribed medicine, vitamin/mineral drops, syrup.

Exclusive Replacement Feeding: Giving an infant who is not receiving any breast milk a nutritionally adequate diet until the age at which the child can be fully fed on family food

Mixed Feeding: Giving the baby some breast milk and extra foods and drinks.

Pre lacteal feeding: giving any foods or drinks for infant before they start breastfeeding.

HIV Exposed Infants: Are infants who were born from HIV infected mothers

Data analysis procedures

After data collection, each questionnaire was checked for completeness and code was given before data entry and then data were entered, cleaned (explored) for outliers, missed values and missed variables and analyzed using SPSS version 20 statistical packages. Univariate analyses were done to determine various proportions including: the proportions of HIV positive mothers

who practiced exclusive breast feeding, mixed feeding, replacement feeding and other types of infant feeding. And then bivariate analysis was done to measure the existence and the strength of an association between the dependent variable which is exclusive breastfeeding and the independent variables. Variables who had less than **0.05** level of significance was further analyzed in multiple logistic regression model to control the potential confounding variables. Additionally, Variables that were well known predictors of exclusive breastfeeding, such as maternal breast feeding problem and mode of delivery were considered in the multivariate analysis, regardless of the cut-off point for p-value.

Knowledge on EBF was measured with six questions which were adapted from previous similar unpublished thesis reports[92]. Mother who could answer more than four questions correctly were categorized as having good knowledge on EBF while those who could not answer more than four questions were categorized as having poor knowledge.

Ethical consideration

The research was approved by Ethical Review Committee of School of Public Health, Addis Ababa University, and letter of permission was obtained from Oromia Regional Health Bureau, Adama city Administration health office and the three health facilities. Verbal and written consents were obtained from the study subjects after explaining the study objectives and procedures and their right to refuse to participate in the study any time they want to. For this purpose, a one-page consent letter was attached to the cover-page of each questionnaire stating about the general purpose of the study and issues of confidentiality which was discussed by data collectors before proceeding with the interview.

Dissemination of results

The results of this study will be presented to Addis Ababa University, School of Public Health. It will also be communicated to Health facilities, Adama City Administration Health Office, ORHB and other concerned bodies through report. Furthermore, efforts will be made to publish the findings on national and international peer reviewed journals.

RESULTS

A total of 193 HIV positive mothers with infants aged 6 – 24 months attending ART and PMTCT clinics in the three health facilities of Adama town were interviewed. From the total of 193 HIV positive women with infants aged 6–24 months recruited, 190 participants were responded actively making the response rate of 98.4%. Of the 190 respondents, 87 (46%) were from Adama Hospital, 67 (35%) from Adama Health Centre and 36 (19%) from Geda Health Centre.

Socio-demographic characteristic of the study population

The age range of the respondents was 20 to 40 years, with a mean ±SD age of 28.8 ±4.09. Among these 164 (86.3%) were married, and 26 (13.7%) were single (never married). The majority (90%) of the participants were residing in urban settings. Over half (61.1%) were Orthodox Christians followed by protestant (18.4%), Muslim 31 (16.3%) and Others 8 (4.2%). About two-fifths (42.6%) of respondents were ethnic Oromo, 39.5% Amhara, 6.8% Tigre and 11.1% were from other ethnic groups. Most of participants' educational status were below primary school 140 (73.7 %) and 50 (26.3%) had finished Secondary school and above. With regard to the participants job status, majority 140 (73.7%) were housewives, 23(12.1%) employed, 15(7.9%) daily-laborer, and the remaining 12(6.3%) were others. A monthly household income of <500 per month was reported by 76 (40%) of the respondents. Table 1 shows distribution of socio- demographic characteristics of HIV positive women with 6-24 months old infants in selected health facilities in Adama town.

Table 1: Socio- demographic characteristics of HIV positive women with 6-24 months old infants in selected health facilities in Adama town, May 2016

Variables	Response (n=190)	Percentage of respondents
Name of Health facilities		
Adama Hospital	87	45.8
Adama HC	67	35.3
Geda HC	36	18.9
Age		
15 to 24	27	14.2
25 to 34	145	76.3
35 to 49	18	9.5
Place of residence		
Rural	19	10.0
Urban	171	90.0
Marital status		
Single	26	13.7
Married	164	86.3
Education		
Below primary school	140	73.7
Secondary and above	50	26.3
Religion		
Orthodox	116	61.1
Protestant	35	18.4
Muslim	31	16.3
Others	8	4.2
Ethnicity		
Oromo	81	42.6
Amhara	75	39.5
Tigre	13	6.8
Others	21	11.1

Occupation		
House wife	140	73.7
Employee	23	12.1
Daily Laborer	15	7.9
Others	12	6.3
Monthly household Income		
<500	76	40.0
500 to 1000	56	29.5
>1000	58	30.5

The mean ±SD age of the infant at the time of interview was 11.9 ±4.8 months. Out of these 100(52.6%) were boys and 90 (47.4%) were girls.

Infant feeding practices among study participants

In this study, infant feeding practices were assessed; these included exclusive breastfeeding, mixed feeding, replacement feeding, pre lacteal feeding and early cessation of breastfeeding. In this study, data showed that majority of infants 184(96.8%) were breastfed while few (6)3.2% were never breastfed. Of those ever breast feed their children 85.3 %(157) mothers initiated breastfeeding immediately after delivery, 6 %(11) of them initiated with one hour, 5.4 %(10) of them initiated between two to three hours after delivery and the rest 3.3%(6) of them initiated breast feeding after three hours. Majority (62.5%) of mothers who initiated breast feeding after one hour were due to caesarian section, 18.8% of them due to delayed milk secretion, 6.3% of the were due to their baby were sick and the rest of the were due to other factor.

Exclusive breastfeeding

In this study, the rate of EBF were 84.7 %(95% CI: 80% - 90%), the remaining mothers 15.3% did not breastfeed exclusively as shown in figures 1.

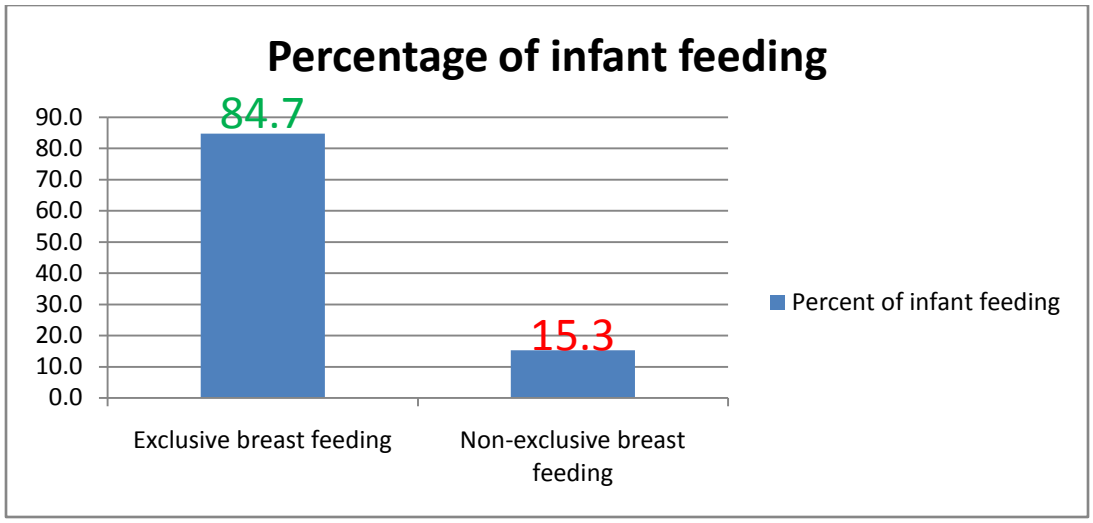

Figure 1: Breastfeeding status of HIV Positive women with 6-24 months old infants from selected health facilities in Adama town, May 2016

