

KAP on Feeding of Under Two-years Child and Associated Factors among Seropositive Women Attending Robe and Goba Referral Hospital, Bale zone, Oromia, Ethiopia

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ABBREVIATIONS

ANC- Antenatal care, **EBF-** Exclusive breastfeeding, **EPI-** Expanded program of immunization, **ERF-** Exclusive replacement feeding, **FMOH-** Federal ministry of health **KAP-** Knowledge, Attitude, and practice, **MBF-** Mixed breastfeeding, **MCH-** Mother and child health, **MTCT-** Mother to child transmission, **Sero-positive-** Serum HIV positive

Abstract

Background: Infant and young child feeding of Sero-positive mothers is one of the challenging issues, particularly in developing countries. **Objective:** KAP on the feeding of under two yrs child and associated factors among seropositive women attending robe and Goba referral hospitals Bale Zone, Oromia region, Ethiopia **Methods:** A quantitative cross-sectional institutional-based study was conducted from February 01- August1, 2017, Goba referral and Robe district hospitals, Bale Zone, Oromia, Ethiopia. A total of 359 study subjects were selected by using a systematic random sampling method. The collected data were analyzed by using SPSS 20.0 version. **Result:** Among the seropositive mothers (n=330), 73.9% had sufficient knowledge about infant and child feeding options recommended to HIV-positive women, 81.5% had a favorable attitude towards infant and child feeding options. Based on logistic regression analysis, knowledge of the mothers was significantly associated with their address [AOR=42.05(14.99,117.97)]. Educational status [AOR=0.168(0.04,0.70)] and no ANC [AOR=0.282(0.08, 0.95)]. Whereas seropositive mothers' attitudes were significantly associated with their marital status [AOR=13.500(2.44,74.87)]. The child feeding practice was also having a statistically significant association with monthly income [AOR=0.059(0.01, 0.45)] and number of ANC. [AOR=0.052(0.004,0.63)]. **Conclusion and Recommendation:** Mixed feeding increases the risk of Mother child transmission of HIV and diseases like diarrhea and malnutrition for infants of age 0-6 months

Keywords: knowledge; Attitude; practice; infant; young child; Robe; Goba

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Background

Infant and young child feeding is a foundation stone of care for childhood growth and development. The first two years of life provide a critical window of opportunity for ensuring children's appropriate growth and development through optimal feeding practice. Any damage caused during this period could lead to impaired cognitive development, malnutrition, poor growth and development, compromised educational achievement, and low economic productivity^{1,2}.

In Ethiopia, approximately 321,000 under-five children pass away each year³ from that malnutrition is the leading cause for nearly 57% of deaths predominantly through the exacerbation of other major causes, such as diarrhea and pneumonia⁴.

HIV transmission during childbirth or breastfeeding is the second most common way that the virus is spread to children in most of Sub-Saharan Africa, and this necessitates the need for an effective intervention⁴. Community-based quality counseling on infant and young child feeding is considered to play an important role in changing the behavior of mothers towards choosing the most appropriate infant feeding methods that are expected to reduce MTCT of HIV and improve HIV-free survival of children⁵.

The majority of pregnant girls and women have inadequate information regarding the transmission of HIV to their infants and ways to prevent the transmission. Most of the women who give birth at home are unlikely to receive information on mother-to-child transmission of HIV from the traditional birth attendants who assist them^{5,6}.

Most studies in the US and Europe have documented transmission rates in untreated women to be between 12-30%. In contrast, transmission rates in Africa and Haiti were reported to be higher (25%-52%)^{7, 10,31}. It is estimated that 5-10 percent of children who are infected with HIV are during pregnancy, whereas others 10-15 percent are infected during labor and delivery. The remaining 5-20 percent is infected during breastfeeding^{7,8,9}.

