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Fertility Intention and Family Planning Use among People Living with HIV/AIDS in Follow Up Care Western Shoa Zone (ART Treatment Unit)

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Abstract: HIV positive individuals may or may not have intention to have children. They could also have different degrees of utilization and demand for family planning. The desire of HIV infected persons to have children in the future has significant implication for the transmission of HIV to sexual partners or newborns. So this study contributes a lot for program planner or other influential people. The study was designed to determine the fertility desire and contraceptive utilization among People Living with HIV in ART follow up care in western Shoa Zone. A cross sectional institution based study design supplemented by qualitative in-depth interview was done between December to May 2012. The study was conducted in western Shoa Zone (three Hospital; Ambo, Gedo and Gindeberet hospital), western Ethiopia. The study population were all People Living with HIV who had at list one visit to the selected ARV treatment units and age group 18- 49 for women and 18-59 for men and the sample size taken were 462 and data were analyzed by SPPS version 16 computer soft ware. Seventy-eight (50.3%) male and One hundred twelve (36.5%) female respondents expressed the desire for children, giving a total of 190(41.13%) of all respondents. One hundred ninety-nine (43.1%) were using family planning during the study period. Majority of the respondents 150(71.8%) using condom. Those who intended children are those who have no children, married and partner desire for children. Those who use family planning were educated (secondary and post secondary education), married, having children of three or more and those having knowledge on Mother To Child Transmission of HIV. Couples or individuals in need of children should be supported by availing adequate information on Prevention of Mother To Child Transmission service link with the country HIV prevention and control plan and strategy since high number of participants are in need of children.

Keywords: Family Planning Use, Fertility Intention, People living with HIV, Antiretroviral Treatment

1. Introduction and Background

At the end of 2010, an estimated 34 million people were living with HIV globally, including 3.4 million children less than 15 years. There was 2.7 million new HIV infections in 2010, including 390 000 among children less than 15 years (Hracareacion August 2003, Saha. A, April 2009).

Globally, the annual number of people newly infected with HIV continues to decline, although there is stark regional variation. In sub-Saharan Africa, where most of the people newly infected with HIV live, an estimated 1.9 million people became infected in 2010. This was 16% fewer than the estimated 2.2 million people newly infected with HIV in 2001(Saha. A, April 2009).

Introducing antiretroviral therapy has averted 2.5 million deaths in low- and middle-income countries globally since 1995. Sub-Saharan Africa accounts for the vast majority of the averted deaths: about 1.8 million(UNAIDs and WHO December 2007).

Sub-Saharan Africa is by far the region worst affected by the epidemic, With AIDS remaining the leading cause of death there. An estimated 24.7 million adults in Africa are infected with the human immunodeficiency virus(UNAIDs and WHO December 2007) A majority of HIV infections are transmitted through unprotected sexual intercourse or are related to childbirth and unplanned Pregnancies. In the absence of medical intervention the risk of mother to child transmission of HIV is up to 25-40% in Africa(Saha. A, April 2009).

Ethiopia is currently one of the country's with low adult

prevalence of HIV/AIDS 1.5%, 4.2 in urban and 0.6 in rural. Heterosexual HIV transmissions followed by mother to child transmission are responsible for most infection in Ethiopia(FHAPCO 2006).

Providing antiretroviral prophylaxis to pregnant women living with HIV has prevented more than 350 000 children from acquiring HIV infection since 1995. Eighty-six per cent of the children who avoided infection live in sub-Saharan Africa, the region with the highest prevalence of HIV infection among women of reproductive age(UNAIDs and WHO December 2007).

Antiretroviral Therapy (ART) restores health and fertility in people living with HIV and drastically reduces Mother-to-Child Transmission (MTCT) of HIV. As major efforts are under way to expand access to this life-saving treatment in sub-Saharan Africa, thousands of men and women on ART are resuming a socially productive and sexually active lives involving protected and unprotected sex with or without a desire for children. Numerous behavioral and contextual factors interact in a complex way to determine intended and unintended reproductive outcomes among women living with HIV. Age, marital, educational, and socioeconomic status, cultural and religious beliefs, sexual behavior as well as family size and losses, and access to family planning services are documented predictors of pregnancies (Cooper, et al July 2007, Joseph K october 2006, Wosenyelesh T 2006).

