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Abstract

Providing effective reproductive health service to people living with HIV/AIDS requires understanding of their sexual behavior, fertility intention and unmet reproductive needs. Failure of having evidence based responses on gaps identified on these needs might bring an increased HIV incidence, unintended pregnancies, vertical transmission, stigma and discrimination. Facility based cross sectional study was conducted in southwest town of Jimma, Ethiopia. Quantitative data was collected 632 study participants from the ART. A structured interview administered questionnaire was used to collect the data. Verbal and written consent was obtained from each client and data was collected by nurses. Data was analysed by SPSS version 16 windows software. Most of the respondents 341 (54.0

Index terms—**1 Introduction**

he rise in prevalence of HIV/AIDS impedes the struggle health sector of developing nations towards achieving desired goals. 1 Adult HIV prevalence in Ethiopia is lower compared to sub-Saharan African countries. However, the sero-survey in late 2010 showed an estimated adult HIV prevalence of 2.4% (1,216,908 people) which formulate Ethiopia among the countries of largest HIV infected populations in the world. 2 As antiretroviral therapy is more widely available, an emerging issue such as meeting the reproductive health needs of people living with HIV/AIDS who are living longer and healthier becomes a priority. Information about sexual behavior and reproductive health needs of people living with HIV/AIDS is essential to design intervention aimed at safer sexual practice and reproductive health among these people. 3 Unmet needs leads to a high level of unintended pregnancy, vertical transmission and rise in incidence of HIV infection. 4 In a study done in Thailand showed 41% of the PLWHA were having sex with a regular partner of which 28% did not know partner's HIV status. 5 A study done in Tanzania showed more than half of the PLWHA (52%) said they have regular sex without having protection. 6 In a study done in Kenya, nearly half of the respondents had been sexually active and were engaged in risky sexual behavior such as multiple sexual partners, sex with casual partner, and inconsistent condom use. 1 Family planning and HIV/AIDS prevention care, and treatment services are useful entry points for many types of services that people in their reproductive years need. No opportunity should be missed. Sub-Saharan Africa has particular needs for both HIV and family planning services. 4 Family planning offers HIV positive clients the opportunity to prevent unintended pregnancies, prevent mother to child transmission of the virus. 6 However, many reproductive health needs of HIV infected individuals are not met in many countries of the developing world. 7 Family planning can help achieve HIV prevention goals and improve maternal and child health outcomes. Likewise, HIV services can help expand access to family planning services. Family planning and HIV/AIDS programs often serve similar populations, particularly in countries with generalized HIV epidemics driven by heterosexual transmission. 8 Fertility intentions of HIV positive individuals are shaped by a number of conflicting considerations; societal expectation, stigma, and perceived negative caregiver attitude or positive influence of health workers, fear of giving birth to an infected child, having had an infected baby and socio-economic factors are the most important. 9 In a study done in Ghana over 64% of women living with HIV would like to have children in the future, Two-third of the respondents had ever used a method to delay or avoid pregnancy. Among those who say wanting no children the main reasons are concern about own health or partners

health, fear of transmitting the disease to their child and having enough children. 10 Hence this research is done with the objective of this study was to assess the sexual behavior, unmet reproductive health needs and fertility intention of HIV positive women and men on antiretroviral therapy in Jimma, Ethiopia.

II.

Subjects and Methods

b) Measurements

The dependent variables were Sexual risk behavior, unmet contraceptive need and Fertility intention for the last six months prior to the data collection. The independent variables include sociodemographic characteristics (age, sex, income, education, religion, marital status, occupation), sexual characteristics (number of partner, duration of relationship, type of partner, HIV status of partner, disclosure of own and knowledge of partners HIV status) and service related issues (family planning methods and family planning service preferences).

Data were collected by a pre-tested questionnaire which was adopted from different studies. The questionnaire includes demographic, sexual risk behaviors, type of sexual partnership, partner sexual characteristics, disclosure status, disclosure barriers, disclosure outcomes, fertility intention and factors related to fertility.

c) Data analysis and processing

Data collectors and supervisors were trained prior to data collection. Questionnaires were checked daily for error or completeness, and corrective measure will be taken. Quantitative data was analyzed using SPSS version 17 windows based statistical software while qualitative data was analyzed by thematic framework analysis after gathering different data that appeared commonly and grouped under theme.

III.

Results

a) Socio-demographic characters

Most of the respondents 351(54.0%) were males, with a mean age of 29.6 ± 7.98 years, Oromo by ethnicity, married and Orthodox Christians by religion. Majority of the respondents have completed a secondary education 350 (33.6%) and 170 (29.5%) have completed primary education while quarter of them 54(24.9%) finished college or university. Majority of respondents 99 (45.6) receive monthly salary below 1000 Birr or nearly 50 dollars. Most 355 (56.1) of the respondents have one or more children (Table 1).

b) Sexual Behavior

Considering the sexual activity of the subjects in the past six months of study Period 548(86.7%) were active of which 499(80.0) were with regular partner and 78(14.2) of participant reported sex with two or more partner. Casual sex was reported to be 35 (6.4) (Table 2). Unprotected sexual contact was found to be 16.2% among male and 4.4% among females. Disclosure of own sero-status to partner was 90.7% while knowledge of Sexual Partner HIV status was 91.4% (Table 3) Among sexually active, condom use was 494 (90.14%), of which only 385 (70.3%) used condom always the remaining 163 (29.7%) used condom sometimes. The reason mentioned for not using condom always was partner dislike condom 77(14.0%), client/spouse needs to have child 92 (16.8%), partner positive 63(11.5%). Disclosure of own status to partner was 90.7% while STI after being diagnosed for HIV was nearly 12%. c) Family planning utilization and unmet needs of it Among the sexually active females, 229 (82.3%) used contraceptive. The methods they used includes injectable 63(27.5%), Pills 71 (31.0%), condom 84(36.7%) and IUD or implants 11(4.8%). Personal experience (48.9%) was the common reason for current choice of contraceptive methods followed by health education given 31.4% and friends' advice/experience 19.7%. Study subjects who were not used contraception reasoned fertility intention 63.4%, abstinence from sex 33.0 %, fear of drugs 36.6 reaction% and other health related concern 42.9%. About 59.1% disclose their HIV status to family planning service provider. Fear of stigma 17%, fear of breach of confidentiality 34% and failure of knowing its important 56% were the major reason for not disclosing HIV status to the family planning service provider (Table 4) Most of the respondents prefer family planning care would have been provided in Art clinic (88.6%). The major reasons expressed were provider familiarity 32.6%, to reduce stigma 30.1% and to save time 72.6%. Majority of respondents know their right of reproduction 94.6%.

