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RESEARCH ARTICLE

ASSESSMENT OF KNOWLEDGE, ATTITUDE PRACTICE TOWARDS PREVENTION OF MOTHER TO CHILD TRANSMISSION OF HIV AMONG PREGNANT WOMEN ATTENDING ANTENATAL CARE IN DURAME GENERAL HOSPITAL, SOUTH ETHIOPIA

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ABSTRACT

HIV/AIDS is currently a major public health problem in Ethiopia and mother to child transmission (MTCT]. The transmission of HIV from infected mothers to babies could occur during antenatal period, as well as during delivery and breastfeeding (postnatal period). Since breastfeeding is essential for child survival, it is also necessary to assess mothers' knowledge attitude and practice towards HIV transmission and its prevention during breastfeeding. Objective of the study is to assess knowledge attitudes and practice of pregnant women attending Durame general hospital regarding PMTCT of HIV infection. A cross sectional, descriptive study was conducted to assess knowledge attitude and practice towards PMTCT among ANC clients in Durame general hospital from November 28, 2018 to June 20, 2018. A systematic random sampling technique was used to select 200 ANC attendants. Data was analyzed using tally sheet, and finally presented with table and graphs. 220 pregnant women were participated in the study which accounts (100%). 215 of the respondents reported that they have heard about HIV/AIDS. 165(75%) know that MTCT of HIV is preventable. 210(95.5%) of them were willing to have HIV test and the reasons mentioned were to protect their partner and child. Finally, it is concluded that most of the ANC clients knew HIV transmissions from infected mothers to their child during pregnancy, delivery and breast feeding and it is preventable.

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INTRODUCTION

Human immunodeficiency virus (HIV) infections and acquired immunodeficiency syndrome (AIDS) have risen to alarming proportions worldwide. HIV/AIDS has claimed millions of lives, inflicting pain and grief, causing fear and uncertainty, and threatening the economy of severely affected nations. According to WHO AIDS, there were 40 million adults and children living with HIV/AIDS worldwide and 5 million people were newly infected with HIV worldwide. Approximately 10% of the world's population infected with HIV lives in sub-Saharan Africa (UNAIDS, 2002; McIntyre and Gray, 2002; Working Group Report of AIDS and infectious disease PMP, 2001; Ministry of Health, 2002). Vertical transmission of HIV can occur before (intra uterine), during (intra-partum), or after delivery (through breast-feeding). It is generally accepted that 30-40% of newborns are infected in uterus as evidenced by positive viral culture or polymerase chain reaction (PCR) tests within the first week of life. The mechanisms of transmission appear to be exposure to infected blood and cervico-vaginal secretions in the birth canal where HIV is found in high titers during late gestation and during delivery. Breastfeeding is also an important transmission route in developing countries (Choi Fung, 2012). The World Health Organization (WHO) promotes a three-pronged approach to reduce MTCT of HIV. Therefore: the prevention of new infections in parents, avoiding unwanted pregnancies in HIV infected women (primary preventions) and preventing transmission of HIV from an infected mother to her infant (secondary preventions) (Working Group Report of AIDS and infectious disease PMP, 2001). HIV is the leading cause of mortality among women of reproductive age worldwide and is a major contributor to maternal, infant and child morbidity and mortality. Without treatment, one third of children living with HIV die before they reach one year of age and over 50% die by the second year of life. In 2008, an estimated 1.4 million pregnant women living with HIV in low-and middle-income countries gave birth, 91% of whom reside in sub-Saharan Africa (Michael, 2008). Many women do not participate in PMTCT programs. Missed opportunities to offer, or low uptake of voluntary counseling and testing (VCT) during routine ANC; refusal to be tested for HIV both by pregnant women and partners; inadequate acceptance of ART offered to HIV+ women at ANC; poor adherence to "take-home" antiretroviral drugs (ARV) for mother and newborn when given to HIV+ women at ANC; insufficient use of facility-based delivery where improved obstetric practices can be used and antiretroviral therapy (ART) for mother and newborn can be supervised; low coverage of newborns with ART even when delivered in