Data showed that the rates of exclusive breastfeeding were high at the beginning of the infant's life after birth and gradually decrease as the age of infant's increases. Majority (94%) of mothers were exclusively breast feed their infant during the first month of infants life. But, this figure decline as the age of infant increases and reach 84.7% at 6 months as summarized in figure 2.

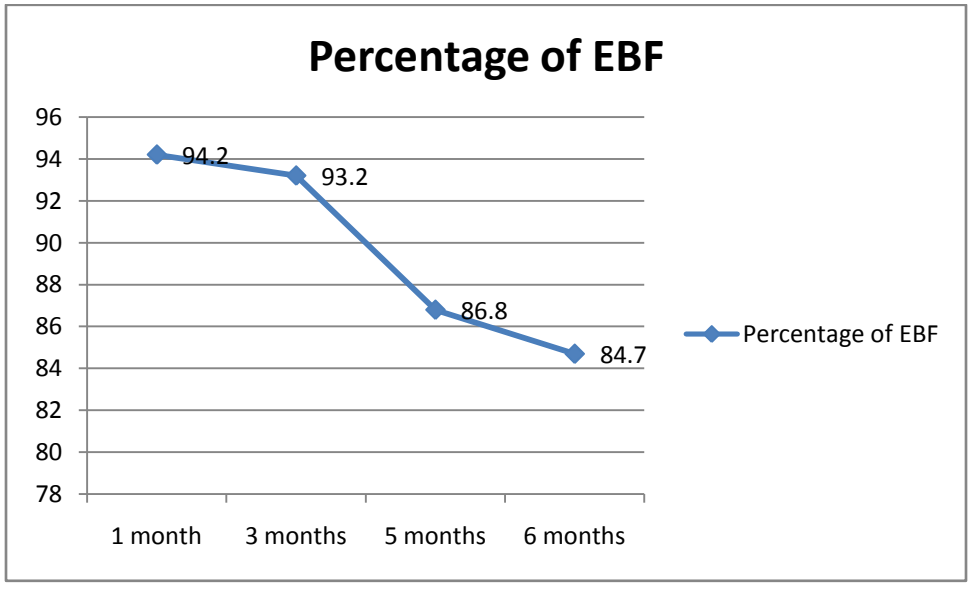

Figure 2: Percentage of infants exclusively breastfed by age among HIV Positive women with 6-24 months old infants from selected health facilities in Adama town, May 2016

Replacement Feeding

Only few infants 6 (3.2%) were never breastfed. Of those mothers who were feed their infants exclusively replacement feeding, two third 4(67%) of them used homemade food and 2(33%) used commercial formula food.

Mixed feeding

Data showed that out of 190 respondents, 12 (6.3%) gave their infants breast milk and other foods or liquids before six months of infant's life. These other foods were reported to be cow milk, porridge, juice, tea, mashed potatoes and water. Among mothers who practiced mixed feeding the commonest reasons were, 5(42%) of mothers reported it was due to infant sickness, 4(33%) influenced by people advice and 3(25%) of them reported that they think breast milk was not enough.

Pre-lacteal feeding practices

Out of 184 ever breast feed mothers, 7(3.8%) of them gave their infants liquids or foods before they initiated breast feeding (pre-lacteal feeding). More than half percent of mothers who practiced pre-lacteal feeding were influenced by family members like mother, sister, grandmother and mother in law. Among mothers who gave their infants liquids or food before initiating breastfeeding, the commonest reason citied were their breast milk was not coming out (85.7%), while sore nipples(3.7%), Illness of the mother(5%), Illness of the child(3.3%) and others(2.3%) were mentioned.

Early cessation of breastfeeding

Early cessation of breastfeeding is mothers who weaned their infants early before six months.

Data showed that 4(2.1%) mothers were stopped breastfeeding (early cessation) before six months.

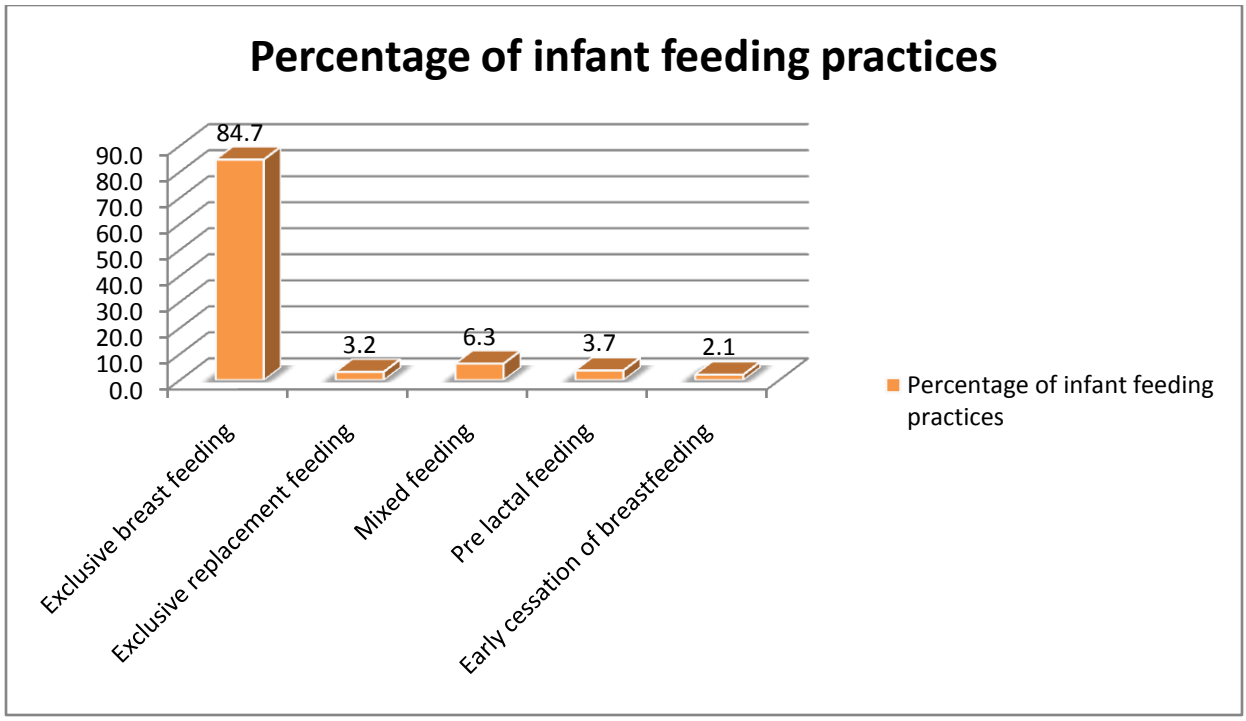

Figure 3: Infant feeding practices by HIV Positive women with 6-24 months old infants from selected health facilities in Adama town, May 2016