The Joint United Nations Program on HIV/AIDS (UNAIDS) and two of its partners (UNICEF and WHO)

endorse that HIV-infected mothers had better avoid breastfeeding only when replacement feeding is affordable, feasible, acceptable, sustainable, and safe (AFASS). A non-breast-fed infants born to HIV-positive women is at a lesser amount of risk of infection and death only if they can be safeguarded with continuous access to nutritionally adequate breast milk replacements that are safely prepared^{12,21}. Exclusive replacement feeding (ERF) can reduce HIV transmission, but is also associated with morbidity related to diarrhea and respiratory infections. Exclusive replacement (formula) feeding is the most widely used and effective method to prevent MTCT of HIV through breastfeeding in resource-rich settings and is recommended in situations in which this is AFASS^{22,23}. Exclusive breastfeeding by HIV-infected mothers, when compared to partial breastfeeding or mixed breastfeeding (MBF), is associated with a reduced risk of transmission in the early months of postpartum and may confer a continued lower risk of transmission in babies continuing to breastfeed from 6- 18 months^{11,12}.

Mixed Breastfeeding during the first month of life and breastfeeding duration are strong determinants of HIV transmission. The reality of EBF brings a suggestively lesser risk of MTCT of HIV than mixed feeding is not amazing because the valuable immune factors of breast milk are possibly counteracted by the impairment to the infant's gut wall by contaminants or allergens in mixed feeds^{10,21}.

In a cross-sectional study conducted in Addis Ababa, Ethiopia, the proportion of HIV-positive mothers who fed their infants ERF, EBF, and MBF were 46.8%, 30.6%, and 15.3%, respectively^{13, 14, 24}.

The predictors for choosing ERF were a mode of delivery, household income, and disclosure of HIV status to the spouse. The predictor for EBF was the mode of delivery while for MBF, disclosure of HIV status to spouse, parental infant feeding attitude, and infant illnesses were the predictors. Furthermore, mothers informed safer feeding options are challenged by some social factors. With the rising prevalence rate of HIV/AIDS, over 200,000 children under five are HIV positive in Ethiopia. The risk of transmission varies with the duration of breastfeeding, but it is estimated to be about 10-20% for those breastfed for two years^{10,19}.

Methods and Materials

Study Area

The study was conducted in Goba and Robe hospital at both towns in Bale Zone, Oromia regional state, Ethiopia, 2017. The Robe town is located 430 km and Goba is located 445 km away from Addis Ababa the capital of Ethiopia's southeast direction. The Robe is the capital town of the Bale zone. It is administratively divided into four kebeles. According to the 2007 census, the population size is 61,839 among whom 31,410 are males and 30,429 are females. The major ethnic groups based on the population size of the town are Oromos. The town has one hospital and five private clinics for profit. A Robe hospital is one of the district hospitals in Bale Zone; it provides preventive and curative health services to the community. Those services are antenatal care, FP, child health, HIV counseling, and testing; preventing mother-to-child transmission of HIV AIDS services were given. The hospital has 544 registered seropositive mothers who have a child less than two years in 2017. Goba town is among 21 woredas in Bale zone 15 Km away from Robe town. The total population of Goba town is 46,489 numbers of males is 22,390 and the number of females is 24,480. In the town, Oromo is the predominant resident ethnic group, followed by Amhara and Tigre. Goba hospital is the only referral and teaching hospital in the Bale zone, currently managed by Madda Walabu University. It gives preventive, curative, and rehabilitative services. Those services in Robe hospital were found in Goba referral hospital. 313 registered seropositive mothers have a child less than two years in 2017.

Study design

A quantitative cross-sectional institutional-based study was implemented

Study population

Those sampled seropositive mothers who have a child less than two years and attending EPI, MCH, and ART clinics in Robe and Goba governmental health institutions.

Sample Size Determination

The sample size was determined using single population formula and calculated with the following assumption $n = \frac{z^2 \cdot a/2 \cdot p(1-p)}{d^2}$ When n = sample size, z = level of significance (1.96), d = margin of error 0.05 with 95% confidence level, p = proportion of events taken the study done in jimma town, Ethiopia 2005.¹⁰, ($K=30.5\%$, $P=18.4\%$, and $A=4.7\%$) by taking the largest prevalence rate.

$$(K) n = \frac{(1.96)^2 \times 0.305 (1-0.305)}{(0.05)^2} = (3.8416 * 0.305 * 0.695) / 0.0025 = 326$$

Considering 10% non-response rate of 326 (33) = 359 women attending Goba referral and Robe hospitals for MCH and ART services.