In a study done in India most (86 percent) of HIV transmission in the country is through the sexual route, and the youth highly participate in sexual activity, so it is young people who face the greatest burden of unwanted pregnancies and the risk of contracting HIV/AIDS (Saha. A, April 2009, Ron G, 1998).

Some HIV-positive women choose to conceive, despite the chances of a poor pregnancy outcome. Other sexually active, HIV-positive women want contraception. Providers need to understand how to counsel and serve HIV-positive women, and providers should know that some HIV-positive women will not reveal to them that they are infected (Nam, F July 2007).

In different study done in South Africa HIV-positive women are increasingly wanting to have or having children as life expectancy has improved. HIV positive men and women give value to pregnancy and child birth and their desire improved as Highly Active Antiretroviral Therapy (HAART)(Mzikazi, N et al March 2009).

2. Material and Method

A cross sectional institution based study supplemented by Qualitative in-depth interview was conducted in west shoa zone (3 Hospital) that is Ambo, Gedo and Gindeberet hospital. Ambo is the capital town of the zone, and is situated 114km west of Addis Ababa .

There were three hospital and 21 health centers in the zone and all the three hospital currently provide free ARV treatment. Ambo hospital covering the highest number of ART users; more than 7000 users. The number of PLHIV ever enrolled, ever started and on ART in the zone is 8600,7000,2868 respectively (FHAPCO, 2006).

PLHIV who had at least one visit to the selected ART units and age group 18-49 for women and 18-59 for men were the source population. The sample size was calculated using proportion of 40.2 % fertility intention which was obtained from Addis Ababa study (Fantahun T, et al July 2008).This proportion was used to get the sample size at 4.5% marginal error with 95% confidence is used and the total sample size was 462 in addition the qualitative study sample was depended on the level of saturation of information.

The calculated sample size was used to recruit study subjects from ARV treatment units proportional to the unit's client size. The sample size was proportionately allocated to each sex. Eligible persons were included in the study consecutively when they come for ART follow up. The study participants who fulfill the inclusion criteria were included until reaching the required sample size (462). And non response rate was documented but replaced by another client.

For qualitative study, purposive sampling was applied to select study subjects from each institution. In-depth Interview was selected purposively based on their sex, age, Number of children, marital status and education, duration since HIV diagnosis and family planning use after & before HIV Diagnosis.

For quantitative data structured questionnaire was used for data collection pretest was used on 10% of the sample size which is 42 subjects, For in-depth interview, interview guide was used. Data were collected by health officers and Nurses working at ART clinic. The in-depth interview was carried out by the principal investigator supported by assistant after the purpose of the study has been informed to the study subjects.

Data entry was done by EPI info 2000 window and analyzed by SPPS version 17 computer soft ware based on the collected variable. The univariate analysis such as percentages, frequency distribution and appropriate graphic presentations was used for describing data. Bivariate analysis using cross tabulation or bivariate logistic regression was done to see the crude association between the independent variables and the dependent variables. The strength of association between dependent variables and independent variables will be expressed in odd ratio (OR). The final step of analysis was multivariate analysis using multiple logistic regression technique to control confounding. Variables included in the technique was restricted to those significantly related at least to one of the two out comes at the bivariate level. Significance level of 0.05 was taken as a cut point for significance tests, and P-value less than 0.05 was taken to decide that there is a significance association.

In qualitative data all the audio tape record interview was transcribed and translated to English. The translated transcript was reviewed and examined thoroughly and categorized in to primary themes. Then the data reviewed and combined in to broader concepts. Finally the concepts was be refined in to major themes. The ethical clearance was obtained from Ambo University Institution Review Board.