Reproductive health history of study participants

Data showed that most 174 (91.6%) of deliveries took place at health facilities while few 16(8.4%) took place at home. Majority of the respondents 174 (91.6%) had normal deliveries which were assisted by midwifes, nurses, health officers, doctors and other health professionals while 16(8.4%) had caesarean section. Among 184 respondents who reported to have breastfed their infants 157 (85.3%) reported initiating breastfeeding within an hour after delivery. Twenty one (11.4%) reported delaying for more than one hour while few 6(3.3%) delayed for more than a day. Early initiation; that is within one hour was done mostly by those who had vaginal delivery by 91.7%, while for all who delayed (more than one hour and more than a day) 7 % had caesarean section and 1.3 % were reported illness of either child or mother.

Majority 182 (95.8%) of the mothers who were interviewed had attended antenatal clinic during their last pregnancy, with only 8(4.2%) not attending. Those who attended antenatal clinic were offered HIV counseling and testing and pregnancy related health educations. Furthermore, Respondent mentioned they were taught one or more topics such as on benefits of breastfeeding

infants as reported by 173 (91.1%), how to position the baby when breast feeding and attachment of the baby to the breast102 (53.7%), benefits of exclusive breastfeeding in the context of HIV 136 (71.6%), management of breast problem 105 (55.3%) and expressing breast milk 34 (17.5%). Respondent reported that breastfeeding education was given mainly by health workers (94.2) who are doctors, nurses and other health professionals, and mother support groups. Few (5.5%) of the respondents reported not getting breastfeeding education during their antenatal care visit however, they heard about EBF from their friends, relatives or through media.

Knowledge of mothers about duration of exclusive breastfeeding and frequency of breastfeeding

The results showed that over three-quarters 150(80%) had adequate knowledge about exclusive breast feeding, with few 30(20%) had un-adequate knowledge about exclusive breast feeding as explained in table 2.

Table 2 Distribution of knowledge level about exclusive breastfeeding

knowledge level(possible score ranges from 0 to 6)	**Number(n=190)**	**Percentage (%)**
Adequate knowledge(5 – 6 points)	150	80%
Inadequate knowledge(0 – 4 points)	30	20%

Disclosure of HIV status

Most of the study respondents (98.3%) disclosed their HIV status to various people such as husbands/spouses, one's own mother, grandmother, mother in law, and siblings; some disclosed to one person while others disclosed to more than one person. More than three- quarter (87.9%) of the study participants reported that disclosing their HIV status to their husband/spouse, the rest of them disclosed to others such as grandmother, mother in law and sibling.

Table 3: Association of various socio-demographic variables with EBF among HIV positive women with 6-24 months old infants in selected health facilities of Adama town, May 2016

Variables	Response	Exclusive breastfeeding		P- Value	Crude OR (95% CI)
		Yes (%)	No (%)		
Name of Health facilities	Adama Hospital	76(87.4%)	11(12.6%)	0.186	1.97(0.72, 5.41)
	Adama HC	57(85.1%)	10(14.9%)	0.355	1.63(0.58, 4.58)
	Geda HC	28(77.8%)	8(22.2%)		1
Age	15 to 24	21(77.8)	6(22.2)	0.611	0.21(0.023, 1.880)
	25 to 34	123(84.8)	22(15.2)	0.292	0.33(0.042, 2.599)
	35 to 49	17(94.4)	1(5.6)		1
Place of residence	Rural	18(94.7)	1(15.26)	0.229	3.52 (0.452, 27.488)
	Urban	143(83.6)	28(16.4)		1
Marital status	Single	21(80.8)	5(19.2)	0.546	0.72(0.248, 2.094)
	Married	140(85.4)	24(14.6)		1
Education level	Below primary education	124(88.6)	16(11.4)	0.016	**2.72(1.201, 6.175)***
	Secondary and above	37(74)	13(26)		1
Religion	Orthodox	99(85)	17(14.7)	0.867	0.83(0.10, 7.196)
	Protestant	31(88.6)	4(11.4)	0.932	1.11(0.11, 11.491)
	Muslim	24(77.4)	7(22.6)	0.536	0.49(0.0541,4.685)
	Others	7(87.5)	1(12.5)		1
Ethnicity	Oromo	72(88.9)	9(11.1)	0.141	2.50(0.74, 8.469)
	Amhara	63(84)	12(16)	0.41	1.64(0.51, 5.333)
	Tigre	10(76.9)	3(23.1)	0.961	1.04(0.20, 5.343)
	Others	16(76.2)	5(23.8)		1
Occupation	Employee	19(82.6)	4(17.4)	0.293	2.37(0.47, 11.922)
	Daily Laborer	11(73.3)	4(26.7)	0.707	1.37(0.26, 7.220)
	House wife	123(87.9)	17(12.1)	0.053	3.62(0.98, 13.314)
	Others	8(66.7)	4(33.3)		1

Family monthly income	<=500	66(86.8)	10(13.2)	0.915	1.056(0.389, 2.870)
	501 -1000	45(80.4)	11(19.6)	0.404	0.655(0.240, 1.772)
	>=1000	50(86.2)	8(13.8)		1

Factors Influencing Exclusive Breastfeeding

Various factors that influence exclusive breastfeeding were identified and presented below.

The socio-demographic data were analyzed, and the findings show that exclusive breastfeeding was practiced less by mothers who had finished secondary school and above as compared to those who attained below primary school. The observed difference was statistically significant (p=0.016). Other variables such as place of residence, education level, marital status, religion, Ethnicity, Occupation, parity and monthly family income showed no statistical significance to exclusive breastfeeding as shown in table 2

Furthermore, in bivariate logistic regression analysis, exclusive breastfeeding were significantly associated with: mother who attended ANC follow up (P= 0.013) and had adequate knowledge about exclusively breastfeeding (p = 0.000). Furthermore, significant association to exclusive breastfeeding was present with mothers being heard about Exclusive Breast Feeding (p = 0.001) and disclose their HIV status to their husband/spouse (p=0.001). Although mothers who delivered in home didn't exposed to breast feeding education, data showed that it had no significant association with practicing exclusive breastfeeding (p= 0.073). Additionally, Mode of delivery and maternal breast feeding problem had no significant association with EBF (p = 0.073) and (P=0.061) respectively as presented in table 4

Table 4 : Association of Exclusive Breastfeeding practice with some variables in the sample characteristics among HIV Positive women with 6-24 months old infants from selected health facilities in Adama town, May 2016.