Sampling technique

Systematic random sampling technique was implemented on all seropositive mothers who have less than two years child attending Goba and Robe hospitals for EPI, MCH, and ART Clinic services during the study period.

Data collection procedure and data quality control

A structured interviewer-administered questionnaire was adopted by principal group members after reviewing different kinds of literature to collect the information based on our study objective. First, the questionnaires were organized in English language and then it was translated to local languages (Amharic and Afan Oromo) and again back-translated to English. Associations were made on the uniformity of the two versions. Three preparatory students were employed to collect the data and one diploma nurse was recruited as supervisor to give necessary support to data collectors and facilitate the data collection process. The one-day training was given for data collectors and supervisors on methodology and instruments at the same time and place by principal supervisors. The issue of confidentiality and privacy was stressed in much depth during the training session. Client exit interviews were done in separate rooms or in a place where no one else could have heard the interview.

Data analysis

The collected data were checked for completeness, clean manually, categorize and coded on a well-drafted coding sheet, and entered into a computer using SPSS for windows version 20.0. Frequencies were used to see the overall distribution of the study subjects concerning the variables under the study. Bivariate Logistic regressions were used to assess the crude association and to select important variables included in the model. Finally, multivariate logistic regressions were used to control possible confounders and identify independent predictors of child feeding practices and also from the model OR, and their 95% CI were used to measure the association. A significance level of 0.05 was used to select the significance of statistical tests.

Ethical consideration

A permission letter was obtained from Madda Walabu University's public health department. Information on the study was given to the participants, including purpose and procedures, potential risks, and benefits. We told them participation is voluntary and private information was protected. To safeguard confidentiality, names or other identification were not included in the written questionnaires.

RESULTS

Of 359 seropositive mothers who were eligible for the study 59 (8.4%) refused to participate.

Of the remaining 330 seropositive mothers, were included in the study yielding a response rate of 91.9%.

Socio-Demographic Characteristics

Among the study participants' marital status, 64.2% (n=212) were married concerning to the place of resident 56.1 % (n=185) of the participant were urban residents. Concerning participant age, a minimum of 20years and a maximum of 46years majorities' age were lies between 26-30 years. 45.8 % (n=151) were Muslims in religion and 66.7%(n=222) were housewives by their occupation. Two hundred twenty (66.7%) of study participants have no formal education (table 1).

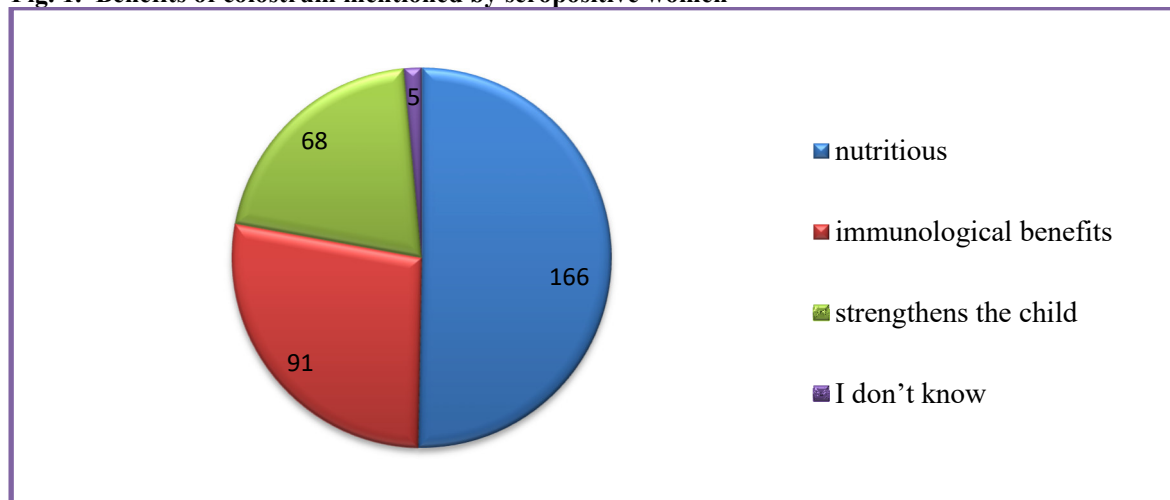
Table.1: Socio-demographic characteristics of seropositive mothers attending Goba referral and Robe district hospitals, Ethiopia, May 2017.