3. Result

3.1. Socio-Demographic Characteristics of the Respondents

A total of 462 participants were included for the study, of these 307(66.5%) female and 155(33.5) were male with sex ratio of 0.5. The mean of the respondents age was 27.2, Ranging from 18-55 years. one hundred forty (30.3%) of the respondents were in the age group of 18-29 years. Two hundred five (44.4%) of respondents have attended secondary school. Majority of the participants were Christians 418(90.5%) and the rest 44(9.5) were Muslims. With regard to occupation 168(36.4%), 80(17.3%), 74(16.0%), 66(14.3%), 44(9.5%), 30(6.5%) of the respondents were daily laborer, merchant, government employee ,house wife , Unemployed and others (Private, students, house servant) respectively. With regard to marital status 280(60.9%), 85(18.4%), 66(14.3%), 31(6.9%) were married, Single, widowed and divorced respectively (Table1).

Table 1. *Socio-demographic characteristics of PLWHAs attending ARV Treatment units Ambo , west shoa ,Oromia, Ethiopia,2013*

Characteristics(n=462)	Number	Percent
Sex		
Female	307	66.45
Male	155	33.55
Age		
18-29	140	30.30
30-39	122	26.41
40+	100	21.65
Illiterate	74	16.02
Read & write	42	9.0
Primary	75	16.23
Secondary	205	44.37
Postsecondary	66	14.29
Current marital status		
Married	280	60.61
Single	85	18.40
Widowed	66	14.29
Divorced/separated	31	6.93
Occupation		
Daily labor	168	36.36
Merchant	80	17.32
Government employee	74	16.02
House wife	66	14.29
Unemployed	44	9.52
Others**	30	6.49

Others**(Private, Students and House maid)

3.2. Sexual Behavior and Condom Use

Out of the total respondents, two hundred seventy (58.4%) of the respondents were practice sexual inter course during the past six months preceding the survey of which 185(68.5%) respondents using condom while they did sex. Majority 113(61.1%) applied it consistently.

Seventy-Seven (28.5%) of the respondents respond as they practice multi-partner sex within the past six months preceding the survey, among these 30(39.0%) of the respondents reported that they were never used condom and 33(41.9%) were used inconsistently with all sex partner (Table2).

Table 2. *Sexual behavior and condom use among PLWHAs attending ARV treatment unit, Ambo west Shoa,Oromia,Ethiopia, 2013*

Characteristics	Number	Percent
Had sex in the past six months(n=462)		
Yes	270	58.44
No	192	41.56
Have used condom(n=270)		
Yes	185	68.52
No	85	31.48
How often use condom(n=185)		
Always	113	61.08
Sometimes	72	38.92
Practice multi partner sex(n=270)		
yes	77	28.52
no	193	71.48
How often use condom with all partner(n=77)		
Always	14	18.18
Sometimes	33	42.86
I never used	30	38.96

3.3. Information on Emergency Contraceptive and Reproductive Health Characteristics

Majority of the respondents 124(26.8%) reported that they had history of abortion by them /their partner and 97(21%) had history of sexually transmitted infection. From those who had history of abortion 93(75.0%) reported that the time of occurrence was before acquiring HIV. Majority of the respondents 356(77.1%) had no information on emergency contraceptive but only 106(23.0%) and from this 106, 75(70.8%) will have intention to use it if something unwanted and unplanned happens and if it is accessible (table3).

Table 3. *Information on Reproductive Characteristics and Emergency Contraceptive Use among PLHIV Ambo, West Shoa ,Oromia, Ethiopia, 2013*

Characteristics	Number	Percent
Any history of abortion(n=462)		
yes	124	26.84
No	338	73.16
When was the time(n=124)		
before acquiring HIV	93	75.0
After acquiring HIV	27	21.8
don't remember	4	3.23
Any history of STI (462)		
yes	97	21
no	365	79
Knowledge about Emergency Contraceptive (n=462)		
yes	106	22.94
no	356	77.06
Intention to use it if required(n=106)		
Yes	75	70.75
No	30	29.25

3.4. Fertility Intention

Out of the total participants, Two hundred eleven (45.7%) of the respondents had at least one child during the study period. and 48(10.4%) have no child. Seventy-eight (50.3%) male and One hundred twelve (36.5%) female respondents expressed the desire for children, giving a total of 190(41.13%) of all respondents. Out of those desiring children 116(61.1%) desired to have one child. One hundred

eight (56.8%) of the respondents planned to have children within one to two years. Among those not desiring children 272 (58.9%) put different reason; 220(47.1%) since they had desired number of children, 104(22.3%) fear of mother to child transmission, 60(12.9%) have adequate number of children , 43(9.2%)health professional advice not to have child and other reason. Almost one-fourth 93 (20.1%) of the respondents expressed that their partner/spouse desire for children (Table 4).