Variable	Response	Exclusive breastfeeding status		P-Value	Crude
		Yes (%)	No (%)		OR (95%CI)
Place of delivery	Health facility	150(86.2)	24(13.8)	0.073	2.841(0.907, 8.897)
	Home	11(68.8)	5(31.3)		1
Mode of delivery	Vaginal delivery	150(86.2)	24(13.8)	0.073	2.84(0.91, 8.90)
	C/S	11(68.8)	5(31.3)		1
ANC	Yes	157(86.3)	25(13.7)	0.013	**6.28(1.47, 26.74)***
	NO	4(50%)	4(50)		1
Had knowledge about EBF	Yes	138(90.8)	14(8.2)	0.000	**6.43(2.74, 15.07)***
	NO	23(60.5)	15(39.5)		1
Heard about EBF	Yes	157(87.2)	23(12.8)	0.001	**10.24(2.68, 39.05)***
	NO	4(40.0)	6(60.0)		
Disclosed HIV status to Husband/Spouse	Yes	145(87.9)	20(12.1)	0.001	**4.77(1.89, 12.01)***
	No	16(64.0)	9(36.0)		1
Breast feeding problem	Yes	14(70.0)	6(30.0)	0.061	0.36(0.13, 1.05)
	No	147(86.5)	23(13.5)		1

*Statistically significant, EBF- exclusive breastfeeding, ANC-Antenatal care

Although Mothers who have ever heard about exclusive breastfeeding and had ANC follow up during the last pregnancy were associated with exclusive breastfeeding in bivariate analysis, only mothers who had adequate knowledge about Exclusive Breast Feeding, those who disclosed their HIV status to their husbands/Spouses and those who had attained a primary school or below (poorly educated) retained significant association in multivariate logistic regression analysis. The results showed that mothers who had adequate knowledge on EBF were 6.8 times more likely to practice exclusive breastfeeding than the referent group (Adjusted OR = **6.84(2.54,**

18.44)) while mothers who disclosed their HIV status to their husbands/Spouses were 3.8 times more likely to practice exclusive breastfeeding than those who didn't disclose to their status to their husbands/Spouses (**Adjusted** OR= **3.80(1.28, 11.28)**). Moreover, mothers who attained primary school or below were 3.9 times more likely to practice exclusive breastfeeding than the referent group (**Adjusted OR = 3.89(1.41, 10.70)**).The results are summarized in table 5.

Table 5: Logistic regression showing factors influencing exclusive breastfeeding among HIV Positive women with 6-24 months old infants from selected health facilities in Adama town, May 2016.

Variable	**Response**	**COR (95%CI)**	**AOR (95% CI)**
Education level	Below primary education	2.72 (1.20, 6.17)	**3.89(1.41, 10.70)***
	secondary and above	1	1
Mode of delivery	Yes	2.84(0.907, 0.897)	1.66(0.23, 11.84)
	NO	1	1
ANC	Yes	6.28(1.47, 26.74)	0.57(0.04, 7.49)
	NO	1	1
Had adequate knowledge about EBF	Yes	**6.43(2.74, 15.07)**	**6.84(2.54, 18.44)***
	NO	1	1
Have you ever heard about EBF	Yes	10.24(2.68, 39.05)	3.18(0.45, 22.37)
	NO	1	1
Disclosed HIV status to Husband/Spouse	Yes	4.77 (1.89, 12.01)	**3.80(1.28, 11.28)***
	NO	1	1
Breast feeding problem	Yes	0.365(0.127, 1.046)	0.49(0.13, 1.80)
	NO	1	1

*Statistically significant, EBF- exclusive breastfeeding, ANC-Antenatal care

DISCUSSION

This study has tried to assess the proportion of EBF, MF and RF among HIV-positive mothers and identified factors that are associated with Exclusive Breast Feeding (EBF). It has been shown that EBF is more influenced by having proper knowledge about EBF, educational status of mothers and HIV disclosure status to spouse.

The results of this study were similar with other previous studies in Ethiopia and African countries that have showed that breastfeeding is accepted practice where most of the infants are breastfed [45, 52, 58, 93].

In this study it was found that most mothers (96.8%) breastfed their babies, the finding was similar with study done in Goba district, south east Ethiopia[45] and the demographic health survey of Ethiopia where it was noted that, almost all (98%) babies in Ethiopia are breastfed for some period of time regardless of mothers' HIV status [15, 45]. It was found in this study that most mothers (85.3%) initiated breastfeeding within one hour after birth, which is the recommended time [30]. Early initiation of breastfeeding is important for both the mother and the child. It helps in the production of milk and stimulates the contraction of the uterus after childbirth[15]. It is recommended that children be fed colostrum immediately after birth and continue to be exclusively breastfed. The same results has been reported by other studies where it is stated that, majority of mothers initiate breast feeding at birth and sometimes within the first day with a reported longer duration of breastfeeding of up to 24 months[28, 53, 58, 94].

In this study, the rate of exclusive breastfeeding among HIV positive mothers of Adama town was found to be 84.7% which is relatively higher compared to those reported in Ethiopia by Maru et al and Mekurem et al which was 30.6% and 73.0% respectively[28, 29]. Moreover, It was also higher than studies in Kenya, Tanzania and Uganda [39, 40, 58, 95, 96]. This observed difference may be due to commitment of government and international organization to the strengthened PMTCT services. However, the duration of exclusive breastfeeding decreased as the age of the infant increase, It was higher in the first months of life and going down as the child grow, the same has been reported in other studies [15, 94, 95, 97]. This could be a result of mothers being unsure whether their breast milk is sufficient to meet infant's body requirement for the first six months as well as fear of HIV transmission to their child through breast feeding.

This study also revealed that highly educated mothers were less likely to currently breastfeed than poorly educated mothers. This might be due to the fact that highly educated mothers have

the chance to work out side home since they have the chance to be employed. This resulted in mixed feeding. Besides, the duration of maternity leave in Ethiopia is three month so employed mother go back to work after three month, and it results in non-adherence to Excusive breast feeding. This pattern supports findings from studies in Ethiopia, Timor- Leste and Ireland where the prevalence of exclusive breastfeeding was higher among poorly educated mothers [50, 53, 54]. However, these result is in contrast with evidence from study conducted in rural district of Ethiopia, Nigeria and Kenya, where uneducated mothers are less likely breast feed than educated one[39, 60, 98].

Furthermore, this study indicated that those mothers who had knowledge on duration of exclusive breast feeding were more likely adhere to exclusive breast feeding. Similar finding were reported in study conducted in Ethiopia and Tanzania [35, 46, 98, 99]. This may be due to the fact that mothers who had knowledge about the duration of EBF knew the benefits of EBF for themselves and their infants as well as understand the consequence of not feeding their infants exclusively for the first 6 months of infant life, so they easily adhere to EBF.