Variables	Frequency	Percent	
Residence	Urban	185	56.1
	Rural	145	43.9
mothers age	15-20	18	5.5
	21-25	52	15.8
	26-30	126	38.2
	31-35	76	23.0
	36-40	53	16.1
	41-45	4	1.2
	>46	1	0.3
Religion	Orthodocs	96	29.1
	Protestant	46	13.9
	Muslim	151	45.8
	Catholic	37	11.2
Ethnicity	Amhara	95	28.8
	Oromo	200	60.6
	Tigre	10	3.0
	Wolaita, Sidama	25	7.6
Marital status	Married	212	64.2
	Single	68	20.6
	Divorced	30	9.1
	Widowed	20	6.1
Mothers occupation	Housewife	267	80.9
	government employee	20	6.1
	Student	3	0.9
	Merchant	40	12.1
Educational status	Unable to read & write	80	24.24
	Read and write	140	42.42
	Primary	70	21.2
	secondary and above	40	12.1
Monthly income	<250	87	26.4
	250-499	104	31.5
	500-999	69	20.9
	above 1000	70	21.2
Total No of households	One	136	41.2
	Two	98	29.7
	above 2	96	29.1

Knowledge of Sero-positive Mother's on infant and young child feeding

Two hundred fifty-eight (78%) of the interviewed seropositive mothers have stated the nutritious advantage of breastfeeding whereas the remaining 30(4%), 20(6%), and 39 (12%) were family planning, economic and psychological benefits respectively. Cognizant of this, 200(61%) of the seropositive mothers were able to initiate breastfeeding within one hour of delivery. Whereas 75(23%), 55(16%) were 2-6 hours and greater than 6 hours after delivery. Adding to this, the seropositive women were asked to mention the benefits of colostrum. 50.3% of seropositive mothers' were mentioned as nutritious for the baby. Whereas, 27.5% of them were mentioned that colostrum has immunological benefits to the baby, and 20.6% of seropositive mothers stated that it strengthens the child, and about 1.5% of participants not knowing its importance. (fig.1)

Fig. 1. Benefits of colostrum mentioned by seropositive women



In addition, study participants were questioned about the duration of exclusive breastfeeding, the majority of the respondents 222(67%) know the duration of exclusive breastfeeding at 6months whereas 88(27%) and 20(6%) explained that 4-5months, 1-3months know the duration of exclusive breastfeeding respectively.

The majority of seropositive mothers, knowledge about the transmission of HIV shows that 88% of seropositive mothers were aware of the possibility of MTCT of HIV while 12% of seropositive mothers were unaware of the MTCT. In line with this mothers were asked to mention the time of HIV transmission, 80% of the respondents reported that it could occur during pregnancy and delivery and 18% of them stated HIV could be transmitted through breast milk. While the rest 2% said they did not know.

Sero-positive mothers were asked about the ways of reducing MTCT of HIV. The majority of respondents 140(42%) were specified that avoiding mixed feeding decreases the risk of MTCT of HIV, followed by EBF, replacement feeding and use of ARVs were 80(24 %),40(12 %), and 70(22%) can decrease the risk of MTCT of HIV respectively.

Study participants were asked about the appropriate age of complementation. The majority of our respondents 184(56%) were aware of the appropriate age of complementation whereas, 4-6 months, above 6 months, and below 4 months were 64(19%), 48(15%), and 34(10%) respectively.

Sero-positive mothers attitude towards Infant and child feeding

To assess seropositive mothers' attitudes towards breastfeeding, and complementary feeding in the context of HIV, respondents were asked to agree, disagree or remain neutral on three sets of attitudinal questions.

