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## ASSESSMENT OF INFANT FEEDING EXPERIENCE OF HIV POSITIVE MOTHERS UTILIZING PMTCT SERVICES: THE CASE OF TIKUR ANBASSA HOSPITAL, ADDIS ABABA, ETHIOPIA

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### ABSTRACT:

**Introduction:** Mother to Child Transmission of HIV can occur during pregnancy, delivery, and breastfeeding and it accounts for more than 90% of pediatric AIDS. Various studies indicate that the rate of Mother to Child Transmission of HIV is high among infants who were on mixed feeding. UNICEF UNAIDS and WHO recommended that, all women have the right to choose exclusive breastfeeding or exclusive replacement feeding. However, numerous contextual factors can influence mothers in their choices and decisions related to what and how they feed their infants. An understanding of factors that influence women's adherence to the recommended infant feeding is critical in identifying ductile point's intervention.

**Objective:** The study aims to explore the experiences of infant feeding practices of HIV positive women who have used Prevention of Mother to Child Transmission service.

**Method:** Qualitative data were collected by the principal investigator using semi structured in-depth interview from 12 HIV Positive mothers who use PMTCT service at the Tikur Anbassa hospital and was analyzed using principles of thematic content analysis.

**Result:** Most of the informants have opted for Exclusive breastfeeding due to economic reasons. Moreover, the long-standing community belief that attaches breastfeeding with motherhood also has an implication not to choose replacement feeding. Fear of disclosure and practicing exclusive infant feeding in an area where the predominant breastfeeding is a norm, is an important challenge that affects mothers well-being because of ostracization and stigma, which makes their lives difficult in the community. The very basic essence of coping strategy is the mother's ambition to have HIV free children. Most of the Study informants have appreciated the PMTCT services. The study has explored issues related to adherence to Exclusive Infant Feeding practices.

**Conclusion:** Hence, strengthening the counseling program, expanding PMTCT services, promoting exclusive breastfeeding by all mothers, continuous work on stigma and discrimination, linking the ANC and PNC with mother support group, are the major intervention areas that have been suggested in an effort to improve the effectiveness of PMTCT service.

**INTRODUCTION:** An HIV / AIDS epidemic is a threat to the health and socioeconomic advancement of most countries in the world. The issue goes beyond health problem and it becomes a cause for social disintegration and economic deterioration of many developing countries including Ethiopia. The national single point HIV prevalence estimate was 2.1%. The Disaggregated prevalence rate was 1.7% for males and 2.6% for females; while the urban and rural prevalence rates stood at 7.7% and 0.9, respectively <sup>1</sup>.

De Cock stated that Mother -to -child transmission can occur during pregnancy, at the time of delivery, and after birth through breastfeeding (as cited in World Health Organization (WHO), 2001).

Every year around the world, approximately 600,000 babies are infected with HIV. Five hundred thousand of these babies are born in Africa. MTCT of HIV is responsible for nearly all pediatric infections and for about 10% of all new HIV infections worldwide <sup>2</sup>.

Ethiopia is one of the country's most severely hit by the HIV epidemic. Among the 105,675 HIV -infected pregnant women, an estimated 30,358 HIV positive birth occurred. MTCT of HIV can occur during pregnancy, delivery, and breastfeeding and it accounts for more than 90% of pediatric AIDS. The main objective of the PMTCT is to reduce the transmission of HIV from HIV infected mothers to their off springs. HIV transmission rate without breastfeeding is 15%-25%, with breastfeeding 25%-50% depending on duration of breastfeeding <sup>3</sup>.

As stated in the 1998 draft strategy, reducing MTCT of HIV is a complex challenge. It involves expanding HIV counseling and testing so that women who wish to know their status can do so with full confidentiality. It calls for improving antenatal and delivery care. PMTCT also demands protection against possible stigma and rejection of HIV positive women who decide not to breastfeed since in most developing countries in many cases; nowadays identifies a woman as HIV positive, both within her home and within the community.

Mothers who test positive need counseling and to be provided with appropriate information in order to make informed choices that suit their circumstances. As each situation is unique, counseling should be tailored to individual needs to balance the risk of

replacement feeding with the risk of transmission through breastfeeding <sup>3</sup>.

Given the importance of breastfeeding to infant health, and the risk that breast milk convey in MTCT of HIV, UNICEF, UNAIDS and WHO recommended that all women have the right to choose exclusive breastfeeding or exclusive replacement feeding. Thus, appropriate alternatives to breastfeeding must be made available and affordable to HIV positive mothers, while efforts continue to promote exclusive breastfeeding for HIV- women, and those women of unknown status <sup>3</sup>.

However, infected women in resource-limited countries have a significant dilemma: breastfeeding, although it provides substantial health and survival benefits to the infant and economic, social, and contraceptive, benefits to the mother, is associated with risk of HIV transmission to the infant. On the other hand, most of HIV positive mothers do not fulfill the AFASS criteria for replacement feeding <sup>4</sup>.

Various studies indicate that the rate of MTCT of HIV is high among infants who were on mixed feeding. It is also proved that those infants breast-fed for longer period are at greatest risk of HIV infection. These findings call for urgent action to educate, counsel and support HIV positive women in making decisions on how to nourish their infants safely. Because of this, WHO recommended infant feeding counseling focusing on the avoidance of mixed feeding and prolonged breastfeeding depending on the country's context as one of the strategy in PMTCT programs <sup>5</sup>.

The health implications of infant feeding practices demand immediate attention. The difficulty, however, arises in the numerous contextual factors that can influence mothers in their choices and decisions related to what and how they feed their infants.

Although there are many published literatures on infant feeding practice in HIV context in other countries, there is paucity of study in Ethiopia.

Furthermore, little is known about mothers' perspectives and experiences of exclusively breastfed or replacement feeding as a strategy to reduce postnatal HIV transmission in our country. Despite this fact, practice of mixed feeding and prolonged

breastfeeding is high in the community (Ethiopian Demographic Health survey <sup>6</sup>). It is against this background that the plans of the study of HIV positive women infant feeding practices, with more focus on exclusive breastfeeding and exclusive replacement feeding practice.

Understanding of factors that influence women's adherence to the recommended infant feeding is critical in identifying malleable point's intervention. Therefore, it is of great interest to assess identification of exclusive infant feeding practices of HIV positive women attending PMTCT service to get insight into the various factors that influence infant feeding decisions. Considering the problem of MTCT of the HIV, studies addressing this issue in Ethiopia are few and counseling on infant feeding option is among the core interventions of MTCT of HIV helps to assess the infant feeding practices that are culturally and socially embedded in community norms, the cultural beliefs and practices of HIV positive mothers and those that influence them.

This study examines the challenge in implementation of exclusive breastfeeding strategy in PMTCT of HIV analyzes the availability of feeding options which are feasible, appropriate, acceptable, and likely to be sustainable and safe in the context of Addis Ababa, Ethiopia.