This study also revealed that, disclosure to spouse was found to be a predictor to exclusive breastfeeding, mothers who disclosed their HIV status to their husband or spouses managed to adhere to exclusive breastfeeding. When the husbands are not aware of the HIV status of their wives, they usually impose on inappropriate infant feeding. Similar finding were reported in study done in Ethiopia, Kenya, Nigeria and Tanzania [29, 69, 100-102]. WHO reported that disclosure of one's HIV status to sexual partners is highly emphasized for various reasons including increased opportunities for social support [86]. Moreover, non-disclosure of HIV status to partners and close members of the family like infant's grandmother lead to non-adherence to exclusive breastfeeding. In addition; studies has been reported that women who disclose their HIV status to their spouses are less likely to practice mixed feeding [29, 100, 103, 104]. This implies that there is a need to involve those who are close to the mother in counseling on exclusive breastfeeding especially spouse or husband to decrease the consequences of mixed feeding.

Strength of the study

Data was collected both from hospital and health centers. This enables to catch heterogeneous groups. Similarly, the study has used adapted structured questionnaire to collect data.

Limitation of the study

Information on EBF feeding was based on recall since birth and some women might not remember the specific time when they introduce extra foods and drinks to their infants. Moreover, they cannot be generalized due to the small sample seize and also due to the fact that it was health facility based. The study participants received infant feeding counseling during follow-up and can easily answer the questions. This may overestimated the rates of exclusive breastfeeding practices and underestimated the rates of mixed and pre-lacteal feeding. Regardless of these limitations, study findings provide important input on infant feeding choice.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study highlights the prevalence of Exclusive breast feeding, mixed and replacement feeding and factors that contributed to adherence to EBF among HIV positive mothers.

Mothers who have knowledge about exclusive breast feeding, poorly educated mothers (attained primary school or below) and mothers who disclosure their HIV status to their husband/ spouse was found to be exclusive breastfeeding. Thus, to enhance EBF among HIV positive mothers, the following recommendations are made on the basis of the above finding

- Health workers and Counselors should provide continuous breastfeeding education to mothers whenever they attend clinics for follow up with emphasis on exclusive breastfeeding to enhance adherence to EBF
- Health workers and Counselors should encourage and assist HIV positive mothers to disclose their HIV status to their husband/spouse.
- Husbands and spouses should be involved in breastfeeding education concerning advantages of exclusive breastfeeding to the HIV exposed infants.
- An ongoing advocacy work on media (local and National) about the importance of EBF should continue.

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ANNEXES

Annex: 1 Informed consent form (English)

CONSENT FORM

ID NO._____

Consent to participate in study:

Hello, my name is _____; I am a nurse and now I am collecting data from patients in ART and PMTCT clinic for the research being conducted on exclusive breastfeeding among HIV+ mothers on chronic HIV care in Adama town by Zelalem Ketema who is the Master of public Health student in Addis Ababa University

The aim of this study is to determine factors that influence exclusive breastfeeding practices among HIV positive mothers of aged 6- 24 month old infants on chronic HIV care in Adama town.

If you agree to participate in this study, you will be required to answer a series of question that have been prepared for the study through interview in order to obtain the intended information. You will be interview for 20-30 minutes.

All information that will be collected will be kept in private and will be used only for this study. The form will not bear your name but identification number.

Participating in this study is completely voluntary. You can choose not to participate in this study and even if you have already accept to participated in the study you can quit at any time if you feel so. Refusal to participate or withdrawals from the study will not involve penalty or loss of any benefits. If you have any questions about this study you may ask me or the principal investigator Zelalem Ketema (Tel: 0913031717 email: zketema9@gmail.com)

Consent form for study subjects

I the undersigned have been informed about the purpose of this particular research project and I

have been informed that the information I give will be used only to the purpose of the study. In addition I am also informed that my identity as well as the information I will be providing will be kept confidential. Based on this, I agree to participate in the research voluntarily.

Name and signature ---------- Date----------

Annex 3፡ Informed consent form (Amharic)

<u>የፈቃደኝነትነት መግለጫ ቅፅ</u>

መለያቁጥር፡----------

ጠና ይስጥልኝ፤ ስሜ ነርስ----------እባላሁ፡፡ ዘላለም ከተማ የአዲስ አበባ ዩኒቨርስቲየ ሁለተኛ ድግሪ ተመራቂ ስሆን መመረቂያ ጥናቱን በኤችአይ ቪ/ፖዘቲቭ እናቶች ለመጀመሪያ ስድስት ወረቶች ጠት ብቻ እንዳጠቡ አስተዋጽኦ የሚያበረክቱ ነገሮችን ለማወቅ በአዳማ ከተማ አስተዳደርውስጥ ለሚደረገው ጥናት መረጃ ሰብሳቢ ነኝ፡፡

የጥናቱ አለማ ኤች አይቪ ፖዘቲቭ እናቶች ለመጀመሪያው ስድስት ወረት ጡት ብቻ እንዳጠቡ አስተዋጽኦ የሚያበረክቱ ነገሮችን ለማወቅ ነዉ፡፡

ጥናቱ ላይ ለመሳተፍ ፈቃደኛ ከሆኑ ለዚሁ ጥናት የተዘጋጁ ተከታታይ መጠይቆችን እጠይቆታለሁ፡፡ መጠየቁ ከሃያ እስከ ሰላሳ ደቂቃ ብቻ ይወስዳሉ፡፡ ከእርስዎ የሚሰበሰበው መረጃ ለጥናቱ ጥቅም ብቻ የሚወልና በሚስጥር የምንይዝ መሆኑን እንገልፃላን፡፡ በዚህ ቅጽ ለሚሰጡት መረጃ ላይ ስሞትን የማንፅፍ መሆኑን እንገልፃለን፡፡

በዚህ ጥናት ላይ የሚሳተፉ ሰዎች ሙሉ ለሙሉ ፈቃደኛ የሆኑ ሰዎች ብቻ ናቸው፡፡ ፈቃደኛ ካልሆኑ በፈለጉት ሰዓት ከጥናቱ መውጣት ይችላሉ፡፡ እዚህ ጥናት ላይ አለመሳተፉዎ ወይም ጥናቱ ውስጥ ከገቡ በኃላ መውጣት ምንም አይነት ቅጣት የማያስከትል መሆኑን እና ጥቅም የማያሳጣ መሆኑን እንገልፃለን በዚህ ጥናት ላይ ጥያቄ ካለዎት ጥናቱን እያሰራ ያለውን ዘላለም ከተማ በስልክ ቁጥር 0913031717 እንዲሁም በኢሜል አድራሻ zketemag@gmail. መጠየቅ ይችላሉ፡፡