facility; and non-receipt of HIV test results have been studied as barriers to participation. The reason why less than one third of pregnant women who receive HIV positive test results eventually start taking antiretroviral prophylaxis is not examined well (Marleen, 2003; Shitaye Alemu, 2004). MTCT of HIV, which could occur during pregnancy, delivery and breast feeding, is the largest source of HIV infection in children below the age of 15 years and it is responsible for 90% of the child hood infection. And HIV affects approximately 42,000 infants per year all over the world, majority of which are in developing countries (Kapoor and Vani, 2004). MTCT is causing great social problems producing orphans after death of one or both parents due to AIDS. An increasing incidence of HIV in pregnant women would ultimately lead to increased incidence of HIV in children [6, 8]. In Ethiopia the exact prevalence of HIV in children is not known. However, presently more than 65,000 children are supposed to live with HIV/AIDS (Michael, 2008). The risk of acquiring the virus from an infected mother to her baby without any intervention ranges from 15 to 25% in developed countries and 25 to 35% in developing ones which is largely due to breast feeding (BF) practice (Dekock, 2006). This figure can be significantly reduced by the use of prevention of MTCT (PMTCT) services. For instance, use of prophylactic Antiretroviral drug (ARVD) decrease the risk by 50% and Highly Active Antiretroviral Therapy (HAART) reduces the risk to <2% (Working Group Report of AIDS and infectious disease PMP, 2001). In Ethiopia only 3.03% of HIV positive pregnant women received a complete course of ARVD prophylaxis to reduce risk of MTCT of HIV (Katushabe Juliet, 2008). The reason for an increasing MTCT of HIV might include lack of knowledge of mothers on the risks, lack of access to voluntary counseling and testing (VCT) and benefits of preventions like prophylactic ARVDs and infant feeding options (Yikyong Lee *et al.,* 2009; Nompumelel Mtshali, 2010). PMTCT of HIV has been considered as one of the essential prevention interventions to control the epidemic of HIV/AIDS. The services like primary HIV prevention, prevention of MTCT in late pregnancy, labor and BF and giving care and support of HIV infected woman, their infants and family are the most important interventions to prevent MTCT of HIV/AIDS (MOH AIDS in Ethiopia, 2007; Department of Health, 2004; Hailuc; UNAIDS, 2007; FDRE, 2008; Marleen, 2003; Shitaye Alemu *et al.,* 2004).

METHODS

Study area: This study was conducted in Durame general hospital [DGH] which is found in kembata Tembaro zone, SNNP region which is located 130 kilometers away from Hawasa and 361 kilometers from Addis Ababa. Currently the hospital is provided out patient service, Inpatient service, Emergency service, surgery, maternal health service, and different specialty level service to Kembata Tembaro Zone and surrounding Zone peoples. There 315 health professions in the hospital which includes four specialties (Gynecologist, Surgeon, pediatrics, and Internist) 15 general practitioners, 16 midwife, 78 nurse and other professionals. The hospital has 109 inpatient beds, which are divided into medical, surgical, pediatrics, gynecology, Intensive care unit (ICU), Neonate ICU. Regarding the maternal health service, the hospital is providing the service in separate compound and the service provided at specialty includes family planning (short acting, long acting and permanent methods), ANC, PNC, Delivery and Neonate ICU service. The study was conducted from November, 28 to June, 20, 2018 Durame general hospital.

Study design: An institutional based cross-sectional study was conducted to assess knowledge, attitude and practice towards PMTCT of HIV among pregnant women attended ANC in Durame general hospital.

Population: All pregnant women of Durame town administration were considered as source population. The study population was the pregnant women who attend ANC in Durame general Hospital during the study periods.

Inclusion and exclusion criteria: Pregnant women who have attended ANC during data collection period were included in study whereas women who had hearing, speaking and had other critical problems were excluded.

Sample size determination: Sample size: The required sample size was calculated using a single population proportion formula.

$n= (Z\alpha/2)^2 P (1-P)/d^2$

Where;
n= sample size required
Z= standard normal distribution taken as 1.96 at 95% confidence level
P= 84.6% proportion of respondents were knowledgeable that mother-to-child transmission of HIV is preventable [9].
d= margin of error taken as 5%

Thus; $n = (1.96)^2 (0.846) (1-0.846)/ (0.05)^2$

The calculated sample size was 200.

Non-response rate in this study was estimated to be 10% i.e. 20 Therefore, an overall sample size of 220 pregnant women was taken.

To collect data systematic random sampling to technique was applied.