## METHODOLOGY:

**Study Area and Period:** The study area was Tikur Anbassa Hospital in Addis Ababa. Tikur Anbassa Hospital was established in 1973 and it is the biggest hospital in Ethiopia having 1,262 rooms for different services. At Tikur Anbassa hospital, PMTCT services encompass pretest and post-test counseling, follow-up during Pregnancy and single dose Nevirapine during labor for the mother as well as for the infant at birth. The hospital is chosen because it is the first health institution where PMTCT service for HIV positive mother was delivered through Nigat research project which started in 2001. The study was conducted from March 2009 to May 2009.

**Study Design:** The study design was a cross-sectional exploratory facility based XX using qualitative data collection methods.

In order to explore infant feeding experiences of HIV positive mothers in PMTCT programs in Tikur

Anbassa hospital, a qualitative design was regarded as appropriate because of the context, emotional and sensitive nature of infant feeding for HIV positive mothers. The research questions required greater depth of response iterating not only mother's complex experiences on infant feeding but also the significance and meaning given to such experiences. The qualitative design is also characterized by holistic or comprehensive understanding of the social setting in which the research is done. Social life is viewed as contextual and 'dynamic' and commonly involving a series of events which must be grasped in order to explain the reality of everyday life.

The study used in-depth interview qualitative methods that aimed at getting greater depth of responses, as infant feeding is a complex and sensitive subject especially in PMTCT context. In-depth interviews are useful for obtaining information on private issues, on actual feeding behaviors, and the underlying reasons attached to them. In-depth interviews may employ different types of questions and different approaches in soliciting information.

**Study Population:** The study population was HIV positive mothers of under one year old children selected from Tikur Anbassa postnatal clinic attendants in PMTCT and delivery services. The age range was chosen to enable the focus on both breastfeeding and replacement feeding practices.

### Inclusion Criteria

Mothers were eligible if they are:

- HIV positive with children less than one year of age
- All reproductive age groups exclusively practicing breast/replacement feed, and HIV positive mothers to their infants.
- Who are willing to participate
- Who gave birth in Addis Ababa and passed through PMTCT service in Tikur Anbassa Hospital.

**Informant Selection procedure:** Recruitment of informants was done at the study site through the PMTCT nurses. Though it is difficult to fix an exact number of informants in qualitative studies,

interviews with 14 HIV positive mothers was proposed with the aim of understanding Informants' experiences and challenges with the feeding aspect (both exclusive breastfeeding and exclusive replacement feeding).

Women who had been through voluntary counseling and testing and who had received an HIV-positive test result were informed about the study by a clinic nurse and, when they agreed to participate, they were introduced to the researcher. Purposive sampling (a method of selecting individuals with qualities of interest to the research question) was used to select the first seven HIV-positive women who decided to formula-feed and the other seven HIV-positive women who intended to exclusively breast-feed. The study employed purposeful sampling. This type of sampling implies an intentional selection of informants with a wide range of variation on key characteristics of interest such as age, education, parity, religion, marriage, and choice of infant diet, within a defined criterion of inclusion. This type of sampling is also extremely useful in constructing a historical reality, describing a phenomenon, or developing something about which only little is known<sup>25</sup>.

The sample size of seven women in each feeding group was chosen to enable grasp different experiences of these feeding methods to be obtained from women within the site. The sample size can be increased if the information grasped from the interviews continues to be varied and different. The final sample size of 12 was determined after a review of the initial interview transcripts and once it was determined that no new information was being solicited taking into consideration of time and resource limitations. All the research ethical issues were discussed and agreed upon receiving informed written consent from each respondent.

**Data Collection Instrument and Process:** A qualitative research method was selected for this study with an intention of generating data rich in detail and embedded in context. The data collection instrument developed from the literature; some items from instruments used in previous studies were also adapted. Fourteen HIV positive mothers were planned for individual interviews; however, the sample reduced from fourteen to twelve. Redundancy of data was observed by the 8<sup>th</sup> interview, but 4 additional interviews were

completed to ensure a description of the full experience. Nine HIV positive postnatal mothers who breastfed their infants (one mother change to replacement feeding at 3 months) and three HIV positive postnatal mothers who replacement fed their infants were interviewed.

All interviews were conducted with a semi-structured interview guide in order to enable informants to tell their stories in their own way. Semi-structured interview guide was initially prepared in English language and then translated into Amharic language for data collection process and back translated to see nothing is lost in translation. Two different interview guides were used for the two different groups of informants: HIV positive mothers who breastfed their infants and HIV positive mothers who replacement fed their infants.

The interview guide embraces data on socio-demographic and economic characteristics, knowledge, and beliefs about MTCT of HIV and PMTCT service, infant feeding, and their feeding decision and implementation. Great emphasis was given to explore factors, that could influence infant feeding experiences of early infant-feeding practices, and factors that enabled success in maintaining exclusive infant-feeding practices (including family involvement, disclosure, and health worker interactions).

Interview with the informant started following their introduction by the nurse counselor in a room where women support group is used and then in the nurse's office to insure confidentiality. Then I started the discussion by asking informants simple social demographic questions to develop good rapport and to make informants feel at ease; then the interview continues based on the interview guide topics however, some questions are modified and paraphrased during the interview for better understanding of the informants. Moreover, throughout the interview, nonverbal communication cues were observed and the informants were encouraged to give elaborate responses with minimal intervention from the researcher.

For Exclusive breastfeeding, several issues were explored. These include socio-demographic characteristics, breastfeeding initiation and techniques; exclusivity of breastfeeding; greater



emphasis was given to knowledge, attitudes, and practices; constraints and facilitating factors.

For Exclusive replacement feeding most questions, pertaining to availability and cost of preparing home and commercial infant formula; constraints and facilitating factors for safe implementation; and informants' opinions on AFASS was raised. The in-depth interview lasted forty minute to one hour.

**Data Quality:** The trustworthiness of the results was ensured by careful selection of informants with the assistance of Nurse Counselor, by establishing good rapport with study informants. To deal with informants' bias I intentionally tried to interview HIV positive mothers with different socio demographic backgrounds recording their ideas throughout the study.

According to Maxwell (2005), in qualitative study there are two types of threats to validity (researcher bias and reactivity) .<sup>26</sup> Reactivity is the influence of the researcher on the setting or individual studies; so that to reduce this, I conducted the interview in a hospital setting by avoiding leading questions.

To minimize the researcher bias, I collected data using in-depth interviews in order to get a full picture of infant feeding practices, transcribing the interview verbatim identifying and analyzing discrepant data and seeking feedbacks from my colleagues. In addition, the interview guide was pre tested its convenience or interview flow, question clarity, and engendering missing or inappropriate information.

**Data Processing and Analysis:** Data collection and analysis was undertaken simultaneously in line with the iterative nature of qualitative methods. I followed the thematic content method that involves transcription, translation, coding, categorizing, and developing of themes and interpretation. This first involved listening to tape interview prior to transcription, transcribing verbatim then reading, and re-reading all the data sets in order to identify an initial set of themes as well as for views or experiences that would be different or contradictory to the main emerging patterns.

I did the interview and transcription all by myself that enabled me to know the material I had gathered extremely well.

**Transcription and Translation:** All in-depth interviews were recorded with permission from the informants and were transcribed for analysis. All the interviews were first transcribed verbatim from the tape-recorded into Amharic. The Amharic transcripts were then translated into English. Once the data were transcribed and translated, I went through all the data transcripts and field notes so as to make sense out of the huge array of data by sorting and interpreting it.