የተሳታፊዎች ፈቃደኝነት መግልጫ

እኔ ፊርማዬን ከታች ያደረኩት ስለጥናቱ አላማና የምስጢራዉ መረጃ ለጥናቱ አለማ ብቻ የሚውል መሆኑን ተነግሮኛል፡፡በተጨማሪም ማንነቴና የሰጠሁት መረጃ በሚስጥር የሚጠበቅ መሆኑን በማወቅ ነው፡፡በዚህ መሰረት ጥናቱ ላይ ለመሳተፍ ሙሉ ለሙሉ ፈቃደኛ መሆኔን እገልፃለሁ፡፡

ስም _____

ፊርማ _____

ቀን _____

Annex 3: Data collection tool (English Version)

Assessment of prevalence and factors influencing exclusive breast feeding among HIV positive mothers at selected Health facilities of Adama city Administration

Date of interview ___/__/ 2014

Interviewer's Name _____

Questionnaire number _____

Respondent's Number _____

Name of health facility_____

SECTION 1: SOCIO – DEMOGRAPHIC INFORMATION (circle the correct answer/fill in space provided)			
A. Mother's information			
No	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
100	How old were you at your last birthday?	AGE IN COMPLETED YEARS----------	
101	Place of Residence	1. Urban 2. Rural	
102	What is your marital status?	3. Single 4. Married 5. Living together 6. Divorced 7. Widow	
103	What is your highest level education?	1. No formal education 2. Primary school 3. Secondary school 4. College and above	
104	What is your religion?	1. Orthodox 2. Catholic 3. Protestant 4. Muslim 5. Others (specify)	
105	What ethnic group does you belong to?	1. Oromo 2. Amhara 3. Tigire 4. Gurage 5. Others specify----------	
106	What is your occupation?	1. Government employee 2. Private employee 3. Daily-laborer 4. House wife 5. Merchant	

		6. Farmer 7. Others(specify) ----------	
107	What is your family total monthly income? Approximate	_____Eth.birr	
B. Infants Information			
200	How old is your child?	..... ……(Months)	
201	Sex of your child?	1. Male 2. Female	
202	Birth weight of a child (verify by using RH card if available)	……/ kg	
203	Where did you deliver this child?	1. Health facility 2. Home 3. Traditional Birth Attendant house 4. Others specify	
204	What was the mode of delivery?	1. Normal delivery(vaginal) 2. Caesarean section 3. Forceps delivery 4. Vacuum delivery 5. Episiotomy 6. other	
205	Who assisted you during delivery?	1. Health worker 2. Traditional birth attendant 3. Relatives 4. Others specify	
SECTION 2: INFANT FEEDING PRACTICES			
300	Is this your 1st, 2nd or 3rd child?	Specify …….	(If 1st child go to qn.304)

301	If not your 1st child, did you breast feed the older child? …….	1. Yes 2. No	
302	If yes, for how long?	……. Months/days	
303	If no 301, why?	1. Going back to work 2. I had HIV 3. Breast milk was not enough 4. Other	
304	Have you ever breastfed this child?	1. Yes 2. no	(if no. go to qn. 309)
305	When did you initiate breastfeeding your child for the first time after delivery?	1. Immediately after delivery 2. within 1 hour 3. 2-3 hours 4. Days (mention) ……..	
306	If delayed more than one hour, what were reasons that made you delay in breastfeeding initiation?	1. Caesarian section 2. Baby was sick 3. Mother was sick 4. Delayed milk secretion 5. Others (Mention)…….	
307	Do you currently breast feed your child?	1. Yes 2. no	
308	If the baby is still breastfeeding do you give your child any other food or liquid like water/juice apart from breast milk	1. Yes 2. no	
309	After delivery, did you give your baby anything to eat/drink before starting breastfeeding?	1. Yes 2. No	
310	If yes, what did you give your baby?	1. Water	

		2. Thin porridge 3. Milk 4. Others (specify)……	
311	Who advised you to provide your child with such type of food/ fluid?	1. My own decision 2. Grand parents 3. Friends 4. Others (specify)	
312	What were the reasons for introducing such food before starting breastfeeding?	1. Milk was not coming out 2. Sore nipples 3. Illness of the mother 4. Illness of the child 5. Other specify	
313	When did you start introducing extra foods / drinks including water to your child?	1. Less than 1 month 2. 1 to 3 months 3. 4 to 5 months 4. 6 months	
314	If your child is not currently breastfeeding, how old was the child when you stopped breastfeeding him/her?	……..months	
315	Why did you stopped breastfeeding	1. The milk was not enough 2. Work away from home 3. Breast problems 4. Fear of infecting the child 5. Others (specify)	
316	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. Others mention	
SECTION 3: SOURCES OF INFORMATION ON EXCLUSIVE BREASFEEDING			
400	During pregnancy did you attend Ante Natal Clinic?	1. Yes 2. no	(If no go to Q no. 402)
401	Did anyone talk to you about breastfeeding?	1. Yes 2. no	
402	What were you told about breast feeding?	1. Benefits of breastfeeding 2. Positioning of the baby 3. Exclusive breastfeeding 4. Management of breast problem 5. Expression of breast milk 6. Others (mention)	
403	Have you ever heard about exclusive breastfeeding?	1. Yes 2. no	(If no. go to qn. No. 406)
404	If yes, where did you get the information from?	1. Health workers 2. Media 3. Relatives 4. Others (specify)……	
405	Did anyone show you how to breast feed?	1. Yes 2. no	
406	Who showed you how to breastfeed?	1. Health workers 2. Relatives 3. Others (specify)……	
SECTION 4: KNOWLEDGE OF MOTHER ON EXCLUSIVE BREASTFEEDING			
500	What is the importance of yellowish milk	1. Nutritious	

	(colostrums)	2. Protection against diseases 3. I don't know 4. Other (mention)……	
501	Do you think breast milk alone is sufficient for the baby for 0-6 months?	1. Yes 2. No	
502	If no, for how long is breast milk sufficient for the baby?	1. 1 month 2. 2 months 3. 3 months 4. 4 months 5. 5 months	
503	How many times per day should the baby be breastfed?	1. 5-7 times 2. 8-10 times 3. On demand	
504	What is the appropriate time to start complementary foods?	1. Less than 1 month 2. 1 to 3 months 3. 4 to 5 months 4. 6 months	
505	What kind of infant feeding option recommended for HIV positive mothers for the first six month?	1. Replacement feeding 2. Exclusive breastfeeding 3. Wet nursing 4. Expressed milk 5. Breast milk and foods 6. Other(specify)	
SECTION 5: BARRIERS TO EXCLUSIVE BREASTFEEDING			
600	Have you disclosed your HIV status to anyone?	1. Yes 2. No	
601	To whom did you disclose your status?	1. Husband/Spouse 2. My mother 3. My mother in laws	

		4. Others	
602	Did you experience any breastfeeding problems?	1. Yes, breastfeeding problems? 2. No	
603	If yes, what was the problem?	1. Abscess 2. Mastitis 3. Sore/cracked nipples 4. Others (mention)	
604	How did you manage the problem?	1. Went to health facility for advice 2. Rub local herbs on it 3. Others (mention)	
605	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)	

