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Awareness and attitude of HIV-positive lactating mothers towards breast feeding at Kabwohe health center IV, Sheema district.

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ABSTRACT

The controversy between the risk of HIV transmission through breast milk and the lifesaving benefits of breastfeeding remains to be a dilemma faced by HIV-positive mothers. In developing countries, 30-45% of infants born to HIV-positive mothers become infected during pregnancy, childbirth, and breastfeeding. This study explored the knowledge and attitude of HIV-positive lactating mothers attending the Young Child Clinic (YCC) at Kabwohe Health Center IV, Sheema district towards breastfeeding their babies. A descriptive cross-sectional quantitative approach to data collection was used to collect data from HIV-positive lactating mothers attending Young Child Clinic at Kabwohe Health Center IV, Sheema district. Forty-four interviewed HIV-positive lactating mothers were age group of 20 to 29 (48%), 27% age group 30 to 39, 14% were age group 40 to 49, the least 7% age group 19 or lesser, and 4% were aged 50 years or more. 77% of HIV-positive mothers knew that HIV can be transmitted to their child, 18% did not know and 5% were not sure. 72.7% were aware that MTCT can be prevented by ARVs during pregnancy and breastfeeding; modified infant feeding; avoid sharing sharp objects and only 27.3% were not aware. The reproductive age needs to be empowered with knowledge regarding HIV infection, risks of transmission to their baby, and services available to reduce the risk. Follow-up and sensitization of HIV-positive lactating mothers for replacement feeding when it is acceptable, feasible, affordable, sustainable, and safe (AFASS).

Keywords: HIV-positive mothers, Breastfeeding, Childbirth, Pregnancy, Lactating mothers.

INTRODUCTION

Human Immunodeficiency Virus (HIV) infection which causes Acquired Immune Deficiency Syndrome (AIDS) has continued to be a major public health problem with estimated 34 million people worldwide infected with this virus, 52% of whom are women [1-6]. HIV is transmitted through sexual contact with an infected individual, through mother-to-child transmission (MTCT), blood transfusion, and the use of unsterilized sharp objects [7-12]. MTCT occurs when a mother passes on the virus to her child during pregnancy, labor, and breastfeeding and this is responsible for an estimated 20% of all HIV infections and more than 95% of pediatric HIV transmissions [13-19]. The UNAIDS [1] reported more than two-thirds (68%) of the global HIV population live in Sub-Sahara Africa (SSA). Of these, 3.4 million are children under 15 years of age, 90% of whom live in SSA [20-26]. There are about 7,400 new infections and 5,500 HIV-related deaths daily worldwide and over 1000 children below 15 years of age get infected with HIV daily, 90% of whom live in SSA where HIV has its greatest toll [27-34]. In Nigeria, most of the women (97.3% and 99%) know that HIV can be transmitted through breast milk and MTCT respectively [35-40]. Breastfeeding is a major health-promoting factor for infants and children in developing countries [40-47]. However, the risk of mother-to-child transmission of HIV by this route is challenging traditional practices [14]. Women in SSA breastfeed their infants for an average of 14 to 19 months, but only

30% to 46% of them practice exclusive breastfeeding (EBF) for the first 6 months postpartum [15-18]. However, the controversy between the risk of HIV transmission through breast milk and the lifesaving benefits of breastfeeding creates an impossible dilemma among HIV-positive mothers in developing countries [19-21]. In Uganda, the highest prevalence of HIV is among women of childbearing age of 19 to 25 years. The WHO [22], recommends lifelong HAART for HIV-infected women in need of treatment for their own health, which is also safe and effective in reducing MTCT or ARV prophylaxis to prevent MTCT during pregnancy, delivery and breastfeeding for HIV-infected women, not in need of treatment for themselves. A study done in southwestern Uganda showed that only 7% had adequate knowledge of how HIV was transmitted from mother to child and what steps are needed to prevent it while 82% knew that MTCT can occur during labor and delivery, only 54% knew about risk with breastfeeding, and only 23% knew that HIV could be transmitted to the fetus during pregnancy [23]. Currently, in rural Kabwohe information on HIV-positive lactating mothers breastfeeding is provided to women by local health workers that include volunteer village health teams with limited formal health training. This study explored the Knowledge and attitude of HIV-positive lactating mothers towards breastfeeding their babies attending YCC at Kabwohe Health Center IV, Sheema District.

Statement of Problem

The controversy between the risk of HIV transmission through breast milk and the lifesaving benefits of breastfeeding remains to be a dilemma faced by HIV-positive mothers [20]. Cognizant of this, WHO recommends avoidance of all breastfeeding by HIV-positive mothers when replacement feeding is acceptable, feasible, affordable, sustainable, and safe [20]. In developing countries, 30-45% of infants born to HIV-positive mothers become infected during pregnancy, childbirth, and breastfeeding [24]. The WHO and UNICEF recognized that breastfeeding contributed to about 300,000 HIV infections per year worldwide, while at the same time, 1.5 million children die each year if women do not breastfeed and the vast majority of these infections and deaths occur in Sub-Saharan Africa [25]. A study done in Nigeria, revealed 97.3% of HIV-positive women know that HIV can be transmitted through breast milk [11]. Despite that fair knowledge, the prevalence of HIV infection in Uganda is estimated at 6.8%, with 52% of HIV-infected individuals being women and about 78,000 Ugandan women living with HIV become pregnant annually, resulting in about 25,000 annual pediatric HIV infections [22]. In the absence of preventive intervention, 30-45% of infants born to HIV-positive mothers become infected during pregnancy, childbirth, and breastfeeding [24]. About 85% of the Ugandan population is rural based with limited access to information and health services [26]. The previous study done in Mwizi, a rural sub-county in the Mbarara district in southwest Uganda has shown a lack and mixed levels of knowledge regarding MTCT and EMTCT among women with only 54% knowing about the risk of HIV infection with breastfeeding [23]. No recent studies have been done in the Sheema district, particularly in a rural area of Kabwohe where reside number of HIV-positive lactating mothers are to find out their level of knowledge and attitude towards breastfeeding their babies. Therefore, this study was to explore the knowledge and attitude of HIV-positive lactating mothers towards breastfeeding their babies attending the Young Child Clinic at Kabwohe Health Center IV, Sheema District.

Aim of study

The purpose of this study was to explore the knowledge and attitude of HIV-positive lactating Mothers towards breastfeeding their babies attending the Young Child Clinic at Kabwohe Health Center IV, Sheema District.

Specific objectives

- To assess knowledge of HIV-positive lactating Mothers towards breastfeeding their babies attending YCC at Kabwohe Health Center IV, Sheema district.

- To establish the attitude of HIV-positive lactating Mothers towards breastfeeding their babies attending YCC at Kabwohe Health Center IV, Sheema district.

Research questions

- What did HIV-positive lactating Mothers know about breastfeeding their babies attending Young Child Clinic at Kabwohe Health Center IV, Sheema district?
- What were the opinions of HIV Positive Lactating Mothers towards breastfeeding their babies attending the Young Child Clinic at Kabwohe Health Center IV, Sheema district?