**Coding:** Using transcribed material, terms or concepts that best summary capture unit of meaning in a given paragraph was written in the margins of the transcripts and then line-by-line manual coding was carried out.

**Identification of Themes:** Similar codes were brought together to form categories keeping the objective of the study, then drive recurrent themes concerning infant feeding in order to determine common characteristics of women and enabling factors, personal and environmental, which contributed to exclusive infant feeding. The researcher after carefully examining relationships among codes and categories, the following emerging core themes were identified: Situation of exclusive infant feeding practice, Barriers to exclusive infant feeding, Coping Strategy of informants and Informants' (HIV positive women) and perception towards PMTCT Service. Data analysis was conducted manually by using developing categories and themes, conclusion through connecting to existing literature and integration of concepts. All the raw and coded material was kept in a safe place to ensure their confidentiality and safety.

**Ethical Consideration:** Infant feeding and HIV are a highly sensitive issue raising many ethical concerns. Informants have their ethical principles that should be protected during the course of this research study. Ethical consideration is mainly focused on:

**Protecting the Informants from Risk:** Protecting risk to the informants insures protecting the informants' human rights and applying social work ethics. Further, the attempt made to avoid discrimination of informants based on their ethnicity or social class. The right to self-determination-This was ensured through informing informants about the study proposal and their expected participation, allowing them to voluntarily choose to participate

without fear of coercion or manipulation from the primary investigator or staff members of the Tikur Anbassa Hospital. The informants have the right to withdraw from the study at any time without penalty.

**Freedom from harm-** Each informant in the research study has the right to freedom from harm. This includes freedom from physical, psychological, and economic harm. Every eligible informant was given the opportunity to participate in this study without risk of physical harm as this study used in depth interview. Each informant was also be protected from psychological harm, as they had the right to refuse to participate without fear of prejudice or jeopardizing their relationship with the staff members at the Tikur Ambassa hospital. The informants had the opportunity to ask questions during the interview time and receive enough response as the primary research investigator conducted the interview.

**The right to privacy-** The informants were allowed to determine the time, extent, and general circumstances under which private information is shared. In this research, protecting informants' privacy involved carrying out interviews in a private location where informants felt safe to express themselves.

**Confidentiality-** Confidentiality was ensured in a way that; question lists are not numbered and cannot be traced back to informants, and neither information's obtained was used for any other purpose other than this study. This was achieved by making sure that all transcribing material was kept in a password-protecting computer. During the interviews, informants introduced themselves using pseudo- name and the voice recorder were kept out of reach of others.

**Balancing Benefits and Risks of Study:** The benefit of this study, that the infant feeding practice of HIV positive mothers and their knowledge and attitude towards exclusive infant feeding, was described and explored to assist the counselors', PMTCT program coordinators in supporting HIV positive mothers more effectively. Moreover, Refreshments and compensation for travel was provided following each discussion. The risk of the study was, since HIV is a sensitive issue that it might cause temporary discomfort similar to what the informant would

experience in her life and hope that it would cease after completion of the interview.

**Consent Process:** Informed written consent was obtained from the study informants, following an explanation about the purpose of the interview and on what would be expected of them. Issues related to confidentiality and any potential risk and benefits from participation in the study was discussed. In addition, informants were informed that participation is voluntary and that they could withdraw any time without any precondition. Anonymity guaranteed to protect the identity of the person and to maintain confidentiality (See Annex 2).

**Permission obtained from ethical committees of the School and study area:** Before the study began, ethical clearance was obtained from Ethical Clearance Committee of the Graduate School of Social Work, Addis Ababa University after presenting and defending the proposal and permits to study sites were gathered from the Addis Ababa University Medical Faculty Obstetrics and Gynecology department.

**Limitation of the study:** The study mainly depends on self-report of mothers on their infant feeding practice; this might be prone to social desirability and recall bias. Besides, there could be challenged in following up of those mothers interviewed during their postnatal visit. It would have been productive to include home visits to explore the infant feeding situations of the informants. Furthermore, as the nature of qualitative researches and due to time and resource, constraints number of participants have limited and this decreases the generalizability of the finding.

## FINDINGS:

**Background characteristics of the informants:** The mothers who took part in this study were in the age range between 25 and 40, having 1-6 children who came from different parts of Addis Ababa town. Only two of them had managed to finish high school. Three mothers had never had any formal education at all. Most of the mothers were followers of Orthodox Christianity while one was a Muslim. The majorities of the mothers were either being housewives or involved in informal employment 'Gulet' outside their home areas.

All of the informants were ever married. Out of them the majority of the informants was currently married, and the remaining three were divorced. The main reason for their divorce was disclosure of their HIV status. All except two informants knew their status before pregnancy; they knew their HIV status during

the ANC follow up. Four informants were on antiretroviral therapy (ART) and breast-fed their children while the rest of informants used prophylactic antiretroviral (ARV) drug to them and their infants too.

**TABLE 1: -BASIC SOCIO DEMOGRAPHIC CHARACTERISTICS OF THE STUDY INFORMANTS**

Informants	Age	Education	Occupation	Marital Status	Religion	Ethnicity	Income	Parity
A	40	Able to write	Housewife	Divorced	Orthodox	Oromo	200	6
B	30	12th grade	Housewife	Married	Orthodox	Oromo	1200	1
C	28	8th grade	Housewife	Divorced	Orthodox	Amhara	150	3
D	27	10th	Waiter	Separate	Orthodox	Gurage	130	2
E	32	12grade	Petty trade	Married	Orthodox	Amhara	485	2
F	30	8 <sup>th</sup>	Housewife	Married	Orthodox	Gurage	400	4
G	35	6 <sup>th</sup>	Housewife	Married	Orthodox	Amhara	300	2
H	30	6 <sup>th</sup>	Housewife	Married	Orthodox	Gurage	120	3
I	31	8 <sup>th</sup>	Housewife	Married	Orthodox	Oromo	200	3
J	27	4 <sup>th</sup>	Housewife	Married	Orthodox	Gurage	500	1
K	25	Illiterate	Housewife	Married	Orthodox	Gurage	160	3
L	26	7 <sup>th</sup>	Housewife	Married	Muslim	Amhara	150	3

### Situation of Exclusive Infant Feeding Practices:

**Experience of Exclusive Breastfeeding:** Most of the informants chose this method due to economic reason even if they were not happy with using it for fear of HIV transmission to their child. One informant said, the suspicion for the fear of breast milk transmits HIV/AIDS is further aggravated when they are forced to do so by health professionals. Another informant said:

This is my third child, I lost my first child due to HIV/AIDS because the discrimination we faced from our neighbors, as a result, we were forced to leave the village, & currently we live 'Entoto holly water'. So because I have such bad experience & suffer more, I & my husband decide to raise with cow milk however, after delivery the nurse strongly forced me to give breast milk without convincing me at that time, I felt bad & worried until I know my child's sero-status. However, now I am happy my child is free from HIV.

However, two mothers choose EBF because of their experience that they have HIV free children using this method.