Data collection procedures and quality control: Data was collected by face-to-face interview using a structured questionnaire which was prepared first in English then translated to Amharic and again to English. The data was collected by the investigators. The interview was conducted after clients got the ANC service and each client was interviewed privately and assured on the confidentiality of the interview. The filled questioners was collected and checked for consistency every day by the investigators. To ensure the quality of the data, standard questionnaire English version for actual data collection purpose. Then, the principal investigator was supervising the data collection process. The questionnaire was pretested prior to data collection. The quality of data was assured by properly designing and pre-testing of the questionnaire, proper training of the interviewers and supervisors of the data collection procedures, proper categorization and coding of the questionnaire. Every day, questionnaires was reviewed and checked for completeness by principal investigator and the necessary feedback offered to data collectors in the next morning before data collection.

Data processing and analysis: The collected data was checked for completeness, and arranged then analyzed manually by

using scientific calculator. Finally, the data was presented by text, table's pie chart and graphs.

Ethical consideration: Permission was obtained from Durame general hospital [DGH]. Official letter from Wolaita Soddo University were submitted to Hospital further more; data collectors was secure verbal consent from respondents during data collection.

RESULTS

Socio-demographic characteristics of the study: A total of 220 pregnant mothers were interviewed at the Durame general hospital with response rate of 95%. The median age of the respondents was 28 years. The majority of respondents 193(87.7%) were Kembeta. Out of the total respondents, 152 (69%) were Protestant followers.

Table 1. Socio-demographic characteristics of ANC clients of Durame general hospital, 2018

Variables		Number	Percent
Age group	15-19	9	4.2
	20-24	49	22.9
	25-29	86	40.2
	30-34	45	21
	35 and above	25	11.2
Marital status	Married	209	95
	Single	3	1.4
	Widowed	3	1.4
	Divorced	5	2.3
Ethnic group	Kembeta	193	87.7
	Amhara	7	3.2
	Oromo	7	3.2
	Other	13	5.9
Religion	Protestant	152	69
	Orthodox	44	20
	Muslim	7	3.2
	Others	17	7.7
Family income	<500	27	12.3
	500-999	99	45
	1000-1499	32	14.5
	1500-1999	17	7.7
	>2000	44	20

Educational status: From the total 220 mothers 52.3% were attended primary schools and 7.7% did not attend formal education which was shown in the following graph Figure 1.

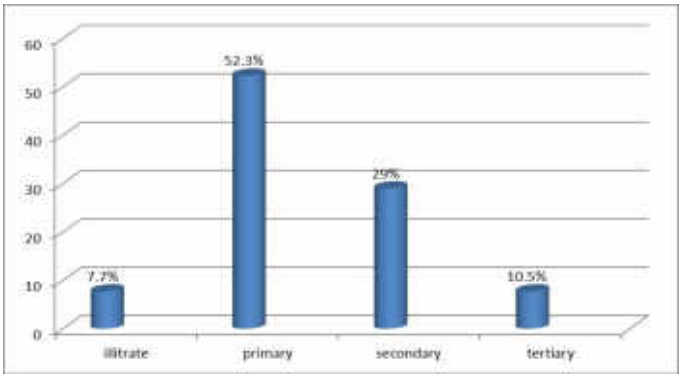

Figure 1.Educational Status of pregnant women attending Durame General Hospital

Knowledge towards MTCT and PMTCT of ANC mothers of durame general hospital: From total of 220 clients Two hundred fifteen (97.7]) of the respondents reported that they have heard about HIV/AIDS. Of the respondents heard of HIV/AIDS 45.4% knew all the major routes of transmission such as unsafe sexual practice, blood contact and MTCT. About 40.8% mentioned two routes of transmission while only 13.6% of them mentioned one. Of all of respondents'75% aware that MTCT is preventable. From them 60.5% mention all [that mean by ART drug, formula feeding, contraceptive, safe delivery services…], 29.5% mention two and only 10% mention one. Of all respondents about (71.8%) knew that a mother can reduce a risk of MTCT of HIV if she decides to breastfeed her baby, 28.2% do not know how to reduce the risk. One hundred eight nine (85.5%) respondents agreed on importance of knowing HIV status during pregnancy. For more understanding look at the following tables.