Justification of the study

The World Health Organization recommends lifelong highly active antiretroviral therapy for HIV-infected women in need of treatment for their own health, which is also safe and effective in reducing MTCT or ARV prophylaxis to prevent MTCT during pregnancy, delivery, and breastfeeding for HIV-infected women not in need of treatment for themselves [22]. The results from this study may inform Uganda Nurses and Midwives Team, MoH, Sheema health workers, educators and policymakers in designing appropriate and tailored health education and policies for rural HIV-positive lactating women. This should increase the levels of knowledge and attitudes of HIV Positive Lactating Mothers towards Breastfeeding their babies, translating into better access and utilization of EMTCT services in the rural area. This should consequently result to introduced MTCT and improved maternal and child health and support Uganda's efforts.

METHODOLOGY

Study design

A descriptive cross-sectional design and quantitative approach of data collection were used. This was chosen because of its proven applicability by other researchers in the same field. The questionnaire containing open and closed-ended question was used to collect data. Data collection took a period of only two weeks.

Area of Study

The study was carried out in Young Child Clinic at Kabwohe Health Center IV which is one of public health centre IV founded by the Uganda government ministry of health and Sheema District administration. The health centre is located in Kabwohe town which lies on the Mbarara-Ishaka Road, approximately 33 kilometres (21mi), by road, west of Mbarara, the largest city in the sub-region. This location lies approximately 360 kilometres (224 mi), by road, southwest of Kampala, the capital of Uganda and the largest city in that country. Kabwohe health centre provide the health services both as outpatient and inpatient department. Among them includes; Maternal and Child Health, general ward, HIV clinics, laboratory services, young child clinic

Study population

The study targeted HIV Positive Lactating Mothers attending Young Child Clinic at Kabwohe Health Center IV, Sheema District.

Sample size determination

Sample size of the study participants was calculated using Kish and Leslie's formula (1965), which state that; $n = \left(\frac{Z^2 p\, q}{r^2}\right)$

Where; n =Desired sample size,

Z = Standard deviation at the desired degree of accuracy, 1.96, the confidence level of 95%.

p = Proportion of HIV Positive Lactating Mothers attending Young Child Clinic at Kabwohe Health Center IV, Sheema District. However, no previous studies were done yet, hence p was estimated as 50% = 0.5, thus, p =0.5

q= 1.0-p = 0.5

r = the marginal error accepted at 5%, r = 0.05

$$n = \left(\frac{1.96^2 \times 0.5 \times 0.5}{0.05^2}\right)$$

$$n = 384$$

The sample size would be 384 respondents who were HIV Positive Lactating Mothers attending Young Child Clinic at Kabwohe Health Center IV, Sheema District.

However, the target population to be accessible was less than 10,000.

N=Total number of HIV Positive Lactating Mothers attending Young Child Clinic Kabwohe Health Center IV estimated to be 50 and above on the record in each month 2016.

Therefore, from:

$$nf = \left(\frac{n}{1+\frac{n}{N}}\right); \quad nf = \left(\frac{384}{1+\frac{384}{50}}\right);$$

$$nf = 44\, respondents$$

But; nf was sample size for N, the population of HIV Positive Lactating Mothers attending Young Child Clinic Kabwohe Health Center IV, less than (<) 10,000. Hence, the study considered only 44 participants who consented freely to be involved in the study.

Sampling procedure

A purposive sampling technique was employed to choose the study participants. This was appropriate in studying subjects whose required characteristics happen to in low numbers. Five HIV-positive lactating Mothers attending Young Child Clinic at Kabwohe Health who voluntarily accepted to participate in the study were asked to sign an informed consent form, and then interviewed until the required numbers were reached.

Inclusion criteria

The study involved only HIV-positive lactating mothers who were willing to participate freely. This was because it made it easy to obtain the information.

Exclusion criteria

HIV-positive lactating mothers who were not willing to participate freely

Study variables

Dependent variable

HIV Positive Lactating Mothers and their babies attending Young Child Clinic at Kabwohe Health Center IV, Sheema district.

Independent variables

Knowledge and Attitude of HIV Positive Lactating Mothers towards Breast feeding their babies attending YCC at Kabwohe Health Center IV, Sheema district.

Confounding variables

The researcher included the following confounding variables to support the study; age group of the respondents, marital status, educational level, occupation, parity, and age, sex of the child.

Research instruments

The semi-structured interview questionnaire consisting of open and close ended questions were used specifically on Knowledge and Attitude of HIV Positive Lactating Mothers towards Breast feeding their babies attending Young Child Clinic at Kabwohe Health Center IV, Sheema district. The questionnaire was developed in English of which the researcher would translate into local language (Runyankore) during data collection to allow the asked questions to be understood by the respondent and answer well especially to those who did not understood English.

Data collection

Following the ethical approval, the Researcher collected data using a questionnaire developed under supervision for the interviews. Every morning from 9:30am to 1:00pm, data would be collected and each study respondent was requested to fill the questionnaire in English with the help of Researcher. Thanking the respondent was done for participating in the study.

Data management

Data were edited, coded and entered in, item by item to check for the completion, accuracy and consistence. All data obtained from the questionnaires were kept confidential and properly to avoid any access by unauthorized personnel or loss.

Data analysis and presentation

The quantitative data analysis was guided by the majority percentage of responses, as opposed to the minority percentage responses. It was on the basis of the majority percentage responses that conclusions and findings to arrive at on each individual questionnaire variable. Then display in the form of pie charts, graphs and frequency distribution tables, and simple explanations to form the basis for discussion, recommendation and conclusion.

Ethical considerations

Prior to the commencement of the study, a letter of introduction was obtained from the School of Nursing Sciences of KIU-WC

after the ethical approval, which was addressed to the in charge of Kabwohe Health Center IV for permission to allow the researcher to assess the study participants. Verbal and written informed consent was sought from the study participants, and they were assured that their participation was voluntary. Participants were assured of their rights, privacy and confidentiality respected and the information handled were confidential.