Predominant breastfeeding is a customary feeding that it is difficult to resist making exclusive breastfeeding. The pressure comes from family members, neighbors, & friends. Hence, except a few of EBF users who experience expressed milk, most

of the women carry their children wherever they go and they do not want to leave at home, because someone may give them water and lead them to mixed feeding.

Most of breastfed mothers, the first liquid given to their child from birth was breast milk. However, one family member of one of the informant gave boiled water to one infant while the woman was hospitalized for a Caesarian section.

The majority of the informants believe that breast milk has adequate nutritional content and is sufficient for the baby for the first 6-month duration. On the other hand, one EBF mother explains her worry that breast milk is not sufficient and that additional (complementary) food is needed.

Most of mothers stopped breastfeeding at the time the interview. This is because the mothers were HIV positive and learn to stop at six months: this was reported as the main reason for stopping breastfeeding; insufficient milk production was reported by one informant.

The large majority of informants had disclosed their HIV status to at least one person. The mothers disclosed their HIV status either to their husbands, family members or to their friends. The common reason for disclosure of their status to their husbands, family member, and friends was due to the advice of

counselors, to get economic support (those choose replacement feeding) and to encourage their friends in order to save their children respectively. Three mothers did not disclose their HIV status to anyone.

Concerning age, parity, and disclosure status of HIV positive mothers there was no major difference between breast-fed mother and those who planned to formula-feed.

Out of nine EBF users only two of them experienced with expressed breast milk while the rest of informants were not practicing expressed milk due to fear of mixed feeding by their family members so that they carry their children when they go out of home.

The study has found out that nine EBF, six of them properly implemented EBF up to 6 months and the remaining three, one mother has switched to ERF at 3 months due to insufficient milk; one mother used mixed feeding at 5 months & the third mother continued to breast feed up to 8 months. This shows that EBF implemented by the majority of the informants.

In addition, all the informants who choose EBF seek medical help for cracked nipple and this shows their level of understanding on MTCT of HIV through cracked nipple.

**Experience of Exclusive Replacement Feeding:** In Ethiopia, breastfeeding is the predominant infant feeding method. Women who did not breastfeed their children or who discontinued early, suspicion arises about the mother's sero-status.

Three mothers of the twelve HIV positive mothers interviewed chose exclusive replacement feeding. Among the three, two of them chose cow milk and the rest one chose formula milk. Two of them left their job to raise their children. All the mothers who chose formula/cow mentioned that replacement feeding is time consuming and difficult to prepare. So that this requires not only the commitment of the mothers but also the family especially of the spouses since they missed the income that generate by the women.

Moreover, the current study reveals that a woman who decides not to BF is labeled as HIV infected & ostracized by her friends and neighbors. According

to the informant, stigma and discrimination related to HIV is explained in a different way such as ostracized by the communities and isolation of children.

Hence, Stigma & discrimination discourage the adoption of recommended exclusive infant feeding practices. One informant suggests that, it needs to work hard on stigma & discrimination at community level in order to raise community awareness and thereby to strengthen the social support for HIV positive women so that they can adhere to the safe infant feeding practices. Further, the finding reveals that all informants who disclosed their HIV status are supported either by their partner or by family.

**Barriers for Exclusive Infant Feeding:** Regarding the factors that affect positively or hinder exclusive infant feeding, the study informants mentioned several factors, from their own experience, in relation to adherence issue.

1. **Psychosocial factors:** The study informants distinguished a number of psychosocial problems. Fear of disclosure, the role of community, partner, and family support as the major factors affecting HIV positive women's exclusive infant feeding practices according to the study finding.
2. **Fear of disclosure:** As far as disclosure of HIV status is concerned, the informants have stated that the existing stigma and discrimination is an important challenge. Despite the changing phenomenon, stigma and discrimination is ebbing from time to time, it still lurks widely hindering them from disclosing themselves. This is because participant believes that disclosing to the family, community members can result them from ending up in divorce, shattering social relation, forcing them to leave their rented house (for those living in rent house) and other myriads of negative sequels.

Hence, while these women hide to reveal to their family or neighbor they face difficult to stick to exclusive infant feeding practice, as people keep them asking why they do not practice mixed feeding. A mother who uses an exclusive replacement feeding said:



From the reaction of the community it is realized that 'not breastfeeding is a curse' because everybody asks why do not you breast-feed your child. Especially if you do not disclose your HIV status, the pressure from the family member is worse. And some part of the society especially older women consider the woman as if she is not a good mother thinking that she wants keep her shape and looks attractive.

It is noticeable that HIV positive mother with exclusive infant feeding practice is on verge of a complicated problem putting the life of infants in danger.

Nevertheless, another emerging situation is that this finding has detected exclusive infant feeding is becoming an implicit indicator for community members by telling a women's HIV status.

It is true that HIV/AIDS education, including PMTCT, is frequently conducted using different communication channels such as radio, Newsletter, community dialogue, household education. Hence, community awareness about exclusive breast feeding, exclusive replacement feeding has improved according to the participant this leads members to label as HIV positive whenever they see a woman avoiding mixed feeding. Which of course is another problem for the mother as it puts a psychological pressure on her for fear of being ambushed or not. An experience of EBF mother described:

Before six months while I was feeding my child, using EBF a neighbor woman had come to visit me and we were discussing about my health .To remind you I only disclosed to my husband and he left me out. When I was breastfeeding my baby, she was insisting me to give him water but I refused. This woman developed a suspicion over my situation, giving her knowledge of EBF for HIV positive women, and the next day she followed me secretly while I was going to Alert hospital where I get ART service and found out that I am client there. Um... after a few days, everyone in my neighborhood knew my status and instantly they shattered contact with my child and me and thus I faced ostracitization.

This study further reveals that the fear of disclosure is the threat to both EBF and ERF but it is much worsened in ERF, as it is not the accustomed norm of the community.

To summarize fear of disclosure, aggravated by numerous factors, creates difficulty on the adherence of mother to exclusive feeding practice as community pressure for mixed feeding ( in the absence of their cognizance to mother's HIV status) leads to endanger the health of infants and the well-being of the mother. Similarly increased community knowledge about PMTCT in general and exclusive feeding practice as a method to reduce post natal MTCT of HIV, implicitly allowing persons to know a mother HIV status undermines her voluntary initiation of disclosure.

**Economic condition of the mother:** Most of the study informants are from lower economic status. Economic background of the mother is an important characteristic that determines the choice of infant feeding practice. Based on this most of the participants are practicing EBF even if their primary choice is ERF. This is because their economic capacity does not allow them to choose for ERF.

Most of the informants do not have a job, their income source is mainly from their husband, and this affects the infant feeding choice and implementation. Thus, it seems that women do not have an option to choose. As EBF practicing mother said,

I choose EBF, otherwise what other choice could I have. As for me, understanding this is not a choice; it is rather mandatory.

Among the 12 informants, only three of them choose ERF and economy is the major reason given by EBF practitioner. Similarly, ERF practiced mothers also revealed this:

"I choose cow milk to avoid transmission of HIV through breast milk. So after I discussed with my mom and husband, my mom insisted me to use cow milk and she promised me to cover the cost , unfortunately, my mom died, and I do not want to put my child in danger but I tell you it is hard to practice. The cost is not affordable especially as the child grows up he needs more".