Table 4. *Information on child desire among PLWHAs attending ARV treatment units Ambo, west shoa ,Oromia, Ethiopia, 2013*

Characteristics	Number	Percent
Current no of children you have(n=462)		
No children	48	10.39
One	29	6.28
Two	182	39.39
≥Three	203	43.94
Intention to have children in the future (n=462)		
Yes	190	41.13
No	272	58.87
Time prefer to have child/children(n=190)		
<One year	22	11.58
One-two year	108	56.84
>Two year	54	28.42
Don't know the time	6	3.16
No of children you intend to have in the future (n=190)		
One	116	61.05
Two	54	28.42
Three	13	6.84
>Three	7	3.69
Reason for not wanting children in the future (N=272)		
Have desired no of children	220	47.11
Fear of MTCT risk	104	22.27
Have no adequate income to add another child	60	12.85
Health professional advise not to have a child	43	9.21
Child bearing may further compromise my/my partner health	26	5.57
Other	14	3.00
Partner /spouse want children in the future(n=462)		
Yes	93	20.13
No	107	23.16
Don't have partner	242	52.38
Don't know	20	4.32

The reason obtained from Qualitative data; respondents desire for children because of the intention for perpetuation of life. A woman said: *"When I see kids my heart beat would increase much, since it is a way of building generation I want to replace myself if this is so I will not die."* (28 years old woman married with no children).

In bivriate analysis, the characteristics having post secondary education (Crude OR 4.35(1.57-13.09), Married (Crude OR 2.24, 95%CI 1.87-5.02), being single/non married (Crude OR 25.35, 95%CI 5.06-34.01), having no children (Crude OR 32.97, 95%CI 23.9-75.31) or 1-2 children and partner desire for children (Crude OR 16.1, 95%CI 4.03-43.50) were positively and significantly associated with fertility desire.

In multivariate analysis, those married (Adjusted OR 4.57,95% CI 1.91-9.99), study subjects who had no children (Adjusted OR 13.2,95%CI 7.05-54.41), and partner desire for children Adjusted OR 13.42, 95%CI 4.69-35.72) more likely to desire children than the other counter parts (Table 5).

Table 5. *Associated factor of fertility desire among PLWHAs in Ambo, west Shoa ,Oromia, Ethiopia, 2013*

Variables	Fertility desire		COR(95%CI)	AOR(95%CI)
	Yes n (%)	No n (%)		
Age				
18-29	81(57.9)	59(42.1)	1.61(0.51-2.08)	0.97(0.05-3.31)
30-39	63(28.4)	159(71.6)	0.47(0.03-1.73)	0.26(0.04-1.06)
40+	46(46)	54(54)	1	
Sex				
Male	78(50.3)	77(49.7)	1	
Female	112(36.5)	195(63.5)	0.57(0.02-2.79)	0.43(0.02-1.96)
Educational status				
Illiterate	16(21.6)	58(78.4)	1	
Read and write	12(28.6)	30(71.4)	1.45(0.89-14.7)	1.03(0.06-18.93)
Primary	25(33.3)	50(66.7)	1.81(0.80-12.34)	2.06(0.88-13.29)
Secondary	101(49.3)	104(50.7)	3.52(1.00-6.07)	4.45(0.78-6.27)
Post secondary	36(54.5)	30(45.5)	4.35(1.57-13.09)*	1.99(0.53-11.35)
Marital status				
Married	98(35.0)	182(65.0)	2.24(1.87-5.02)*	4.57(1.91-9.99)*
Single/ Non-married partner	73(85.9)	12(14.1)	25.35(5.06-34.01)*	19.7(0.98-28.31)
Widowed	13(19.7)	53(80.3)	1.02(0.02-1.19)	3.32(0.96-11.12)
Divorced	6(19.4)	25(80.6)	1	
No of children current have				
No child	43(89.6)	5(10.4)	32.97(23.9-75.31)*	13.2(7.05-54.41)*
One	23(79.3)	6(20.7)	14.69(7.08-47.89)*	8.27(3.05-33.73)
Two	82(45.1)	100(54.9)	3.1(1.79-10.23)*	1.23(0.63-4.27)
>=three	42(20.7)	161(79.3)	1	
Partner desire for children				
Yes	81(87.1)	12(12.9)	16.1(4.03-43.50)*	13.42(4.69-35.72)*
No /Don't have part	109(29.5)	260(70.5)	1	