RESULTS

Socio-demographic data

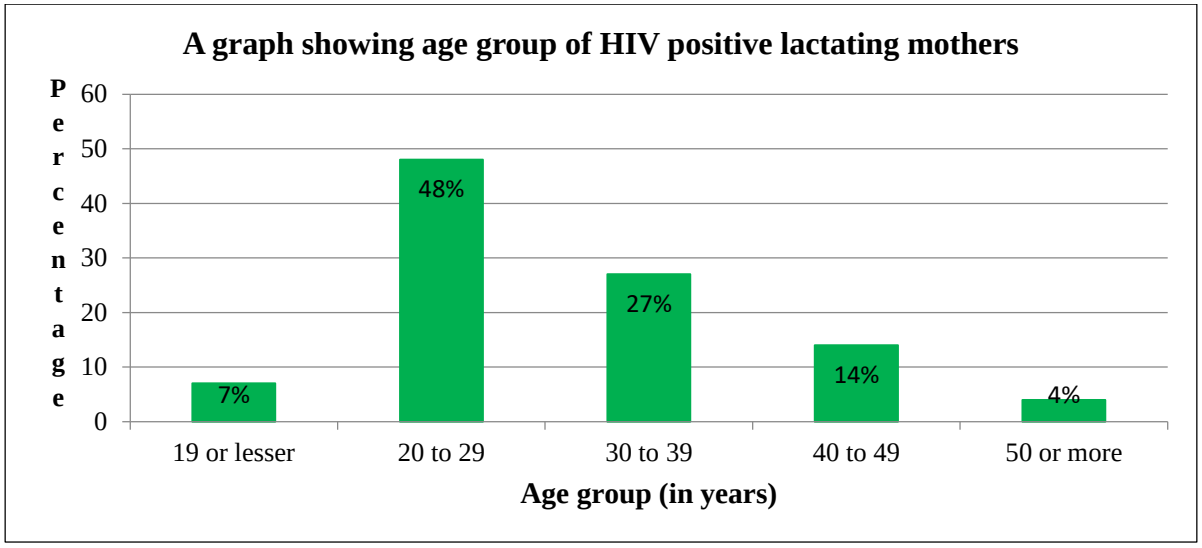

Figure 1: Bar graph showing age group of the HIV-positive lactating mothers. ***n=44***

The highest percentage of the HIV positive mothers (48%) were in the age group of 20 to 29, followed by 27% age group 30 to 39, 14% were age group 40 to 49, while the least 7% and 4% were age group 19 or lesser and 50 or more respectively.

Table 1: Show HIV-positive lactating mothers according to their marital status

Occupation	Frequency (n)	Percentage
Single	7	16%
Married	19	43%
Cohabiting	15	34%
Others (separated, divorce)	3	7%
Total	**44**	**100%**

Most respondents 43% were married, followed by those cohabiting with 34%, single were 16% while the least 7% were others (who said they separated, or divorced).

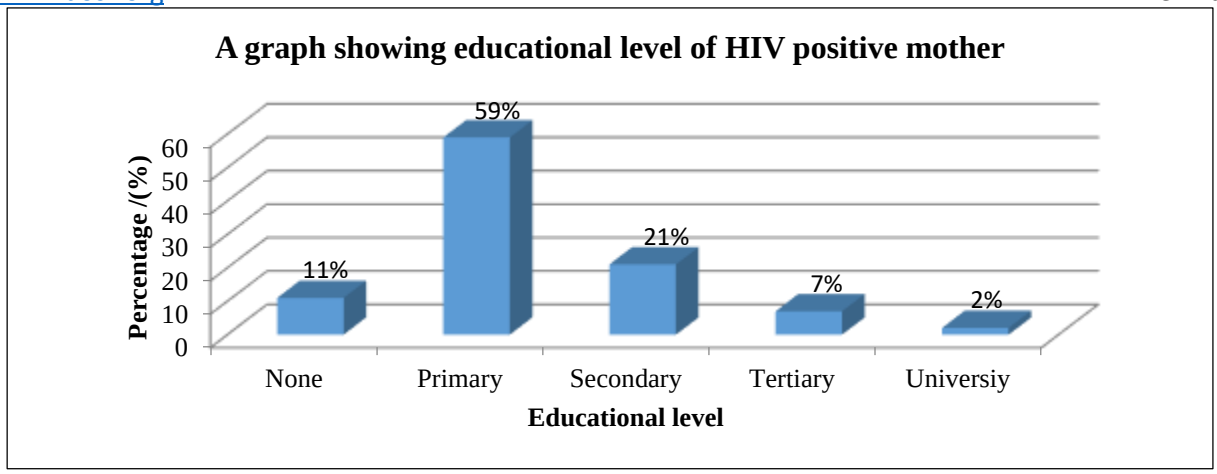

Figure 2: Bar graph showing the distribution of respondent's educational level. ***n= 44***

Figure 2 above shows 59% of mothers went through primary education, 21% went to secondary, and 11% did not go for any formal education (None), while the least number of mothers 7% and 2% had tertiary education and University respectively.

Table 2: Show the distribution of respondents according to their occupation

Occupation	Frequency (n)	Percentage /(%)
Employed	3	7
Unemployed	14	32
Others (Business, hairdressers, shopkeepers, waitresses)	27	61
Total	**44**	**100**

Table 2 showed 61%of HIV positive lactating mothers were others (who reported that they were businesswomen, hairdressers, shopkeepers, and waitresses), followed by the unemployed with 32%, and few 7% were employed.

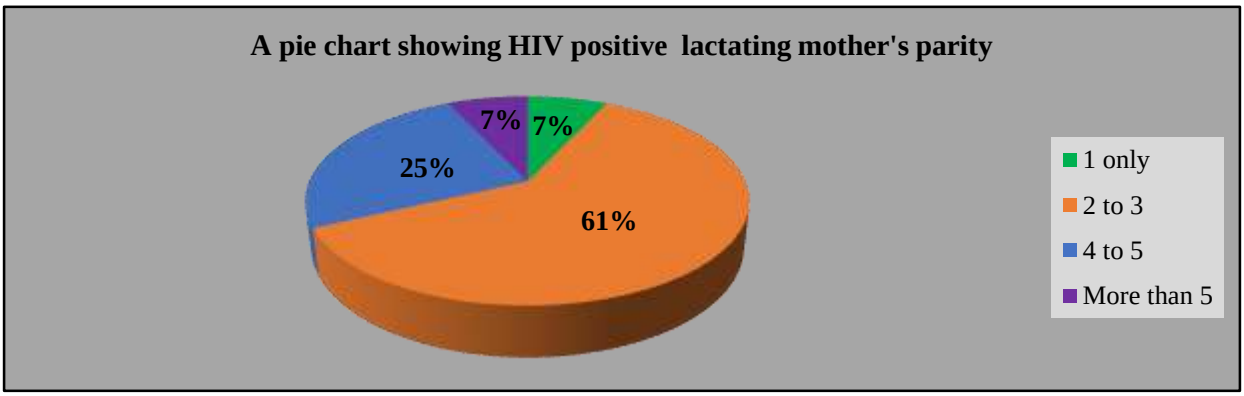

Figure 3: A pie-chart showing parity of the mothers. ***n=44***

Results from figure 3 above show 61% of HIV-positive lactating mothers had children of 2 to 3, 25% had a number of children 4 to 5, least with 7% and 7% who had 1 only and more than 5 respectively.

Table 3: Show age group of the children of the HIV-positive lactating mothers

Age group of children	Frequency (n)	Percentage /(%)
0-6 months	19	43
7-12 months	15	34
13-18 months	6	14
19-24 months	3	7
25 months or more	1	2
Total	**44**	**100**

Table 3 shows that HIV positive lactating mothers, the majority had children age group of 0-6 months (43%), followed by 7-12 months (34%), 13-18 months (14%), 19-24 months (7%) and few with 25 months or more (2%).