On the contrary, planned birth is another important point considering adherence to the issue. One of the informants has gone far to save the income of "Lada" taxi exclusively to be used to cover the purchase of formula milk.

As a result, they have successfully managed to afford till the desired time line for replacement infant feeding. This tells that when there is good preparation during pregnancy or even before for the best health of the child the effectiveness to adhere will increase. Formula fed mother explained in this way:

My husband and I knew our HIV status before nine years. Both of us had a job, he was heavy truck driver and I was a government employee. We had a plan to have a child so that we saved money and bought 'Lada Taxi' we earned 60 ETB per day. I used all the money that came from the taxi to raise my child, you know I used to buy tin formula milk every three days and I used 12 feeding bottles daily. Choosing formula milk is not simple; it needs time, money, and skill to prepare. I quitted my job to raise my child. She laughed... and told me that they called their baby 'the lada lady' and said that thanks to God she is free from HIV."

**Cultural factors:** Cultural feeding beliefs influence how mothers choose to nourish their infants and commonly regarded as truths by women. Cultural feeding beliefs have caused resistance towards the national and international feeding recommendations from health care organizations and government agencies.

All informants, regardless of infant feeding method they choose, considered that exclusive breastfeeding is more advantageous than formula feeding. However, one of the cow milk user women informed the negative effect of breast milk in risk of HIV transmission through breastfeeding.

The majorities of the informants were able to make their own decision to follow the recommended infant feeding method either by discussing with their partner / families and agreed on the method or due to divorce (three of them). Despite prevention of mother-to-child transmission PMTCT programs, very early mixed-feeding remains a norm; traditional conceptualizations of 'breast-milk as salty' are holding up against current PMTCT education.

From the informants' view prolonged breastfeeding, giving water to the baby while breast feeding, early initiation of complementary food and mixing breast milk and cow milk are common. Few of them

mention that swallowing butter as prelacteal feeds before initiation of breast milk is also practiced.

Concerning the strong cultural practice that affects exclusive breastfeeding the belief that breast milk contains salt, baby feels thirsty unless water is given for the baby and considering the mother who do not do so as a careless mother are common one. Due to this reason, the reaction of the family and the community towards exclusive breastfeeding is negative.

One of the informants explained in this way; Current use of exclusive breastfeeding in reducing MTCT of HIV is taught in antenatal clinic and disseminated through media widely. So that when a mother practices EBF the neighbors and friends level her as HIV positive and discriminate against her. (EBF mother)

Similarly, another informant stated that, "you know exclusive breastfeeding is not a customary feeding practice in our community, I heard about it from counselors in the antenatal clinic. Besides, traditionally most of the mothers gave 'Yetena Adam we ha' (traditional medicine, herbs is boiled with water) to their children believing that it treats abdominal pain. Thus, when a mother fails to do so, the family member and neighbors suspect her as HIV positive."

Another mother who practices replacement feeding also shares the concern of EBF mothers since breast-feeding is considered as one desirable sign of motherhood.

As the informant stated, because I used cow milk to my child; one of my neighbor (older women) perceived me as selfish and careless to my child wanting to keep my figure." She continues "from our tradition I see motherhood from two angles, a woman should give birth in a natural way and breastfed her child. Unfortunately, I miss both because of my HIV status" (30years old mother practicing cow milk)

**Individual factors:** From the study, factors determined that affect EBF duration includes previous experience, maternal breastfeeding confidence, pressure from a significant other, and insufficient breast milk.

Regarding the knowledge about MTCT of HIV positive mothers, most of the informant mentioned MTCT can occur during pregnancy, labor, breastfeeding, and one among others said that MTCT can occur during delivery only.

The last four informants mentioned sexual intercourse, menstruation, poor hygiene, and cracked nipple as additional means for MTCT than the above reason.

The duration of breastfeeding varies from 3 months (1/9), up to 8-month (1/9) and the majority of women stop at 6 months. The main reason of those women who do not follow the WHO recommendation that is exclusive breastfeeding up to six months is that, due to insufficient breast milk. Among the two, one woman decided to stop at 3 months after discussing with the health professionals whereas, the other woman kept giving mixed feeding to her baby without telling to the counselors.

As the mother who stopped BF at 3 month mentioned:

“My breast milk was decreasing from time to time and the baby was not getting enough milk and crying continuously then I reported to the health worker and after observing the situation... I switched to cow milk.”

Prolonged breastfeeding increases the chance of MTCT of HIV. In order to minimize the risk of HIV transmission, breastfeeding should be discontinued at six months. However all mothers may not practice it successfully. There is a difficulty to stop breastfeeding at 6 months; infants may not adopt bottle feeding immediately. One of the informants vividly told:

“When my baby reached six months, I tried to stop BF as I was told by the counselor and soon after started cow milk. However, my baby was not willing to feed the bottle and I tried many times. I was frustrated and confused & felt in a dilemma, if I continued breastfeeding the chance of acquiring HIV would increase, if not I might lose my baby due to hunger. Later I decided to continue breastfeeding up to 8 months until he was well acquainted with the bottle feeding”.

The EBF mother's view is also shared by exclusive replacement feeding users. As women who use cow milk revealed that unlike breast-milk, cow milk is not a ready-made and easily accessible she explains:

One day I forgot to put the cow milk in the refrigerator and when my child wanted to feed during nighttime, I boiled the milk but it was spoiled... my child continued to cry so I gave him my breast but unfortunately, the baby was not willing to suck.

In addition, from the ERF participants, the preparation issue is the major challenge especially for those used cow milk. Those two of the ERF use cow milk where as they prepare it differently and not as per the recommendation. According to one informant, she used to prepare the cow milk properly but she felt that it was more diluted. Due to this, she did not add water to the milk believing that she already bought diluted milk. Whereas, the other informant stated that she bought one liter of milk per day (cost is covered by one NGO). As the child grew up, she added more water to satisfy her child's demand.

Questions regarding the enabling and hindering factors to practice in EIF were also discussed to know the perception of mothers and the majority of the informants mention the following: enabling factor for EIF the self-confidence and commitment of the mother, previous experience, emotional support from partner and family members, and the ability of mother to resist a challenge. In contrast, the cultural belief in infant feeding, the pressure from a partner, family, and neighbor, the economic dependency of the mother, disclosure, and cracked nipple, availability of cow milk as needed, and affordability of cow milk are some of the factors raised by the informant as hindering factors.

**Coping Strategy of informants:** HIV positive mothers face challenges while they are practicing safe infant feeding methods and yet, most of the study participants, adhere to the exclusive infant feeding method. Exclusive replacement fed mothers face difficult situation for fear of being ambushed their sero positive by neighbor and family. In an effort to cope with this some of them pretend, when visitors arrived their house, attaching their breast closer to the mouth of the infant.

Most of the EBF mothers copes the challenge they face from a family member with mixed feeding in different ways. The majority of them carry their children with them wherever they go and few of them from disclosing their status to the family members that support them in child rearing especially when the mothers leave home.