According to respondents, the result shows 290(88%) of seropositive mothers believe that all HIV-positive mothers can pass on the virus to their babies. In addition, despite receiving counseling on infant feeding, still they believe that all HIV-infected women who choose to breastfeed their infants can pass on the virus to their babies. Regarding the attitude of seropositive mothers towards exclusive breastfeeding as an appropriate option for feeding their exposed children is more positive than the option of replacement feeding. This is ascertained by the fact that while 180(55%) of seropositive mothers agree that exclusive breastfeeding is an appropriate option for feeding the exposed children, 15% of them consider the use of infant formula as the best option of feeding a child.

Infant and Child Feeding Practices

The majority of study participants 160(48%) they were able to initiate breastfeeding within one hour of delivery as recommended by experts. whereas 115(35%), 55(17%) were 2-6 hours and beyond 6 hours after delivery. The interviewed seropositive mothers' practice on breastfeeding duration indicates that more than 195(59%) of the respondents were continuing exclusive breastfeeding for 6 months, and about 40(12%) will continue breastfeeding beyond 2 years. Around 20% discontinued breastfeeding after 6-11 months and 30(9 %) breastfed for only 1-3 months respectively.

More than 211(63.9%) of interviewed seropositive mothers practiced exclusive breastfeeding (EBF), 110(33.1%) were practice Mixed Feeding (MF), and 9(3%) were practice Exclusive Replacement Feeding (ERF). The reason for practicing mixed feeding was, 44(13.2)% of mothers reported not enough milk, 38(11%) neighbor advice, 18(5.4%) mothers illness, 6(1.8%) sourness of the nipple and infant's mouth, and 4(1.2%) infants illness.

Concerning the appropriate age of complementation 210(64%) of study participants were initiate complementary feeding at 6 months whereas, below 4 months,4-6 months, and above 6 months were 30(9%),70(21%), and 20(6%) respectively. Regarding on types of complementary foods consumed by their children's were cereal grains, roots, and tubers. In addition, 40 percent of seropositive mothers were serves their

children fruits and vegetables. In line to these respondents were asked regards to the practice of frequency on complementary foods for aged 6months were 280(85%) should give two times while 50(15%) whereas one time for a child aged 6 months. Cognizant to the frequency of complementary foods for a child aged 7-9 months was 160(48%) feeds two times whereas three-time and four times were 140(42%) and 35 (10%) respectively. Additionally, the frequency of complementary foods for aged 11-24 months was 120(36%) three times whereas 185(56%) were two times and 25(8%) were one respectively.

Three hundred two (92%) of study participants were got advise by health care providers about the practice of child feeding. Among those advised by health care providers 176(58%), 90(30%), and replacement 36(12%) were advised on the advantage of breastfeeding, supplementary feeding, and replacement feeding. Concerning the source of information 233(71%), 20 (6%), 50 (15%), and 28(8%) of study participants got information during HIV testing, postpartum check, well-baby clinic visit, and from mass media respectively.

Factors Affecting knowledge of child feeding among seropositive mothers

The Bivariate logistic regression analysis revealed that knowledge of child feeding practice had a significant association with participants' place of residence, Number of ANC follow up and Educational status. In the Multivariate Analysis, residence, Number of ANC follow up and Educational status were found to be significantly affected to the knowledge of child feeding practice. Those mothers who live in Urban were 42 times more likely to know child feeding practices as compared to mothers living in rural areas [AOR=42.05(14.99,117.97)].

Those mothers with the educational status of unable to read and write were about 0.17 times less likely to know child feeding practice as compared from those categorized as secondary and above educational status [AOR=0.168(0.04,0.70)]

Cognizant to mothers who were attending ANC three times were 0.28 times less likely know child feeding practice as compared from those categorized as four times ANC visit [AOR=0.282(0.08, 0.95)]. (table 2)

Table 2:- Comparison of selected variables and knowledge about infant and young child feeding among seropositive mothers attending Robe hospital and Goba referral hospital.