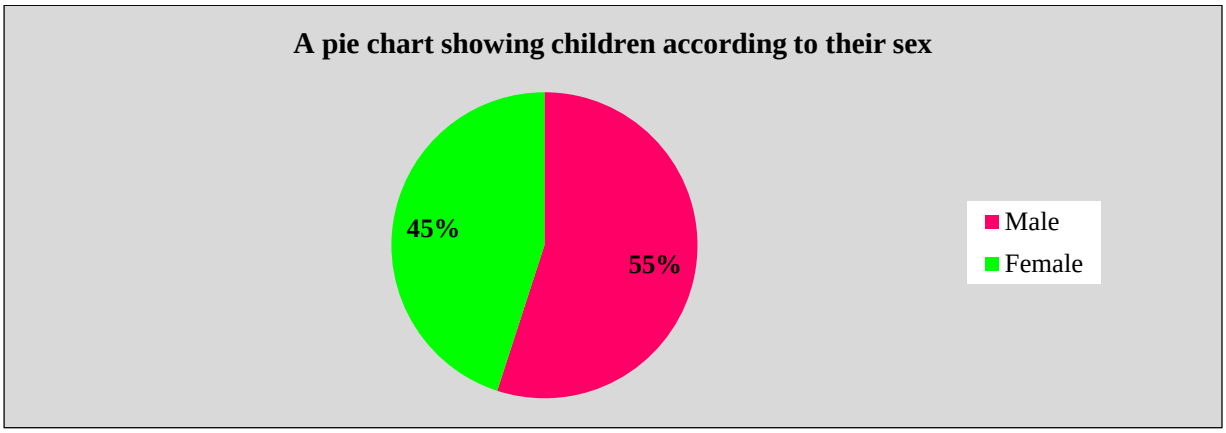

Figure 4: A pie-chart showing the distribution of children according to their sex. ***n=44***

Figure 4 results revealed majority of children of the HIV-positive lactating mothers were 55% male and only 45% were female

Knowledge of HIV-positive lactating mothers towards breastfeeding their babies

Table 4: Show whether HIV-lactating mothers breastfeed their children after delivery

Variables	Frequency (n)	Percentage / (%)
Yes	38	86.4
No	2	4.5
I don't know	4	9.1
Total	**44**	**100.0**

According to table 4, the majority 38 (86.4%) Yes of respondents agreed that an HIV-positive mother can breastfeed her baby after delivery, 4 (9.1%) I don't know and few 2 (4.5%) No.

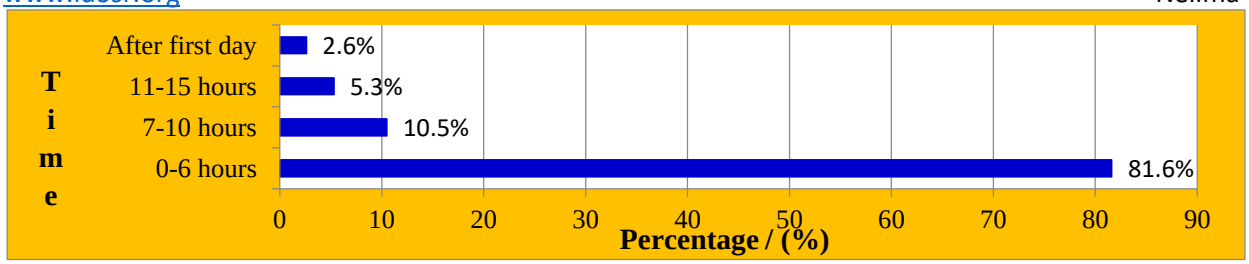

Figure 5: A bar graph showing appropriate initiation time of breast feeding by HIV positive mothers. ***n=38***

Figure 5 above, out of 38 respondents 82% (36) said appropriate initiation time of breastfeeding to be 0-6 hours, 11% (5) said 7-10 hours meanwhile 5% (2) said 11-15 hours and only 2% (1) respondent said should be after first day.

Table 5: Show the period the child should be breastfed by HIV-positive mothers

Variables	Frequency (n)	Percentage
1-5 months	1	3%
6-7 months	2	5%
8-10 months	6	16%
11-12 months	29	76%
Total	**38**	**100%**

Table 5, most respondents supported period of 11-12 months with 76% (29), followed by 8-10 months with 16% (6), 6-7 months were 5% (2) and few 1-5 months 3% (1).

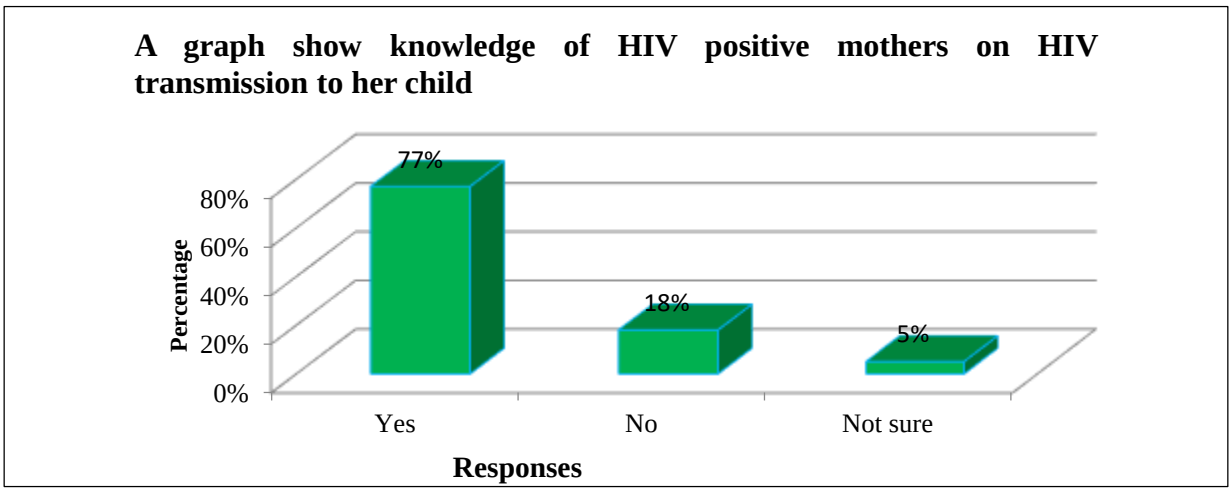

Figure 6: A bar graph showing knowledge of HIV positive mothers on HIV transmission to her child. ***n=44***

Figure 6 above, majority of respondents 77% Yes knew that HIV positive mother can transmit HIV to her child, 18% No (did not know) and at least 5% were not sure.