One EBF explained in this way, she practiced EBF up to six months mainly because of the commitment that she has had a healthy child and her previous experience on breastfeeding. Another participant also added that

Adhering to ERF is very much challenging for the mother. Unless the mother is strong enough and emotionally well prepared to tolerate the pressure and stigma, she may expose her child to HIV. I know a mother who was in a Nigat project with me and fed formula milk to her child. She did not disclose her status due to this, she gave her breast in front of her husband's relatives, and HIV affected her child. She regrets and blames herself while looking her child suffering from the disease.

The very basic essence of coping strategy is the mother's ambition to have HIV free children.

#### **Informants' perception towards PMTCT Service:**

From the interviews, almost all informants (all except one) reply that the health care providers, particularly the counselors have good attitudes towards HIV positive women. They guide HIV positive women on how to prepare a replacement infant feeding, educate them how to take care and give breast, and empathize with them to develop a confidence. Therefore, it has an implication that the client HIV positive women can develop trustworthiness to the service and also attain the health seeking behavior of pregnant mothers in the community.

Asked about their suggestion for PMTCT service, most of the informants found that PMTCT service currently provided is too relevant and pertinent to the HIV positive women as well as to their children. They proposed that, it is mandatory to scale up the service towards the remote areas in order to make it accessible for all pregnant women. As one of the informant mentioned:

I got three children after learned that I am HIV positive. I benefited from PMTCT service a lot and I saved my 3 children from MTCT of HIV, given that I used prophylactic ART and strictly applying EBF. My husband and nephew only knew that I have HIV, but later I decided to disclose myself to one of my neighbors who had the sign of HIV like what I have in order to use PMTCT service and to benefit from it, then she used and benefited by just getting the HIV negative baby. Here now she thanks me for the favor of it.

One of the informants said that the PMTCT service should strengthen and organized (expanded) at the grass root level in which the extent of adherence is monitored and controlled along supporting mothers in upgrading their adherence to exclusive infant feeding. The majority supported this idea, except three out of 12. Two of them restrained to give any suggestion other than their satisfaction whereas the third informant expressed her disappointment in the infant feeding decision made by the health care provider, without her consent.

**DISCUSSION:** This part discusses the research findings in line with the major themes and in relation to other findings from similar studies. The themes are situated of infant feeding practices, the reasons for non-adherence of safer infant feeding, perception of informants towards PMTCT service and their coping strategies.

An attempt was made to minimize information bias that could arise on the question related to exclusive infant feeding by assuring the informants privacy and confidentiality of the information so as to make them feel free and tell the truth.

However, the issue addressed in the study would not be expected to be honest responded by every informant because of the sensitive nature of the subject matter investigated and the less likelihood of the informants to report the use of mixed feeding that increase the chance of HIV transmission because of perceived unacceptability of non-adherent behavior. Furthermore, the method of study used lacks the generalization of the study finding. Therefore, it is with the appreciation of these limitations that the result of this study is interpreted.



**Situation of Exclusive Infant Feeding Practice:** In relation to the breastfeeding practice of informants, several issues were explored, including breastfeeding initiation, exclusivity of breastfeeding and issues around early cessation of breastfeeding. Due emphasis is given to knowledge, attitudes, and practices; and to hindering and facilitating factors for infant feeding options.

Related to infant feeding decision, the findings of this research show that both factors that are related to the mother and to the social environment affect decisions of the mother on infant feeding. Most of the informants were able to make the decision concerning their infant feeding choices independently, but in the cases of some informants, either their partner or health care providers influenced their decision.

This finding goes with the study done in Harar in which a majority of mothers decided the feeding method by themselves and in contrast to the study done in Jimma town that showed that majority decision makers on infant feeding option are husbands followed by mother and mother in law<sup>7</sup>

Understood from this study was that, HIV positive mothers attending PMTCT clinics were more inclined to breastfeed exclusively for six months than feed formula their infants. This is in line with the global infant feeding policy and national PMTCT guideline that stated EBF is recommended for the first 6 months of life, and continuing complementary food is recommended for the first 2 years and beyond<sup>8</sup> which usually promoted at PMTCT services.

This study also demonstrates that, although most of the informants thought BF was not a better option for their babies' health, most of them opted for BF due to financial constraints. Similarly, many studies related the preference of mothers to BF to economic reasons.

For instance, Communication during the XV International AIDS Conference in Bangkok (2004) indicated that mothers practiced exclusively breastfeeding because they could not afford the alternatives. A sample of South African mothers of unknown HIV status said they practiced exclusive breastfeeding by default because they could not afford other milks<sup>9</sup>.

On the other hand, those informants choose to feed formula/cow milk rather than breastfeeding their babies, shows a strong commitment to adhering to replacement feeding in spite of the stigma attached to not breast feeding an infant.

The current finding seems to be encouraging in adhering EBF. The improvement may be related to the increased efforts made to promote exclusive breastfeeding, the positive impact of the counseling service and mother support group. Further, the majority of EBF user informants who introduced breastfeeding immediately after birth could be an indication of the impact of the PMTCT program and the effect of counseling services.

This study is in harmony with a finding of a study done in Zambia. The consecutive surveys in Zambia between 2000 and 2002 showed that the prevalence and duration of exclusive breastfeeding increased with counseling during ANC visits and post HIV-testing<sup>10</sup>. The improvement can also be explained by the fact that other studies were conducted amongst all population groups, broader levels of socioeconomic status and the fact that data on exclusive breastfeeding rates were not disaggregated according to HIV sero status.

However, it is inconsistent with other African studies including Ethiopia. Study in Zimbabwe, Botswana reported that exclusive breastfeeding was difficult to achieve beyond five months<sup>11, 12</sup>. Similar studies done in Addis Ababa Jimma town and Harar showed 32%, 6.95%, 13.4%, and rare respectively exclusive breastfeeding rate for the first 4-6 months<sup>9,13,14,15</sup>.

Regarding the initiation of breastfeeding of EBF user informants, this study reveals that almost all informant initiate breastfeeding within the first hour of delivery. This could be related to the place of delivery that the majority of informants delivered in health institution particularly in Tikur Anbassa hospital that might give an opportunity for early initiation of breastfeeding as the health worker always advice a mother too early breastfeeding and EBF as per the 2007 national PMTCT guideline.

For replacement feeding, issues in relation to the availability, accessibility, and cost of preparing cow milk and infant formula were the hindering and facilitating factors for safe implementation.

Therefore, the issue of Affordability, Feasibility, Accessibility, Sustainability, and Safe (AFASS) is put at the heart of infant feeding choice. For those informants who choose replacement feeding, the main reason to make that choice was to avoid postnatal transmission through breastfeeding. Mothers' fear of transmission may associate from the infant feeding counseling itself before the introduction of the 2006 infant feeding strategy, the counseling mainly focuses on replacement feeding if the women fulfill the AFASS criteria and if the women do not fulfill the criteria to choose exclusive breast feeding. This finding is supported by other studies. The evidence from South Africa and Tanzania studies indicates that when antenatal women first learn they are HIV-positive, many states that they tend to use replacement feeding instead of breastfeeding. Some mothers believe that all babies of HIV-positive mothers will be infected, and some completely avoid breastfeeding to reduce the risk<sup>16, 17, 18</sup>.