Table 2. Knowledge of ANC mothers of Durame General Hospital towards MTCT and PMTCT

Variables	Number	Percent
Ever heard about HIV/ADIS		
Yes	215	97.7
No	5	2.3
Routes of transmission		
Mentioned all	100	45.4
Mentioned two	90	40.8
Mentioned one	30	13.6
Aware about MTCT		
Yes	202	91.8
No	18	8.2
Means of transmission		
Mention all	149	67.7
Mention two	65	29.5
Mention one	6	2.7
MTCT is preventable		
Yes	165	75
No	45	25
Preventive methods		
Mention all	133	60.5
Mention two	65	29.5
Mention one	22	10
Aware of reducing risk Transmission if the infected mother decides to BF		
Yes	158	75.8
No	62	28.2
Ever heard about PMTCT		
Yes	138	62.7
No	82	37.3
Aware of HIV/ADIS status during pregnancy		
Yes	189	85.5
No	31	24.1
Aware of MTCT is curse		
Yes	111	50.4
No	109	49.6
Aware of HIV/ADIS infected mother have got pregnancy		
Yes	189	85.9
No	31	24.1

Attitude and practice towards PMTCT of HIV among pregnant women attending ANC in Durame general hospital, 2018: Among the respondents 126(57.3%) think that their husbands will support, 94 (42.7%) think their husband will reject, if HIV positive mothers decide not to breast feed their babies. 140 (63.6%), 82[36.4] think the family will support, and reject if an infected mother decides not to breast feed her baby. And most of them 138[61.8%] Think that the community was reject and 84[38.2%] think that the community will support them. Among the respondents 132 (60%) agreed that BF is nutritionally complete, while 88(40%) of them disagreed. From the total respondents 210(95.5%) were willing to have HIV test for the current pregnancy and 10(4.5%) were not willing to have the test, the reason mentioned were fear of rejection by their husband by 1 (10%), fear of rejection by the community by 2 (20%), thinking that they were free from the virus by 7(70%).

Table 3. Attitude and Practicez towards PMTCT of HIV among pregnant women attending ANC in Durame General Hospital, 2018

Variables	Frequency	Percent
Believe that HIV positive women should have a baby		
Yes	182	82.7
No	38	18.3
Believe that HIV positive women should Breast Feed her baby		
Yes	181	82.3
No	39	17.7
Reasons for saying yes		
Obligation	110	52.4
Can't afford formula milk	67	31.9
Fear of rejection	33	15.7
What if mother decided not to breast fed		
Rejection	94	42.7
Support	126	57.3
What family response		
Rejection	82	36.4
Support	40	63.6
What community response		
Rejection	136	61.8
Support	84	38.2
What problem arise if baby afford formula feeding		
Mention all	145	65.9
Mention two	70	31.8
Mention one	5	2.3
Content with health worker advices regarding MTCT		
Yes	190	86.4
No	30	13.4
Willing to get advice concerning MTCT from …		
Family	10	4.5
Friends	10	4.5
Partners	20	9
Health worker	180	82
Breast feeding alone can have all nutritional value		
Yes	138	60
No	88	40
Willing to have HIV test		
Yes	210	95.5
No	10	4.5
Reason for not being tested		
Fear f rejection by husband	1	10
Fear of rejection by community	2	20
Believe of having no risk faced to acquire the virus	7	70
Reasons for testing		
Mention all	135	64.3
Mention two	60	28.6
Mention one	15	7.1
Ever test HIV		
Yes	174	79
No	36	21
Following ANC in previous pregnancy		
Yes	196	89
No	24	11
Willing to have test in current pregnancy		
Yes	195	88.6
No	25	11.4