Table 6: Show knowledge on when mother-to-child transmission occurs

Variables	Frequency (n)	Percentage
Pregnancy	2	5.9%
Labour	12	35.3%
Breast feeding	14	41.2%
All of the above	6	17.6%
Total	**34**	**100.0%**

Table 6 shows most respondent 14 (42.2%) knew that mother to child transmission of HIV occur in breastfeeding, 12 (35.3%) occur in labor, 6 (17.6%) knew all of the above (during pregnancy, labor and breastfeeding) and few 5.9% (2) in pregnancy.

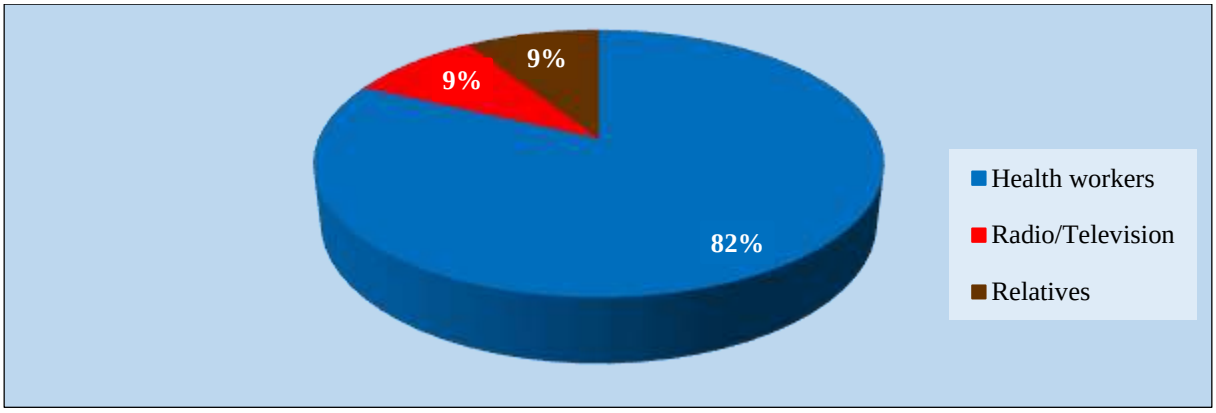

Figure 7: A pie chart showing the source of information for mother-to-child transmission. ***n=34***

The figure 7 above, majority 82% (28) health workers are source of information on mother to child transmission, 9% (3) radio/television and also 9% (3) relatives.

Table 7: Show awareness of respondents on the prevention of mother-to-child transmission of HIV

Variables	Description	Frequency (n)	Percentage
Aware that MTCT can be prevented	Yes	32	72.7%
	No	12	27.3%
	Total	**44**	**100.0%**
If Yes, methods of preventing MTCT	HIV counseling and testing	6	18.8%
	ARVs during pregnancy and breast feeding	12	37.5%
	Delivery from health facility	7	21.9%
	Modified infant feeding	1	3.1%
	Early infant diagnosis of HIV	5	15.6%
	others	1	3.1%
	Total	**32**	**100.0%**

The findings on table 7 above shows, the majority 32 (72.7%) Yes of the respondents were aware that MTCT can be prevented and only 12 (27.3%) No were not aware. On the same table 7, out of 32 respondents who were aware of MTCT prevention, 12 (37.5%) knew ARVs during pregnancy and breastfeeding on methods of preventing MTCT, followed by 7 (21.9%) delivery from health facility can prevent MTCT, 6 (18.8%) HIV counseling and testing while 5 (15.6%) said early infant diagnosis of HIV, only 1 (3.1%) said modified infant feeding and others (avoid sharing sharps).

Attitude of HIV-positive lactating Mothers toward breast feeding their babies

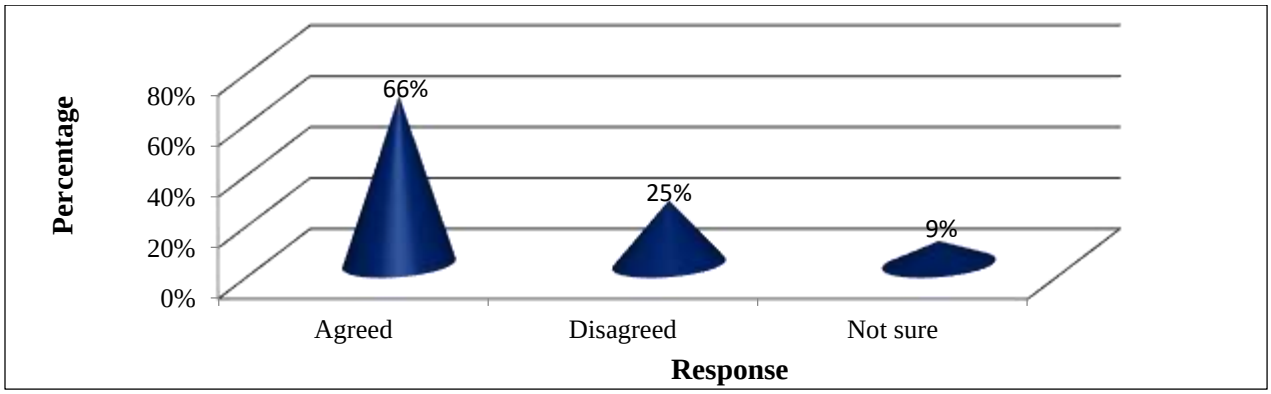

Figure 8: A bar graph showing respondents' belief on HIV prophylaxis drug to her baby for MTCT prevention after birth. ***n=44***

Figure 8 above, the majority of respondents 66% agreed HIV prophylaxis drugs help in MTCT prevention, 25% disagreed and few 9% not sure about HIV prophylaxis drug.

Table 8: Show whether respondents have been giving HIV prophylaxis drug (Nevirapine) to the child after birth

Variable	Frequency (n)	Percentage
Yes	36	81.8%
No	8	9.2%
Total	**44**	**100.0%**

Table 8 shows 36 (81.8%) Yes respondents have been giving HIV prophylaxis drug (Nevirapine) to her child after birth and at least 8 (9.2%) No have not been giving.