This study also reveals that the entire informants despite their choice fed their infant on demand. Similarly, in a LINKAGE project formative research (192003) in Ethiopia, the infants are generally breast-fed on demand unless mothers happen to be away, which is normally supported and positively practiced.

**Barriers for Exclusive Infant Feeding:** The most important issue in women in exclusive infant feeding practice is the issue of adherence. Without good adherence, an infant will be exposed to HIV. For instance, if a mother gives mixed feeding, it will increase the chance of MTCT of HIV to the infant. Various studies show that scale up of PMTCT services in general and improved adherence to safe feeding practices in particular can be attained if the factors affecting the choice of feeding of mothers are identified and appropriate interventions are put in place. Accordingly, this study seeks to identify such factors and suggests possible interventions for improving mothers' adherence to safer infant feeding practice.

1. **Economic condition of mothers:** To begin with, it is worth asking what underlines economic constraints and the reason why the women fail to adhere. Most of women's are economically dependent on others; their decision-making power is low in knowing their

HIV status and in choosing an infant feeding method. Given this, most of the informants in the study were housewives, the breadwinners of their household are the men, and this may create a power imbalance in relation to their marriage stability especially after disclosing their HIV positive status and the ability to choose feeding practice. Hence, even if the informants have adequate knowledge on MTCT of HIV and though they are capable of choosing the safer infant feeding methods, the fact that they are economically dependent on others affects their choice or their ability to adhere to the feeding method they chose, because of this most of the informants chose EBF.

This study also reveals that, there is higher adherence to EBF as compared to ERF, mainly due to the effect of counseling and financial constraints to buy alternative food such as cow and formula milk. Similarly another study conducted in Zimbabwe (20.Piwoz et al, 2005?4) shows that the rates of exclusive breastfeeding practices have reportedly improved following educational programs and a combination of group and individual counseling that led to a more than fivefold increase in the prevalence of exclusive breastfeeding respectively.

Nevertheless, a clinical trial in Ethiopia designed to evaluate the efficacy of ARVs in preventing HIV through breastfeeding followed breastfeeding and non-breastfeeding sero positive women. The researchers found out that less than half (137/293) of infants who were breastfed in the first week of life were exclusively breastfed. Of the 166 infants who had been breastfed at all, 16% were weaned by two weeks, and 66% by 4 months<sup>21</sup>.

This variation occurs because the study was prospective in nature and the follow up was limited (up to) 6 month. Whereas, the result of this study is from the general population (not clinical trial), and included mothers with infant up to the age of 11 months. Those ERF chosen informant fail to adhere due to shortage of money to buy the chosen food, lack of skill to prepare and availability issue whilst, planned birth is an important positive factor to adherence in ERF.

2. **Cultural factors:** Traditional beliefs and practices play a vital role in the upbringing of the child. This study revealed that mothers found it difficult to stick to exclusive breastfeeding in a culture where the predominant breastfeeding, extended breast feeding, early initiation of complementary feeding and use of traditional medicines were the established norm of child rearing. One of the commonly used practices is 'Tena Adam woha'; is a mixture of herbs and boiled water used as medicine to prevent and cure the abdominal pain of the infant.
3. **Psychosocial factors:** Both positive and negative consequences of disclosure are seen in this study. The majority of the informants disclosed their status to one or two persons, mainly to their partner and a few of the informants also share their status to their family member. As a result, most of the informants get support from their husband and family members; while three of the informants get divorced and separated because of the disclosure. Furthermore, strong family support seems to increase the adherence of the women to a certain feeding method and enhance the self-confidence of HIV positive mothers.

Similarly, findings of other studies done in Ethiopia shows that breastfeeding is nearly universal in Ethiopia, and the median duration of any breastfeeding is long (25.8 months) whereas exclusive breastfeeding is relatively short with a median duration of 2.1 months. Contrary to WHO recommendations, only around one in three children age 4-5 months is exclusive breastfeeding and the Linkage study revealed, complementary foods and milk are given before six months of age and in some community, there is a strong belief that breast milk does not provide sufficient nutrition, water, and this in turn adversely affects exclusive breastfeeding practices<sup>6,19</sup>.

However, a positive finding of this research is that many HIV-positive mothers shortened breastfeeding duration and adhered to exclusive infant feeding. As a result, when all of the informants' children underwent HIV screening, they all had negative results. In addition, there are courageous HIV positive women who disclosed their HIV status to avert the consequence of MTCT of HIV to the infant, despite the possible stigma.

Based on the findings of this research, compared to ERF it can be concluded that exclusive breastfeeding is a feasible infant feeding alternative to help prevent vertical HIV transmission in Ethiopia than exclusive replacement feeding. However, a lot has to be done to maximize its acceptability since the prevailing cultural norms (predominant breastfeeding and mixed feeding) make it more challenging to practice exclusive breastfeeding, as stigma and discrimination attached to exclusive breastfeeding still exist.

Strong belief in the advantages of breastfeeding, having someone at home to whom the mother had disclosed her status, the presence of family member who support her feeding choice, and not being away from home and the baby are the major factors associated with successful EBF. Furthermore, the finding reveals that those women who disclosed their status and whom their partners and families are supporting adhere more strictly to infant feeding methods, and this in turn is reduced MTCT of HIV.

Similarly, literatures also reveal the pro and cons of disclosure. Disclosure of HIV test results to a sexual partner is an important prevention goal for a number of reasons. The benefits include expanding the circle of helping people, as professional care providers, who provide access for care and support programs, plan future care for PLWHA and their partners, can be supported by close family members and friends.

Another benefit lays in assisting HIV infected women to plan for their future and partners to gain access and adhere to ART and replacement feeding for infants<sup>22</sup>.

Along with these benefits, however, there are a number of potential risks for HIV infected women in relation to disclosure. This includes loss of economic support, blame, abandonment, physical and emotional abuse, divorce, discrimination, and stigma as well as loss of custody of children and property<sup>23</sup>. From this, one can comprehend that for the majority of informants' disclosure budgets them support from partner & family members. Although

disclosure should be encouraged, the women should also have adequate skill on how to disclose. This is because those mothers who disclosed their status to their partners and family members had a more stable emotional life and social support.

Since the predominant infant feeding method in Ethiopia is breastfeeding, women who did not breastfeed their children or who discontinued early are usually suspected of having HIV/AIDS. Due to this reason, from the study informants, a woman who decided not to BF is labeled as HIV infected & ostracized by her community. Further, in this study stigma and discrimination related to HIV are explained in different ways ostracized by the communities and isolate their children.

According to the UN commission on human right resolution, discriminating a person based on mere HIV/AIDS status is prohibited. It is also clearly stated in the 1998 Ethiopia HIV policy, article 5 “people living with HIV/AIDS shall have the right to live where ever they want to and shall not be subjected to any forms of restrictions.”.

However, the study shows that even though stigma & discrimination seems to decrease, the human rights of HIV positive women are still being violated, they are still facing difficulty in relation to renting houses and they and their children are being isolated. Due to this, even though HIV positive women are encouraged to share their HIV status to others, disclosure is a very difficult decision for them.