*having significant association in bivariate analysis

3.5. Family Planning Use

Two hundred (43.3%) of participants ever use contraceptive before learn their HIV status and 209(45.2)

were used the contraception after test. Majority of cases using injectable contraceptive160(62.8%) before knowing their status followed by pills 60(23.5%), but after learn their status most using condom 180(78.3%) followed by injectable 32(13.9%) (Table 6)

Table 6. *Distributions of PLWHAs under follow up care by contraceptive ever use before and after HIV test, Ambo ,west Shoa ,Oromia, Ethiopia, 2013*

Characteristics	Before (n) %	After (n)%
Contraceptive ever use	N=321	N=321
Yes	200(43.29)	209(45.24)
No	255(55.19)	244(52.810
don't remember /Am not sure	7(1.52)	9(1.95)
Methods	N= 200	N= 209
condom	25(9.80)	180(78.26)
Pills(ocp),COC	60(23.53)	12(5.22)
Inject able	160(62.75)	32(13.91)
Implants	10(3.90)	7(3.04)
Tubal legation	0	2(0.87)

One hundred ninty-nine(43.1%) were using family planning during the study period. Majority of the respondents 150(71.8%) using condom followed by injectable 32(15.3%) and similarly respondents those who were not using during the study period 160(60.8) shows intention to use in the future and from this 51(57.3%)desire to use condom followed by injectable 18(20.2%) (Table 7)

Table 7. *Distributions of PLWHAs under follow up care by contraceptive use ; current and future use, Ambo ,west Shoa, Oromia, Ethiopia, 2013*

Characteristics	Current use n (%)	Future use n (%)
Contraceptive use	N=462	N=263
Yes	199(43.07)	99(37.64)
No	263(56.93)	160(60.84)
Am not Sure	0	4(1.52)
Methods	N=199	N=77
condom	150(71.77)	51(57.30)
Inject able	32(15.31)	18(20.22)
Pills(ocp),COC	15(7.18)	10(11.24)
Abstain from sex	7(3.35)	3(3.37)
Implants	3(1.44)	4(4.49)
Tubal legation	2(0.96)	3(3.37)

From bivariate analysis, being secondary/post secondary education, having married/single or non married partner, having three or more children , having knowledge on mother to child transmission of HIV has significant association with current family planning use (P<0.03). From multi-variate analysis secondary education, Post secondary education, being married, having three or more children and those having knowledge on mother to child transmission have significant association than others (Table 8)

Table 8. *Associated factor of current FP use among PLWHAs in west Shoa ,Oromia, Ethiopia, 2013*