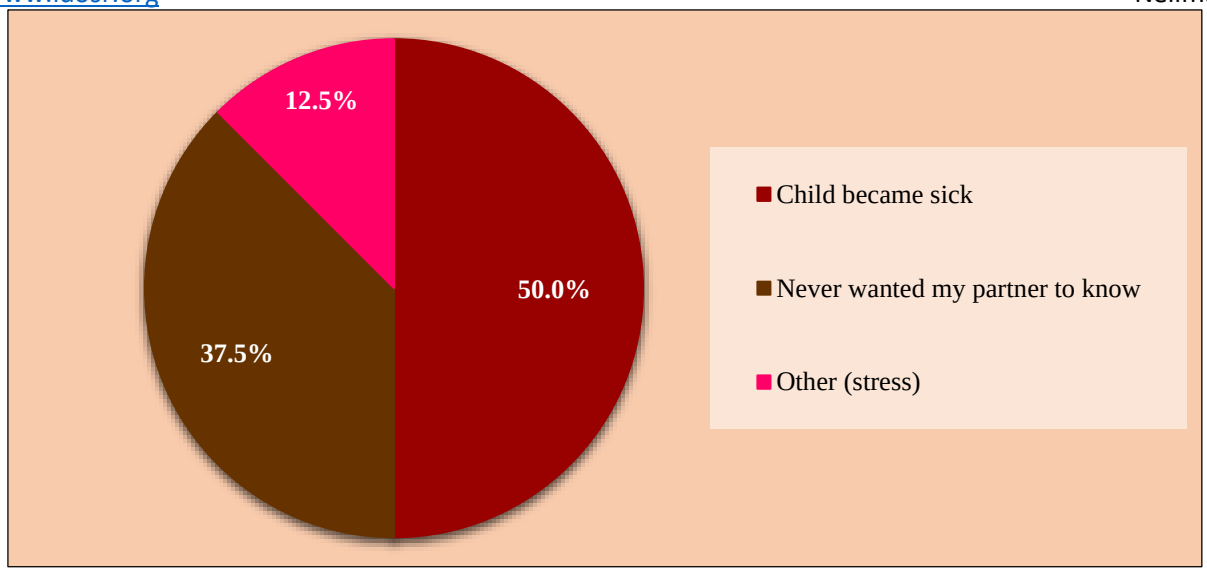

Figure 9: A pie chart showing reasons why stopped giving child HIV prophylaxis drugs ***n=8***

Figure 9 above, most 50.0% respondents' reason was child became sick followed by 37.5% others (stress), and lowest 12.5% said never wanted my partner to know.

Table 9: Show whether respondent disclosed of their HIV status to anyone in the past years

Variable	Frequency (n)	Percentage / (%)
Yes	28	63.6
No	16	36.4
Total	**44**	**100.0**

Table 9 results showed 28 (63.6%) Yes respondents who disclosed their HIV status in the past years meanwhile 16 (36.4%) No respondents who did not disclose.

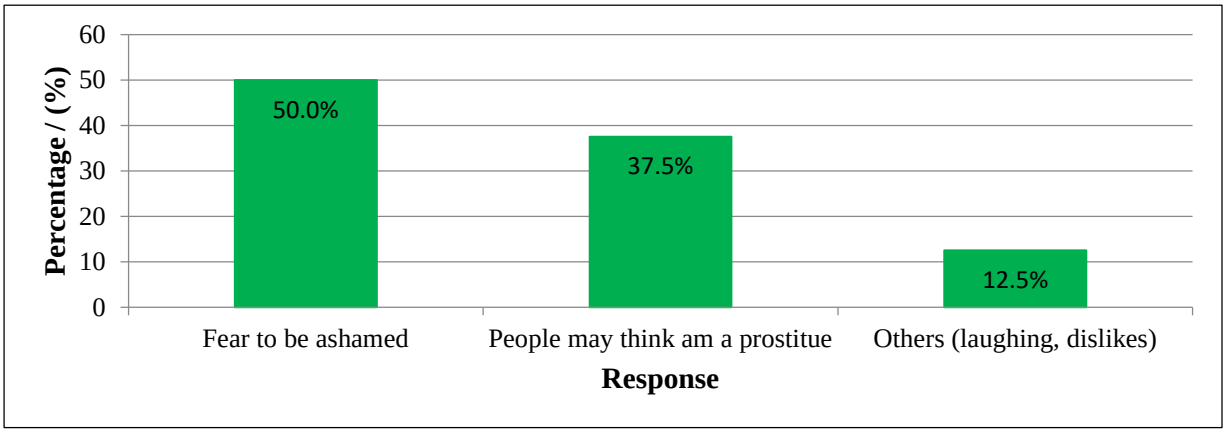

Figure 10: A bar showing respondents' reason for not disclosing HIV status. ***n=16***

Figure 10 above, out of 16 respondents for not disclosing their HIV status, 50.0% fear to be ashamed, 37.5% said people may think am a prostitute and 12.5% others (laughing, dislikes).

Table 10: Show distribution of respondents according to person they disclosed their HIV status

Variable	Frequency (n)	Percentage
Health worker	3	10.7%
Partner	8	28.6%
Others (Aunt, mother, sister)	17	60.7%
Total	**28**	**100.0%**

Table 10 above, out of 28 respondents who disclosed their HIV status in past years most 60.7% others (disclose to aunt, mother, sister), 28.6% to their partner and 10.7% to a health worker.

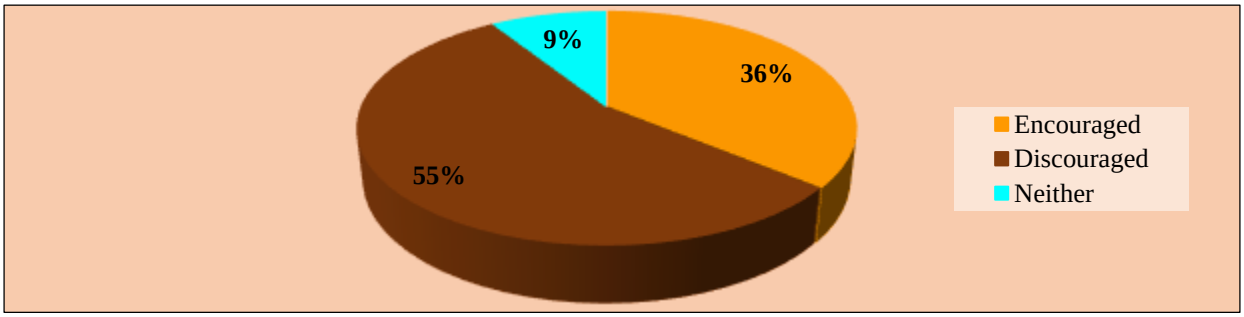

Figure 11: A pie chart showing respondents whether ever encouraged or discouraged any HIV-positive mother from giving her child breast milk. ***n=44***

Most respondent 55% encouraged HIV positive mothers in giving child breast milk, 36% discouraged and least 9% neither encouraged nor discouraged.

Table 11: Show reason for encouraging HIV positive mother on breast feeding

Variables	Frequency (n)	Percentage
Nothing wrong with breastfeeding	9	56%
Because I practice myself	4	25%
Could not afford replacement feeding	1	6%
Others (Doctor told us to breastfeed)	2	13%
Total	**16**	**100%**

Table 11 above, out of 16 respondents who encouraged HIV positive mother on breast feeding, 56% reason were nothing wrong with breast feeding, 25% because I practice

myself, 13% others (Doctor told us to breastfeed) and 6% could not afford replacement feeding.