Variable	Knowledge		OR (95% CI)	
	Yes	No	Crude	Adjusted
Place of Residence				
Rural	86	81	1	1
Urban	158	5	29.763(11.62,76.24)	42.05(14.99,117.97)
Educational status				
Unable to read and write	36	44	0.205(0.08,0.45)	0.168(0.04,0.70)
Read and write	117	23	1.272(0.52,3.11)	2.157(0.63,7.31)
Primary	59	11	1.341(0.49,3.67)	1.527(0.44,5.21)
Secondary & above	32	8	1	1
No of ANC follow up				
Two times	39	28	0.199(0.07,0.53)	0.455(0.10,2.50)
Three times	163	52	0.448(0.18,1.11)	0.282(0.08,0.95)
Four times	42	6	1	1

Factors Affecting Attitude of child feeding among seropositive mothers

The Bivariate logistic regression analysis revealed that the Attitude of child feeding had a significant association with respondents' marital status and educational status, In the Multivariate Analysis, mothers' marital status was found to be significantly associated with the attitude of child feeding. This is justified as those mothers who are married were 13.5 times more likely to have an Attitude of child feeding as compared to mothers who are widowed. [13.500(2.44, 74.87)] (table.3)

Table 3:- Comparison of selected variables and Attitude about infant and young child feeding among seropositive mothers attending Robe hospital and Goba referral hospital.

Variables	Attitude		OR (95% CI)	
	Yes	No	COR(95%CI)	AOR (95%CI)
Marital status				
Married	180	32	10.17(3.26,31.66)	10.17(0.29,357.43)
Single	54	14	7.014(2.68,18.37)	13.50(0.81,224.96)
Divorced	27	3	13.500(3.040,59.96)	13.500(2.44,74.87)
Widowed	8	12	1	1
Educational status				
Unable to read & write	70	10	3.769(1.49,9.53)	1.00(0.34,29.19)
Read & write	110	30	1.974(0.92,4.24)	0.40(0.27,6.05)
primary	63	7	4.846(1.76,13.39)	1.00(0.80,12.56)
secondary	26	14	1	1

Factors affecting the practice of child feeding among seropositive mothers

The Bivariate logistic regression analysis revealed that the Practice of child feeding had a significant association with Income and the Number of Antenatal care mothers attend, In the Multivariate Analysis, the mother's number of Antenatal care were found to be significantly affected mothers child feeding practice. [AOR=**0.052(0.004,0.63)**].

Those mothers whose monthly income is 500-999birr were 0.05 times less likely to have the practice of child feeding as compared to mothers whose monthly incomes were above 1000birr. [AOR=**0.059(0.01, 0.45)**] (table.4)

Table:-4 Comparison of selected variables and practice about infant and young child feeding among seropositive mothers attending Robe hospital and Goba referral hospital.

Variables	Practice		OR (95% CI)	
	Yes	No	COR(95%CI)	AOR (95%CI)
Monthly Income				
<250birr	34	53	0.572(0.30,1.08)	1.04(0.11,9.33)
251-499birr	80	24	2.973(1.55,5.72)	0.19(0.02,1.54)
500-999birr	40	29	1.230(0.63,2.40)	0.059(0.01,0.45)
Above1000birr	37	33	1	1
No of Antenatal care				
Two	2	65	0.47(0.01,0.22)	0.052(0.004,0.63)
Three	170	45	5.66(2.96,11.21)	38.413(5.01,294.35)
Four	19	29	1	1

DISCUSSION

The key objective of this study was to assess knowledge, attitude, and practice on the feeding of less than two-year children and associated factors among Sero-positive women attending Robe and Goba hospitals. Our study revealed that 73.9% of seropositive mothers had sufficient knowledge about infant and young child feeding options whereas 81.5% of them had favorable attitudes about infant and young child feeding and 57.9% seropositive mothers were practiced infant and young child feeding recommended for to them.

Our findings on seropositive mothers' knowledge on the duration of exclusive breastfeeding were found 61%. This finding is in line with previous research on a hospital-based study from the Northern area of Pakistan showing the prevalence of EBF was 64.8%³³. Cognizant to this respondent's knowledge about the ways of reducing MTCT of HIV was 72.7%. This result is less than that of previous research done in Mekele Haider hospital 82.3% of the pregnant mothers knew that ways MTCT of HIV is preventable⁷. Added to this similar study in Addis Ababa at Tikur Anbessa hospital were 89.9%¹⁶. This might happen due to a gap in counseling.