Annex 4: Questionnaires (Amharic Version)

Assessment of prevalence and factors influencing exclusive breast feeding among HIV positive mothers at selected Health facilities of Adama city Administration

መጠየቂያዎች

የመጠየቂያ የተደረገበት ቀን ----------

የተጠያቂው ቁጥር ----------

የጠያቂው ስም ----------

የጠያቂው ቁጥር ----------

የጤና ተቋሙ ስም----------

ክፍል አንድ: ማህበራዊና ግላዊ መረጃ (ትክክለኛውን መልስ ያክብቡ/በክፍት ቦታ ላይ ይሙሉ)			
ሀ የእናቶች መረጃ			
ተ.ቁ	ጥያቄ	ኮድ	ወደ ጥያቀ ቁጥር እለፍ
100	ዕድሜዎት ስንት ነው?	----------ዓመት	
101	የመኖርያ አድራሻ	1. ገጠር 2. ከተማ	
102	የጋብቻ ሁኔታዎ ምንድ ነው?	3. ያላገባ 4. ያገባ 5. አብሮ የሚኖሩ 6. የተፋቱ 7. የሞተባት	
103	ከፍተኛ የትምህርት ደረጃዎት ምንድ ነው?	1. ምንም ያለተማሩ 2. መጀመርያ ደረጃ 3. ሁለተኛ ደረጃ 4. ኮሌጅና ከዚያ በላይ	
104	ሀይማኖቶት ምንድ ነው?	1. አርቶዶክስ 2. ካቶሊክ 3. ፕሮቴስታንት	

		4. ሙስሊም 5. ሌላ----------	
105	የዘር ሀርጌት ምንድ ነው?	1. ኦሮሞ 2. አማራ 3. ትግሬ 4. ጉራጌ 5. ሌላ----------	
106	ስራዎት ምንድ ነው?	1. የመንግስት ተቀጣሪ 2. የግል ተቀጣሪ 3. የቀን ሰራተኛ 4. የቤት እመቤት 5. ነጋዴ 6. አርሶ አደር 7. ሌላ----------	
107	የቤተሰበዎ የወር ገቢ ምን ያህል ነው?	በወር----------ብር	
ለ .የህፃናት መረጃ			
200	የህፃናዎት ዕድሜ ስንት ነው?	---------- ወር	
201	የህፃናዎት ፆታ ምንድ ነው?	1. ወንድ 2. ሴት	
203	የህፃናዎት ሲወለድ የነበረው ክብደት ስንት ነው?	-------- ኪ.ግ	
203	ህፆናዎት የት ነው የተወለደው?	1. የመንግስት ሆስፒታል 2. የግል ሆስፒታል 3. የመንግስት ጤና ጣቢያ 4. የግል ክሊኒክ 5. መንግስታዊ ያልሆነ ክሊኒክ 6. ቤት 7. የልምድ አዋላጅ ቤት 8. ሌላ ይጥቀሱ----------	
204	ህፃናትን የወለዱት በምንድ ነው?	1. በማህፀን 2. በቀዶ ጥግና 3. በማዋለጃ ፎርሴፕስ	

		4. በመሳቢያ(Vacuum delivery) 5. በማህተጸን ቀዶ ጥግና (episiotomy) 6. ሌላ ይጥቀሱ	
205	በወሊድ ግዜ ያዋለዶት ማን ነው?	1. ጥና ባለሙያ 2. የልምድ አዋላጅ 3. ዘመድ 4. ሌላ ይጥቀሱ	
ክፍል ሁለት፤ የህፃኑ አጠባብ ሁኔታ			
300	ህፃኖት ሲወለዱ የመጀመሪያዎ፣ ሁለተኛ፣ ወይስ ሶስተኛ ነው?	----------	ህፃኑ የመጀመሪያ ከሆነ ወደ ጥያቄ 304 ይሂዱ
301	የመጀመሪያዎት ካልሆነ ከሱ በፊት የነበረውን ህፃን ጡት አጥብተው ነበር?	1. አዎ 2. አይደለም	
302	አዎ ከሆነ ለምን ያህል ግዜ?	---------- ወር/ቀን	
303	አይደለም ከሆነ ለምን?	1. ወደ ስራ ስለተመለስኩ 2. ኤች አይቪ ስላለብኝ 3. የእናት ጡት በቂ ስላልሆነ 4. ሌላ ካለ ይጥቀቁ----------	
304	ይህን ህፃን ጡት አጥብተው ያውቃሉን?	1. አዎ 2. አይደለም	አይደለም ከሆነ ወደ ጥያቄ 309 ይሂድ?
305	ከወለዱ በኃላ ለመጀመሪያ ግዜ ህፃኑን ጡት ያስጀመሩት መቼ ነው?	1. ወዲያው እንደተወለደ 2. በአንድ ሰዓት ጌዜ ውስጥ 3. ከሁለት እስከ ሶስት ሰዓት 4. በቀናት ከሆነ ይጥቀሱ----------	
306	ከአንድ ሰዓት በላይ አቆይተው አስጀምረው ከሆነ ምክኒያቱ ምንድ ነው?	1. በቀዶ ጥገና ስለወለድኩኝ 2. ህፃኑ አሞት ስለነበር 3. እናትየዋን አሟት ስለነበር 4. የእናት ጡት ቶሎ ስላልወጣ 5. ሌላ ካለ ይጥቀሱ	
307	ቢአሁኑ ግዜ ልጅዎትን እያጠቡት ነው?	1. አዎ 2. አይደለም	

308	በአሁኑ ግዜ ህፃኖዎት እያጠቡ ከሆነ ተጨማሪ ምግብ ወይም መጠጥ እንደ ውሃ ጭማቂ ከእናት ጡት ውጪ ለህፃኖት ሰጥተው ያውቃሉ?	1. አዎ 2. አይደለም	
309	ከወሊዱ በኋላ ህፃኑ ጡት መጥባት ከመጀመሩ በፊት የሰጡት ምግብ/መጠጥ አለ?	1. አዎ 2. አይደለም	
310	አዎ ከሆነ ምን አይነት ምግብ ወይም መጠጥ ሰጥተውታል?	1. ውሃ 2. ቀጭን ገንፎ 3. ወትት 4. ሌላ ካለ ይጥቀሱ	
311	ምግብ ወይም ፈሳሽ ለህፃኖት እንዲሰጡ ማን መከሮት?	1. በራሴ ውሳኔ 2. በቤተሰቦቼ 3. ጓደኞቼ 4. ሌላ ካለ ይጥቀሱ	
312	ጡት ከማስጀመርዎ በፊት ምግብ ያስጀመሩት ምክንያት ምንድ ነው?	1. ከጡት ወተት አለመውጣት 2. የጡቴን ጫፍ ስላመመኝ 3. እናትየውን ስላመማት 4. ህፃኑን ህፃኖዎን ስላመመው/ስላመማት 5. ሌላ ካለ ይጥቀሱ	
313	ተጨማሪ ምግብ ወይም መጠጥ እንደ ውሃ ለህፃኖዎት መስጠት የጀመሩት መቼ ነው?	1. ከአንድ ወር በታች 2. ከአንድ እስከ ሶስት ወር 3. አራት እስከ አምስት ወር 4. በስድስት ወር	
314	ህፆኖዎት አሁን ጡት የማይጠባ/የማትጠባ ከሆነ በስንት ዕድሜ ነው ማጥባት ያቁሙት?	ወር	
315	ለምን ማጥባት አቆምሽ?	1. የጡቴ ወተት በቂ ስላልሆነ 2. ከቤት ውጭ ስለምሰራ 3. ጡቴ ችግር ስላለበት 4. ወደ ህፃኔ እንዳይተላለፍ ፈርቼ 5. ሌላ ካለ ይጥቀሱ----------	