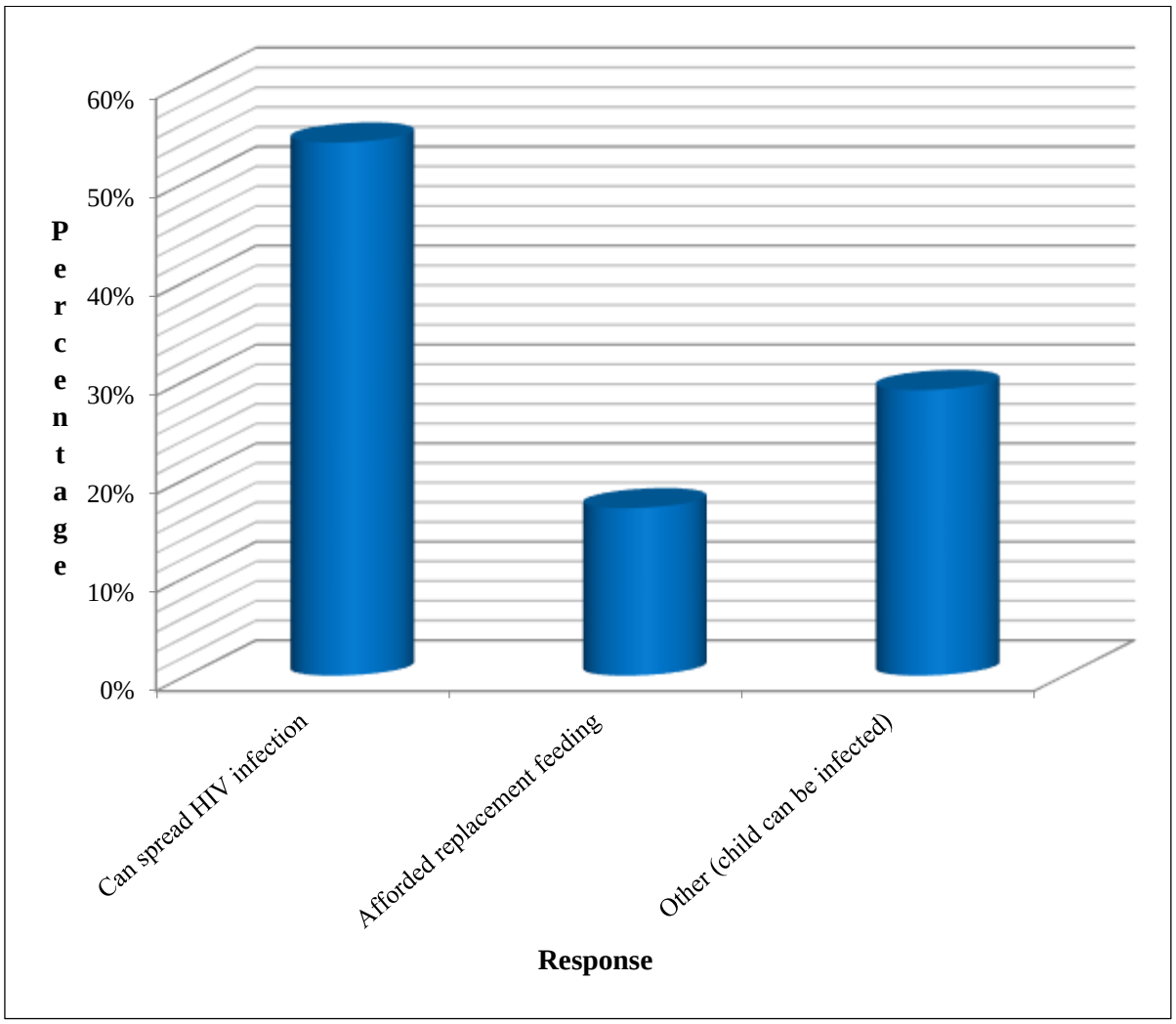

Figure 12: A bar graph showing reasons of respondents who discourage HIV positive mothers on breast feeding. ***n=24***

According to the figure 12 above, results shows out of 24 respondents who discouraged HIV positive mothers giving their child breast milk, 54% said it can spread HIV infection followed by 29% others (reported child can be infected) and least 17% said they afforded replacement feeding.

DISCUSSION

Socio-demographic data

Forty, four (44) interviewed HIV-positive lactating Mothers attending Young Child Clinic at Kabwohe Health Center IV, Sheema District. The highest percentage of 48% were in the age group of 20 to 29, followed by 27% age group 30 to 39, 14% were age group 40 to 49, while the least 7% and 4% were age group 19 or lesser and 50 or more respectively. These age groups are still in reproductive age therefore, need to be empowered with knowledge regarding HIV infection, the risks of transmission to her baby, and the services available to reduce the risk [23]. Nearly 43% were married, followed by those cohabiting with 34%, single was 16%while the least 7% were others (who said they separated or

divorced). Marital status is very important when giving care to HIV positive person in the family. Fifty, nine percent (59%) of HIV-positive lactating mothers went through primary education, 21% went to secondary, and 11% did not go for any formal education (None), while least number of mothers 7% and 2% had tertiary education and University respectively. Education helps in integrating the understanding of HIV infection and the ARVs use for prevention. Sixty-one percent (61%) of HIV-positive lactating mothers were others (who reported that they were Businesswomen, hairdressers, shopkeepers, and waitresses), followed by unemployed with 32%, and few with 7% were employed. This means they are able to support their children financially and their partner. Among the respondent 61% of HIV-positive lactating mothers had children of 2 to 3, 25% had a number of children 4 to 5, least with 7% and 7% who had 1 only and more than 5 respectively. The majority had children age group of 0-6 months (43%), followed by 7-12 months (34%), 13-18 months (14%), 19-24 months (7%), and few with 25 months or more (2%), of which 55% were male and only 45% female.