Variables	Currently Using FP		COR(95%CI)	AOR(95%CI)
	Yes n (%)	No n (%)		
Age				
18-29	90(64.3)	70(35.7)	2.39(1.08-7.84)*	2.57(0.97-8.87)
30-39	81(36.5)	141(63.5)	1.07(0.06-2.94)	1.33(0.65-5.52)
40+	28(28.0)	52(72.0)	1	
Sex				
Male	81(52.3)	74(47.7)	1.75(0.08-3.76)	0.57(0.23-1..23)
Female	118(38.4)	189(61.6)	1	
Educational status				
Unable to read/ write	22(29.7)	52(70.3)	1	
Able to read and write	15(35.7)	27(64.3)	1.3(0.004-2.05)	3.34(0.77-7.52)
Primary	30(40.0)	45(60.0)	1.58(0.09-4.06)	2.00(0.05-6.33)
Secondary	100(48.9)	105(51.1)	2.25(1.91-5.55)*	5.42(2.12-12.23)*
Post secondary	32(48.5)	34(51.5)	2.2(1.53-5.02)*	3.46(1.79-11.94)*
Marital status				
Married	180(64.3)	100(35.7)	16.8(5.21-25.87)*	12.57(6.03-23.43)*
Single/ Non-married partner	13(15.3)	72(84.7)	1.69(1.23-3.34)*	3.23(0.56-7.32)
Widowed	3(4.5)	63(95.5)	0.44(0.05-1.31)	0.73(0.06-2.21)
Divorced	3(9.7)	28(90.3)	1	
No of children current have				
No child	17(35.4)	31(64.6)	1	
One	11(37.9)	18(62.1)	1.11(1.00-2.67)	1.46(0.52-2.4)
Two	74(40.7)	108(59.3)	1.25(0.92-2.03)	2.28(0.36-5.37)
>=three	97(47.8)	106(52.2)	1.67(1.22-4.13)*	4.34(2.26-8.34)*
Partner desire for children				
Yes	40(43.0)	53(57.0)	1	
No	81(75.7)	26(24.3)	4.13(0.92-8.32)	3.35(0.89-7.36)
Don't have part/don't Know	78(29.8)	184(70.2)	0.56(0.08-1.09)	1.23(0.87-5.67)
Knowledge on MTCT of HIV				
Yes	152(49.8)	153(50.2)	2.33(1.27-5.44)*	4.39(1.49-9.76)*
No/ Don't know	47(29.8)	110(70.1)	1	

*Significant association in bivariate analysis

4. Discussion

The study tried to assess fertility intention and family planning use in HIV positive people who are in follow up care. forty-one percent of positive individuals (50.3% male and 36.5 % women) within the reproductive age have an intention to have child. This finding showed that the fertility desire was higher than the study done in Malawi 15% (Hofman, et al 2008), Uganda 18% (Nakayiwa, et al

2006),and Zimbabwe 30.8% (Feldman R, et al July 2000) this difference may be because of the socio cultural difference with our country and/or the fear of transmission of HIV to child and might be also their general health status; however lower than the study done in Cameroon 55% (Marcellin, et al 2010), Nigeria 63% (Oladapo ,et al 2008) and Canada 69% (loutfy MR, et al 2009) ; This may be due to awareness about PMTCT and availability of technology in developed countries but our finding was similar with the study done in Ethiopia 41% (Berhan Y, 2008).

This high fertility intention in our finding produce concern considering its implication for controlling vertical as well as heterosexual transmission. In the absence of medical intervention the risk of mother to child transmission of HIV is up to 25-40% in Africa (Saha A April 2009). Without intervention has 25-50 % risk of transmission from mother to child and in combination of PMTCT method it can be reduced to 2% (Elizabeth A et al 2001). But the less availability of facility for caesarean section, ARV treatment and safe breast substituting foods will keep high figure of vertical transmission.

From this study 85(31.5%) of the respondents practice sex in the past six months but did not used condom, and even if 185 (68.5%)who used condom 72(38.9%) used it irregularly. Beside this from 270(58.4%) who practice sex in the past six months 77(28.5%) practice multi partner sex, and 63(81.8%) used condom infrequently or never used. This has implication for vertical as well as heterosexual transmission of HIV and other STI. It also has implication for the chance of unintended pregnancy among the study participants.

Three hundred fifty six (77.1%) of participants have no knowledge on emergency contraceptive and 75(70.8%) participants who know about emergency contraceptive intended to use if emergency happen and 81.8% of participants practice multi partner sex and never use condom; in addition 55(29.3%) participants respond that their partner is tested and the result was negative. This implies there is a risk of vertical and hetro-sexual transmissions of HIV, unintended pregnancy, HIV-infected birth, increasing number of orphans and resulting non productive generation so it has programmatic implication.