4. **Individual factors:** At the individual level, this finding reveals that factors that affect adherence to EIF are psychosocial, environmental, stigma, the perceived ability of mothers to implement exclusive infant feeding as instructed, social support network, previous experience, and attitude towards the efficacy of exclusive infant feeding and availability of cow milk.

Furthermore, the difficulty of replacement feeding apart from the economical challenge to afford the cost of cow milk, variation in preparation of cow milk is seen in this study. Other studies done in Zambia<sup>25</sup> also in line with

this finding in that preparation of modified animal milk was thought to be too complicated for some women in the study.

From the above statement, one can realize that the issue of proper dilution as WHO recommended, which is diluting one liter of milk with half a liter of water, appeared to be beyond the knowledge and skills of the mother. On top of that this research findings show that adherence to the chosen infant feeding method is not only affected by the level of knowledge of the mother but also by the availability and accessibility of cow milk. This problem is aggravated by the need to prepare it day and night and the inadequate coverage of cost for cow milk by NGOs.

**Coping Strategy of the Informants:** Despite the various challenges that HIV positive mothers face, most of the informants seem to practice safe infant feeding methods and they adhere to the exclusive infant feeding method. The very basic essence of coping strategy is the mother’s ambition to have HIV free children. Both EBF and ERF mothers use various strategies to cope with the pressures that come from other family members and adhere to the method of their choice.

Those informants who exclusively feed replacements have to constantly make sure that they are not seen by others while feeding the replacements, for doing that might be taken as an indication of their HIV status. Therefore, they usually pretend as if they are breastfeeding in the presence of other people.

Similarly, those EBF mothers copes the challenge they face from family members towards mixed feeding in different ways. The majority of them, especially those of the informants who have not disclosed their status, carry their children with them wherever they go in order to make sure that their children are not fed with other things in their absence.

Those informants who have disclosed their status to at least one family member, however, get the support of the family member. Most of the time, in the absence of the mother, these family members look after the children and they make sure that nothing other than the breast milk is fed to the child.



Although most of the informants chose EBF due to economical reasons and despite the fact that they were uncomfortable to give their breast milk due to fear of HIV transmission, most of them adhered to it properly. This is likely due to the information and experience sharing that exists among the women, mainly through the women's support group.

**Perception of Informants towards PMTCT Service:** As for PMTCT service, this study found that most of the informants felt that the health care providers, particularly the counselors, had a good attitude towards HIV positive women and their capacity to provide proper counseling. This finding is in line with the studies in Jimma town on pregnant and lactating mothers and in Harar which showed that the majority of the informant and half of the informants had a good attitude towards VCT/ PMTCT the services respectively.

Hence, such good interaction between counselor and HIV positive mothers has an implication of their relationship. This is because the women can easily develop trust on the service, which also increases the health seeking behavior of pregnant mothers in the community. Further, the success or failure of PMTCT service depends upon the attitude, skill, and experience of its employees.

However, there seems to be reservation among the women in the current education and information about exclusive infant feeding, which emphasizes on HIV positive women. Since the education mainly advocates exclusive infant feeding for HIV positive mothers, it is leading to a tendency, among the society, to associate exclusive feeding to HIV. This kind of association makes the women vulnerable to labeling and discrimination by others.

Although, the study informants perceived PMTCT service to be effective, they also had pointed out the need for collaboration among health care workers, family, and the community at large. As, PMTCT programs provide for both prevention of HIV transmission from mother to child & enrollment of infected pregnant women and their families in antiretroviral treatment<sup>10</sup>.

The experience of informants reveals in this study was striking. Thus, stigma and discrimination were occurring for most of the informants despite their infant feeding choice mainly due to cultural factors.

The likelihood of both EBF and ERF practicing mothers potentially seen as having HIV-positive status, there is a lack of community support for both exclusive breastfeeding and replacement feeding options. From this, one can understand that beyond the individual, critically important considerations should include community resources and social norms.

The psychosocial, cultural, and economic factors were important factors that hamper informants to adhere to the chosen safer infant feeding methods.

On the other hand, this study showed that health institutions and individual factors are important factors that affect informants positively to cope the challenge they face and to adhere to what they plan to feed.

**CONCLUSION:** So far, this study has aimed at revealing deeply embedded attitudes, practices, knowledge, and beliefs regarding exclusive infant feeding in general and post natal HIV mothers in particular. It also tries to enunciate the major hindering factors towards exclusive breastfeeding experience, especially pin pointing problems with failure to adhere. Moreover, the attitude and perceptions of HIV/AIDS mothers towards PMTCT services is also described in the previous chapters. Hence, the research has identified a number of important findings that can actually add to the existing body of knowledge and has identified a future course of actions on PMTCT.

1. The majorities of the informants in this study have rich information about safe infant feeding and make frequent contacts with PMTCT services. The EBF users have awareness on the danger of mixed feeding and breast disease and give breast care and seek medical care when they get sick. Similarly, ERF users know how to prepare formula /cow milk although some of them do not adhere due to the reason beyond them. All the informants fed their children on demand.
2. Infant feeding is rooted in the socioeconomic, cultural and PMTCT context that upholds the decision-making and practice of EIF. Almost all of the informants prefer ERF to avoid postnatal MTCT of HIV however; the majority of the informants choose EBF due to economic reason.

Since most of the mothers live in a low economic status, it bears difficulty to afford buying formula/cow milk. Some of the ERF chooser informants prefer this method to ascertain guarantees to prevent HIV transmission through breastfeeding and the resultant effect of breast disease. Most of the informants who choose Exclusive Breast Feeding adheres more than Exclusive replacement Feeding choosers and this makes it Exclusive Breast Feeding (EBF) feasible in the study area.

3. This study reveals that exclusive breastfeeding may be feasible, affordable, safe, and sustainable as an infant feeding alternative in helping to prevent vertical HIV transmission in Ethiopia. However, much effort should be done to maximize its acceptability.
4. Despite the much effort done by the informants to adhere to the type of infant feeding chosen by the mothers many bottlenecks affect them to adhering have prevailed. The major reasons for occurrence, or fear of disclosure, stigma and discrimination, economic situation, and accessibility to cow milk if they have chosen for exclusive replacement –feeding are among others. Insufficient breast milk, disease of the breast and customary infant feeding (prolonged breastfeeding, giving water to the infant and early initiation of complementary food) are the reason for breast-fed mothers.
5. HIV positive mothers face challenges while they are practicing safe infant feeding methods and yet, most of the study informants, adhere to the exclusive infant feeding method. Women's belief that exclusive infant feeding helps them in having an HIV-free child plays an important role in their coping strategies. Besides that, this study reveals that HIV-infected women possessing better coping skills with problems they encounter faces in the personal and social interaction were married, and had disclosed to their partners, planned birth, and had previous HIV free children.
6. Concerning PMTCT service, most of the informants have appreciated the service and have confirmed their way of treatment is very good. In their response, they accentuated the

positive attitude the counselors have towards HIV positive women. The counselors help them in educating them how to exclusively breastfeed or formula/cow milk fed and HIV positive mothers share their experience and learn each other. Hence, it entails HIV positive clients develop trustworthiness of the service and increase the health seeking behavior of pregnant mother within the community.

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