316	የህፃን አመጋገብ ዉሳኔሽ ላይ ተዕጽኖ ያሳደረበሽ ማን ነ ው?	1. ባ ል 2. እ ና ት 3. የ ባ ል እ ና ት 4. የ ጤና ባ ለ ሙያ 5. የ ራ ሴ ወሳ ኔ 6. ሌላ ካ ለ ይ ጥ ቀ ሱ	
ክ ፍ ል ሶ ስ ት ፡ በ እ ና ት ጡት ብቻ ማጥ ባ ት ላ ይ ያ ለ የ መረ ጃ ምን ጭ			
400	በ እ ር ግ ዝ ና ሽ ጊ ዜ የ ቅ ድ መ ወ ሊ ድ ተ ከ ታ ት ለ ሻ ል ወ ይ?	1. አ ዎ 2. አ ይ ደ ለ ም	አ ይ ደ ለ ም ከ ሆ ነ ወ ደ ጥ ያ ቄ 402 ይ ሂ ዱ?
401	ስ ለ ጡት ማጥ ባ ት የ ነ ገ ረ ሽ ሰ ው ነ በ ር ?	3. አ ዎ 4. አ ይ ደ ለ ም	
402	ጡት ስ ለ ማጥ ባ ት የ ተ ነ ገ ረ ሽ ስ ለ ምን ድ ነ ው?	1. የ ጡት ማጥ ባ ት ጥ ቅ ም 2. ጡት ሲ ጠ ባ የ ህ ፃ ኑ አ ቀ ማ መ ጥ 3. ጡት ብ ቻ 4. የ ጡት ች ግ ር መ ፍ ታ ት 5. ስ ለ ጡት ወ ተ ት አ ል ቦ መ ስ ጠ ት 6. ሌ ላ ካ ለ ይ ጥ ቀ ሱ----------	
404	ጡት ብ ቻ ስ ለ ማጥ ባ ት ሰ ምተ ሽ ታ ውቂ ያ ለ ሽ	5. አ ዎ 6. አ ይ ደ ለ ም	አ ይ ደ ለ ም ከ ሆ ነ 406 ይ ሂ ዱ?
405	አ ዎ ከ ሆ ነ ፤ መረ ጃ ውን ከ የ ት አ ገ ኙ?	1. ጤና ባ ለ ሙያ 2. ብ ዙ ሃ ን መ ገ ና ኛ 3. ከ ዘ መ ድ 4. ሌ ላ ካ ለ ይ ጥ ቀ ሱ	
406	እ ን ዴ ት ጡት ማጥ ባ ት እ ን ዳ ለ ብ በ ሽ የ ነ ገ ረ ሽ ሰ ው ነ በ ር ?	7. አ ዎ 8. አ ይ ደ ለ ም	
407	ማን ነ ው ያ ሳ የ ዎ ት?	1. ጤና ባ ለ ሙያ	

		2. ዘመድ 3. ሌላ ካለ ይጥቀሱ	
ክፍል አራት፡ የእናት እውቀት ጡት ብቻ ስለማጥባት ላይ			
500	የእንገር ወተት ጥቅም ምንድነው?	1. ለህፃን ምግብነው 2. ከበሽታይከላከላል 3. አላውቀውም 4. ለላ ካለ ይጥቀሱ	
501	የእናት ጡት ብቻ ለስድስት ወር ለህፃኑ በቂ ይመስሎታል?	1. አዎ 2. አይደለም	
502	አይደለምከሆነ ለምን ያህል ጌዜ ለህፃን በቂ ነውይላሉ?	1. አንድ ወር 2. ሁለት ወር 3. ሶስት ወር 4. አራት ወር 5. አምስት ወር	
503	በቀን ለምን ያህል ጊዜ ጡት መጥባት አለበት?	1. 5 -7 ጌዜ 2. 8-10 ጊዜ 3. ሲፈልግ 4. ሌላ ካለ ይጥቀሱ----------	
504	ለህፃኑ ተጨማሪ ምግብ የምንሰጥበት ትክክለኛ ጌዜ መቼ ነው?	1. ከአንድ ወር በታች 2. ከአንድ እስከ 7 ወር 3. ከ አራት እስከ አምስት ወር 4. በስድስት ወር	
505	ለ መጀመርያ 6 ወራት ኤች አይቪ ፖዘቲቭ እናት ልጅዋን እንድትመግብ የሚመከረው የአመጋገብ አይነት ምንድነው?	1. የእናት ጡት የሚተካ ምግብ ብቻ 2. የእናት ጡት ብቻ 3. ሌላ እናት እንድታጠባ ማድረግ 4. የእናቲቱን ጡት አፍልቶ ማጥባት 5. የእናት ጡትና ተጨማሪ ምግብ 6. ሌላ ካለ ይጥቀሱ----------	
ክፍል አምስት፡ የእናት ጡት ብቻ እንዲያጠቡ እንቅፋት የሆኑ ነገሮች			
600	ኤች አይ ቪ እንዳለብሽ የገለጽሽውሰው	1. አዎ	

	አለ?	2. አይደለም	
601	አዎ ከሆነ ፤ ለማን ገለጹ?	1. ባል 2. እናት 3. አማች 4. አባት	
602	የጡት ችግር ገጥሞት ያውቃል?	1. አዎ፤ የጡት ማጥባት ችግሮች---- --- 2. አይደለም	
603	አዎ ከሆነ ፤ የገጠሞት ችግሩ ምንድነው?	1. መግል መቋጠር 2. የጡት መቆጣት 3. የጡት ጫፍ ህመም 4. ሌላ ካለ ይጥቀሱ---------	
604	ችግሩን እንዴት ፈቱ?	1. የጤና ተቋም ሄጀ 2. ምክር ወስጀ 3. በባህላዊ ቅጠል አሽቼ 4. ሌላ ካለ ይጥቀሱ	
605	እናቶች ጡት ብቻ እንዲያጠቡ የሚያደርጉቸውምክኒያቶች ምንድ ናቸው?	1. የመረጃ እጦት 2. የስራ ፍላጐት 3. የእናት ጡት በቂ ያለመሆን 4. ልምዶችና ባህላዊ እምነቶች 5. ሌላ ካለ ይጠቀሱ	