An important factor associated with fertility desire identified in this study is the number of children. Those who have no children 13.2 (95%CI: 7.05-54.41) times more likely to intend children than those who have at least one children. This study also consistent with study done in Addis Ababa, South Africa, Lesotho and Zimbabwe((Cooper, et al July 2007, Wosenyelesh T 2006, loutfy MR, et al 2009 and Mc Clellin, et al 2010) also supported by qualitative result which is attributed to the socio cultural norms that reflects as they need to build generation. While obtain information on PMTCT clients build psychological stability, in addition one of the advantage of antiretroviral therapy is to decrease the viral load so that reduce risk of MTCT of the virus; all these results the participants to initiate for desiring at least one child.

Marital status also associated with fertility desire, Those married 4.57 (95%CI: 1.97-9.99) times more likely to intend children than those who single/divorced or separated. this is consistent with the study done in Addis Ababa and Lesotho(7,28); this is because both parties(Husband and wife) live together and has a capacity to care for children even if one passed the other take care their children and also most of the time they want children as a support during their old age or while their health became deteriorated.

Another predicting factor associated with fertility desire is partner desire for children; those respondents whose partner desire for children is 13.42(95%CI:4.69-35.72) times more likely to intend children than those their partner is not desire children, consistent with the study done in Addis Ababa and Papua New Guinea (Wosenyelesh T 2006, Aska ML et al 2011). this is because if their partner desire for children they wants to satisfy their partner interest they intended to have children and also the support is not left only on them. But from this study age, sex and educational status have no association with fertility desire.

In this study family planning use and future need to use was assessed together with fertility desire. Family planning is important for HIV positive individuals to space and limit births and to prevent unintended pregnancy, so that decreasing HIV positive births irrespective of their fertility desire.

The study shows that 43.3% of study subjects ever used at list one method of family planning before HIV diagnosis. and after test 45.2%, during the study period 43.1% and 37.6 % who were not using family planning during the study period did want to use family planning in the future,. this indicates the continuity of family planning is better in our study area. But the finding is lower than the study done in Addis Ababa which is 48.9% before diagnosis, 53.3% during study period and 39.7% intention to use in the future and United state of America which is 70% used contraceptive during the study period (Wosenyelesh T 2006, Natalie, De 2009).This difference might be because of the socio behavioral difference between the study area and the unavailability of good quality counseling in our study area.

The method choice after test for a majority were condom 78.3% followed by injection 13.9% and before test majority who use family planning were taking injection 62.8% followed by pills 23.5%. It also reflects the presence of method shift from others to condom. Even if condom is one method of family planning it is better if complemented with other family planning methods to boast its effectiveness in preventing unintended pregnancy

Educational status (being secondary or post secondary education) is an important factor which has an association with family planning use. Those educated is more likely to use family planning than the other counter parts; These peoples might have information about family planning and want to optimize their number of child. beside as their level of education increases they were more concerned the risk of transmission of the virus to child.

Marriage/ live together is an important factor which has an association with family planning use. Those married/ live together were 12.57(95%CI: 6.03-23.43) times more likely to use family planning than their counterparts. This is consistent with study done in Ethiopia, Bahi dar(Fantahun T, et al July

2008) this might be those without regular partner might do sex rarely or abstained and they perceive less risk of getting pregnancy.

Number of children is one of the factor associated with family planning use; those respondents having greater than or equal to three children were 4.34 (95%CI:2.26-8.34) times more likely to use family planning than those having less than three children. this is because they have desired number of children and wants to limit themselves. In addition another predictor identified were those having knowledge on MTCT of HIV 4.39 (95%CI: 1.49-9.76) times more in using family planning method than those who have no knowledge.

5. Conclusion

The present study showed that a high number of HIV positive men and women have an intention for children has important implications for the prevention of vertical and heterosexual transmission of HIV. In general those who intended children are those who have no children, married and partner desire for children. The choice of family planning method changed from hormonal ones before HIV testing to condom after knowing HIV sero-status. The most prevalent family planning method among HIV positive individuals were condom. Large numbers of HIV positive individuals are wants to use family planning in the future, which shows broad need. There is greater number of participants have no knowledge on emergency contraceptive implies missed opportunity for prevention of unwanted pregnancy. In general those who use family planning were educated(secondary and post secondary education),married, having children of three or more and those having knowledge on MTCT of HIV.

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