48% of the study participants were able to initiate breastfeeding within one hour after delivery as recommended by experts. This finding is lower as we compared with previous research done in the Tigray region where 85.5% of seropositive mothers had initiated breastfeeding after delivery within 1 hour, this gap might be due to lack of counseling or due to pressure from relatives.

More than 211(63.9%) of interviewed seropositive women practice on exclusive breastfeeding (EBF), 110(33.1%) were practice Mixed Feeding (MF), 9(3%) practiced Exclusive Replacement Feeding (ERF) and no one was reported to practice Expressed breast milk and others. This result is cognizant of the findings reported from Southern Ghana (62%), Lusaka (70.4%)^{25,26}. This might be due to the cultural preference of breastfeeding of the Ethiopian mothers than giving replacement feeding as well as the availability of resources to practice exclusive breastfeeding. In a previous study from Addis Ababa, the prevalence of practicing exclusive breastfeeding in 2008(30.6%) was comparatively lower than from this study²⁴. This might be due to a modification on policy by the Ethiopian Ministry of Health on child feeding of HIV-exposed infants endorses exclusive breastfeeding for the first 6 months and introducing complementary feeding at 6 months and continues breastfeeding until 12-18 months.

According to WHO guidelines, Breastfeeding with other foods or liquids in the first six months constitutes mixed feeding. The proportion of mixed feeding in this study was 33.1% which is similar to the study done in Ghana (40%), Lusaka (24.1%), and India (29%)^{27,28,29}. And also study report in Addis Ababa, Ethiopia (15%), Gondar, Ethiopia (10.5%)^{24,9}. This might be signifying that the value of new Prevention of mother-to-child transmission programs.

In the current study, mixed feeding was 33.1% the reason for practicing mixed feeding were, mothers reported not enough milk, neighbor advice, mothers' illness, the sourness of the nipple and infant mouth, and infants' illness. This finding is in line with a previous study done in Addis Ababa²⁴ that has identified the same reasons for the practice of mixed feeding by HIV-positive mothers. By habit, mothers may contemplate breast milk were not enough for infant growth and they propose to practice mixed feeding even they have been educated. Many scholars have been recognized that mixed feeding of infants drives them to an increased risk of mother-to-child transmission²³. Mixed feeding was also observed to result in a higher rate of mortality due to diarrheal diseases³².

The rate of exclusive replacement feeding was 3%. This finding was lower than compared to a study done in South Africa 60% of the HIV-positive mothers' practiced exclusive replacement feeding²⁰. This might be most of the mothers had low socio-economic status so they cannot afford to buy the formula food & they are different national PMTCT guidelines. The percentage of Exclusive replacement feeding was also lesser than the study conducted in Addis Ababa 46.8% it might be due to a difference in infant feeding recommendations²⁴. And comparable with Gondar 5.7%, it might be due to using the same guidelines⁹.

CONCLUSION

This study revealed that a substantial proportion of the study subjects had practiced mixed feeding (33.1%) In the current study the reason for practicing mixed feeding were, mothers reported not enough milk, neighbor advice, mothers illness, the sourness of the infant's mouth, and infants illness.

A key finding of this study is that health care workers and neighbors other community members play a leading role in infant and child feeding practices. In addition, ANC visit during pregnancy and monthly income independently affect infant feeding practice. This demands the need for a multidimensional behavioral change strategy involving mothers, family members, and significant community members.

From this study, one can also conclude that It has been documented that mixed feeding of infants will predispose them to increased risk of mother-to-child transmission.

Recommendations

By taking into account the results of this study the following recommendations are forwarded:

1. Woreda health office and NGOs should strengthen on providing up to date training for health professionals on appropriate infant and child feeding options recommended to them.
2. Periodic reassessment must be done by FMOH on the KAP of mothers on infant feeding practices in the study area and country the whole to minimize the transmission of HIV to their babies.
3. Health professionals, and Health extension workers, must strengthen their counseling in services to build up seropositive mothers and community members because they play a leading role in infant and child feeding practices.

Conflicts of Interest

The authors of this study declare that they have no competing interests.

Authors' Contributions

Authors made significant contributions from the conception of research to final authorization of the version to be published and approve to be responsible for all aspects of the work.

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