Knowledge of HIV-positive lactating mothers towards breast feeding their babies

Table 4 When HIV lactating mothers were asked whether they can breast feed their children after delivery 86.4% said Yes, respondents agreed that HIV positive mother can breastfeed her baby after delivery, 9.1% didn't know and few 4.5% No. These findings were much bigger percentage of respondents who agreed HIV positive mother can breastfeed her baby compare to the findings by Ogunba and Agwo [27], who found that only 22% of mothers can breastfeed their children even if they are HIV positive and much smaller than 60% who did not know whether to breastfeed or not. Out of 38 respondents, 82% said the appropriate initiation time of breastfeeding to be 0-6 hours, 11% said 7-10 hours meanwhile 5% said 11-15 hours and only 2% respondent said should be after first day, it concurs with Tanzania National Bureau of Statistics and ICF Macro [28] report. The findings from the study found out that most respondents supported HIV-positive lactating mothers breastfeeding for a period of 11-12 months with 76%, followed by 8-10 months with 16%, 6-7 months were 5% and few 1-5 months 3%. This agreed with the Tanzania National Bureau of Statistics and ICF Macro [28], in Tanzania which reported that almost all infants (97%) are breastfed for some period of time and mothers were reported to initiate breastfeeding within first day however it did not Specify the period of time in terms of months or days despite infant being child below one year. In the Respondent's responses in figure 6 on whether HIV-positive mothers can transmit HIV to her child, 34 (77%) Yes knew, 18% No (did not know) and least 5% were not sure. In addition, out of 34 who knew only 14 (42.2%) knew that mother-to-child transmission of HIV occurs during breastfeeding, 12 (35.3%) knew can occur in labor 6 (17.6%) knew all of the above (during pregnancy, labor and breastfeeding) and few 5.9% (2) during pregnancy. The findings are similar to those of the Swaziland Government (2007) and Maman *et al.* [29]. The percentage during pregnancy (5.9%) of respondents who knew an HIV-positive mother can transmit HIV to her child contradict a finding by Falnes [30], who found most mothers were aware of the possibility of MTCT during labour and delivery, but about 40% were not aware it could occur during pregnancy in Moshi district in the Kilimanjaro region of Tanzania. Results revealed 82% of respondents got information from health workers as their source on mother-to-child transmission of HIV, 9% heard on radio/television and also 9% got from their relatives. Health workers played a greater role in the dissemination of the information to more than a half (82%) of all mothers hence are likely to have good knowledge and good practices regarding breastfeeding by HIV-positive lactating mothers coinciding with Mazia *et al.* [31], who found a significant increase from 1 to 37% was found among the women who attested that the health care provider in the ante-natal clinic advised them to return for an early post-natal visit. On

table 7 above shows, the majority 32 (72.7%) Yes of the respondents were aware that MTCT can be prevented and only 12 (27.3%) No were not aware. Out of 32 respondents who were aware of MTCT prevention, 12 (37.5%) knew ARVs during pregnancy and breastfeeding on methods of preventing MTCT, followed by 7 (21.9%) delivery from health facility can prevent MTCT, 6 (18.8%) HIV counseling and testing while 5 (15.6%) said early infant diagnosis of HIV, only 1 (3.1%) said modified infant feeding and others (avoid sharing sharps). The findings in agreement with a study done by Maputle and Jali [32], slightly disagreed with Moses [33], who found out that women attending the postnatal clinic in an urban university teaching hospital in Nigeria had very high levels of knowledge about transmission of HIV from mother to child, but very low levels of knowledge about the preventive measures.

The attitude of HIV-positive lactating Mothers toward breastfeeding their babies

According to Figure 8 above, 66% of the respondents agreed that HIV prophylaxis drugs help in MTCT prevention, 25% disagreed and 9% not sure about HIV prophylaxis drugs. In addition, the Table 8 result shows 36 (81.8%) Yes respondents have been giving HIV prophylaxis drug (Nevirapine) to her child after birth concurs with Abajobir & Zeleke [34] findings and least 8 (9.2%) No have not been giving because most 50.0% respondents' reason was that their children became sick followed by 37.5% others (stress), and lowest 12.5% said never wanted my partner to know. This finding is similar to Phumzile [35], who found that 4.4% of HIV-positive mothers stopped giving HIV prophylaxis to their children as they believed it prevented them from future drug resistance, while 2.2% stopped treatment as they believed it caused their children to be ill. The results showed bigger percentages compare to that of Phumzile [35]. The study found in Table 9 that 28 (63.6%) Yes respondents disclosed their HIV status in the past years meanwhile 16 (36.4%) No (did not disclose), out of 28 respondents disclosed their HIV status in past years 60.7% others (disclose to aunt, mother, sister), 28.6% to their partner and 10.7% to health worker this slightly lower than that of Sendo, Cherie & Erku [36], results. Of sixteen (16) respondents who have not disclosed their HIV status, 50.0% reported fear to be ashamed, 37.5% said people may think are a prostitute, and 12.5% others (reported that people will laugh or dislike her). It slightly concurs with Hampanda's [37], study which found that the utilization of EMTCT services has stagnated by factors such as pregnant women who did not disclose their HIV status to relatives for fear of stigma, discrimination, and family exclusion. Nevertheless, from Figure 11, 55% of the respondents said they have ever encouraged HIV-positive mothers in breastfeeding their children on breast milk because nothing wrong with breastfeeding (55%), 25% said they have ever practiced by themselves, 13% others (Doctor told them to breastfeed) and 6% could not afford replacement feeding. However, 36% were discouraged because it can spread HIV infection with 54% respondents followed by 29% others (reported child can be infected) and at least 17% said they afforded replacement feeding despite of the least 9% of respondents who neither encouraged nor discouraged from the study, similar to Atwiine *et al.* [23].

CONCLUSION

The reproductive age therefore, needs to be empowered with knowledge regarding HIV infection, the risks of transmission to her baby, and the services available to reduce the risk. HIV lactating mothers were asked whether they can breastfeed their children after delivery 86.4% said Yes, respondents agreed that HIV positive mother can breastfeed her baby after delivery, 9.1% didn't know and few 4.5% No.77% knew HIV positive mothers can transmit HIV to her child, 18% did not know and least 5% were not sure. 72.7% of the respondents were aware that MTCT can be prevented by ARVs during pregnancy and breastfeeding; delivery from a health facility can prevent MTCT; early infant diagnosis of HIV; modified infant feeding; avoid sharing sharps and only 27.3% were not aware. Most respondents 55%

encouraged HIV-positive mothers to breastfeed their children breast milk, 36% discouraged and at least 9% neither encourage nor discourage.

Recommendations

To the Uganda government

- Staff in the ministry of Health concerned with child health should make clear policy to support the HIV mothers on the meaning of exclusive breastfeeding adherence guideline to eliminate the chance of transmitting HIV to the infant.
- Ministry should provide the facility with ARVs better access and utilization of EMTCT services in the rural area.

To the health center

- Health workers need to health educate to explain to mothers the importance of breastfeeding the child on demand for quality breast milk production.
- Routine assessment as follow-up of all HIV mothers who delivered at Kabwohe Health Centre IV should be done to ensure breastfeeding modalities.
- Sensitization of HIV-positive lactating mothers for replacement feeding when it is acceptable, feasible, affordable, sustainable, and safe (AFASS).

To the community

HIV-lactating mothers, irrespective of their age, marital status, religion, education level, and occupation should be encouraged to exclusively breastfeed their infants. They should be counseled on the importance of HIV disclosure, and HIV prophylaxis drugs to their children for EMTCT.

Recommendation for further research

Research beyond this descriptive study (qualitative research) is needed; for instance, research on the factors affecting the utilization of EMTCT services among HIV-positive breastfeeding mothers.

Implications to Nursing Practice

Nurses/midwives play very big responsibility in maternal and child health through the provision of professional services. In most cases the outcome of poor child health is not entirely as a result of their work or rather that of the implementers of the services. Therefore, without nurses/midwives being the responsible persons among these implementers, the interrelationship between them and the mothers in mitigating these phenomena, particularly in child's safety hardly be met in only a single month but progresses slowly with time. However, Health education still emphasized practice by all nurses/midwives for easy delivery of health services particularly EMTCT services.

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