DISCUSSION

This study shows the prevalence of Knowledge, Attitude and Practice towards prevention of mother to child transmission of HIV/AIDS among pregnant women attending ANC in Durame general Hospital has a great importance because they are highly vulnerable groups for HIV/AIDS infection. Out of the interviewed women Two hundred fifteen (97.7%) women in this study reported that they have heard about HIV/AIDS, which is comparable with a finding in a study done Addis Ababa town health center 95.9% of respondents had heard about HIV/AIDS (Kapoor and Vani, 2004). This may be due to different organizations and Medias which give information about HIV/AIDS are distributed all over the country. In this study, 29.1% knew all the major routes of HIV transmission (namely unsafe sexual practice, blood contact and MTCT), while 40% mentioned two and only 30.9% of them mentioned one route of transmission. But a study done in Jimma town in 2005, about 20.6% mentioned all the major routes, 61% mentioned two and the rest 17.7% mentioned one mode of HIV transmission (UNAIDS, 2007). This difference may be due to that mothers' knowledge has increased since different organizations are creating awareness on MTCT of HIV from time to time. In this study, one hundred sixty (82.7%) respondents knew that HIV can be transmitted from an infected mother to her unborn baby. This is consistent with findings from a study done at Arba Minch hospital and health center, et al, 2009 by Mesfin Haddis, in which 80% of the mothers knew about prenatal transmission of HIV (Katushabe Juliet, 2008). The similarity between two studies may be due to similarity in strategy and actions taken in the same region. In this study, 202 (91.8%) of respondents knew MTCT of HIV is preventable, 44% mentioned safe delivery service, 11% mentioned abstinence from breast feeding and 36.8 % by giving prophylactic drugs. These results are higher when compared with study conducted in Burkina Faso by O Ky-zerbo, 2008, in which 14% of pregnant women mentioned use of ARV drugs and 11 % by best practices of infant feeding (Nompumelel Mtshali, 2010). This difference may be resulted due to difference between countries' strategies, geographical location, cultures and socioeconomical status. In a study conducted in Hong Kong, china among the pregnant women visiting ANC at regional hospital in Hong Kong, 78.5% wanted to have HIV test to protect their partners was 72.8% to protect their child and 87% to know their HIV status, coming to our results 42.2% to protect their partner, 57.8% to protect their child and 85.5% to know their status (Choi Fung, 2012). This slight decrement in our study may be because of the socio-economic difference between the two areas.

Conclusion

Most of the respondents knew that HIV can be transmitted from infected mother to her child during pregnancy, delivery and breast feeding. It is concluded that knowing sero-status of mother during ANC period is crucial for prevention of mother to child transmission of HIV. Practicing HIV test as routine duties for ANC follow-up had good opportunity to decrease incidence of HIV.

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Declaration: I declare that this article is my original work and all references used for the preparation of this article were cited properly.

REFERENCES

Choi Fung, HIV/AIDS knowledge and risk behavior in Hong Kong Chinese pregnant women, 2012.

Dekock KM, Fowler MG, prevention of MTCT of HIV in resource poor setting, 2006.

Department of Health, 2004. National HIV and Syphillis antenatal sero-prevalence survey. Pretoria: Government Printers.

FDRE, Report on progress towards implementation of the declaration of commitment on HIV/AIDS Feb. 2008.

FHI, Reducing MTCT of HIV HTTP; Ilfhi, org.accessed on 2008.

Hailuc, Assessment of Knowledge, Attitude and Practice among mothers: about VCT and feeding of infants to HIV positive women in Jimma town, Addis Ababa Ethiopia.

Kapoor A, Vani SN. Prevention of Mother- to-child Transmission of HIV. *Indian J pediatric.,* 2004; 71:247-251.

Katushabe Juliet, KAP on pregnant women attending ANC in Mbaleregional hospital, Uganda, 2008.

Marleen, Quaghebeur, Ann; Mwanyumba, Fabian; Mandaliya, Kishor: AIDS - Volume 17(8) May 23, 2003 p 1239- 1242 Mothe.htm; Copyright © Lippincott Williams and Wilkins.

McIntyre J, Gray G. What can we do to reduce MTCT of HIV. *British Medical Journal,* 2002; 26 Jan, No. 7331:218-221.

Michael A. Tolle, Prevention of MTCT of HIV, Nigeria 2008.

MOH AIDS in Ethiopia, 5th edition, 2007, AA Ethiopia.

Ministry of Health (MOH), 2002. *National guideline for voluntary HIV counseling andtesting*. April 2002.Addis Ababa.

Nompumelel Mtshali, Pregnant women's attitude towards us in VCT, 2010, Zimbabwe.

Shitaye Alemu, NuruAbseno, GetuDegu, YaredWondimkun and Solomon Amsalu; A community-based study in northwest Ethiopia. *Ethiop.J.Health Dev.,* 2004; 18(2).

UNAIDS, ADIS epidemic update, 2007.

UNAIDS, Report on the Global HIV/ AIDS Epidemic, December 2002.

Working Group Report of AIDS and infectious disease PMP, and mother to child transmission of HIV, *Acta Pediatric.,* 2001; 90: 1337-1339.

Yikyong Lee, Ms., Graces Marquis, Anna Lartey. Knowledge, attitude about MTCT. a). among pregnant women in Ghana, No 17, 2009.

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