d) Fertility Intention

IV.

10 Discussion

We assessed the sexual behavior, unmet reproductive health needs and fertility intention of HIV positive men and women on antiretroviral therapy in Jimma, south west of Ethiopia by using facility based cross-sectional

study design during December to March 2011. Participants reported the about their sexual behavior they had in their past six months prior to data collection, fertility intention and unmet reproductive health needs.

Among the study subjects those who were sexually active for their last six months prior of study period were 86.7%, higher than the studies done Bahrdar town of Ethiopia (48.9%), South Africa (65 %), and Botswana (62%), but comparable Mexico (87%) [11][12][13][14] . In this study Most 80% reported having regular sexual partner, a similar steady partnership was the observed in a studies done in Addis Ababa (82%) and Botswana (80%) 15, ??6 . Those who reported multiple partners were 14.2, higher than the study done in Addis Ababa and other study done in South Africa 15, ??? . Differences are possibly attributable to the study setting and socio demographic determinants. Concomitantly, the variation also could be due to methodological heterogeneity.

Disclosure of own status to partner was 90.7%, comparable with a studies conducted in Uganda and South Africa which showed 97% and 90% of subjects had disclosed their serostatus 18,17 . However this is far higher than studies done in Illubabor zone of Ethiopia and Rwanda ??9, ??0 . The difference might be attributed to the study period, awareness might increase in due time.

Unprotected sexual contact was found to be 9.8%, much less than the study done in Addis Ababa which revealed 36.9% of the respondents had condomunprotected ('risky') sexual intercourse 15 . Similarly our finding is less than study reports from United States and the South Africa, where the prevalence of risky sex was 30% and 23%, respectively ??1, ??2 . In other studies conducted in Brazil and Uganda, 25% and 35% of HIV positive people attending ART intentionally practiced high risk sex, respectively 23,24 . Variation of this can be socio-cultural issues related to sexual disclosure in the community where having multiple partners is seen with lots of odds and it might be related to the high reported intention to have a child in this study, and the fact that most of the respondents were in a marital relationship, unlike the other studies.

Use of Condom was 90.14%, of which only 70.3% used condom always. The remaining 163 29.7% used condom sometimes. Comparable finding was observed in the study done in Hosana of Ethiopia, and contributes a lot for expansion of AIDS and other sexually transmitted illness doubling the burden 25 . This indicates that the need for establishment of effective safe sex practices and condom use behavior among PLWHAs. The reason mentioned for not using condom were identified, partner dislike condom, fertility intention and partner positive were noted nearly with equal proportion. The same classical reasons were mentioned in different proportion in studies conducted in the Hong konk and Dominican Republic 26,27 . Casual sex was reported to be 35 (6.4), much less than the study done in Botswana which reported 79 (32%) of had casual partner ??6 . Almost 42% respondents did not disclose their HIV status to their family planning service provider. Unlike the study conducted in Addis Ababa the most common reason identified in this study was "I didn't thought its important" 29 .

Family planning use is important for HIV positive individuals like any HIV negative people to space & limit birth and to prevent unintended pregnancy irrespective of their fertility desire [3][4][5] . Furthermore, avoiding unintended pregnancy among HIV positive is one way of vertical transmission reduction 2 . Most contraceptives are safe and effective for use by people with asymptomatic HIV infection as well as people who developed HIV/AIDS disease 5 . Among the sexually active females most (82.3%) used contraceptive. The most common preferred and currently used family planning methods were condom followed by hormonal. Our result agreed with Studies conducted in Kenya, Zimbabwe and a worldwide review by Mitchell and Stephens [28][29][30] .

Desire for children takes many forms, including how many, when, how, with whom, that vary greatly from one context to another. However, despite complex all are the priority reproductive health concern. Among respondents, nearly quarter of the study population has expressed their desire for fertility (23.6%). This finding is lower than the studies done in north eastern region of south wollo (36.4%) and southern part of Ethiopia 33.9% 31, 32 . The study also revealed that current fertility decision is lower than a study conducted in Zimbabwe, and Nigeria 29,33 . Difference in the desire for fertility intention among the above studies could be attributed to difference in study setting, socio-economic variables and the fact that fertility intention is determined by health status, being a phenomenon that is dynamic rather than fixed over time. The major reason expressed in this Most 389 (61.5%) of the study subjects had one or more child. About quarter of the study population has expressed desire for fertility 149 (23.6%). The major reason for desire for fertility were Child bring happiness, Societal, family and friends expectation, to leave something behind. Those who denied desire for fertility reasoned fear of mother to child transmission, to avoid orphaned kid, already had the desired children (Table 5). In the bivariate analysis, among the sociodemographic variables, sex, age, religion, marital status and having live spouse were found significantly associated with fertility decision (Table ??ix) study were "Child bring happiness", Societal, family and friends expectation, "to leave something behind" and were almost reasoned by the above all studies with different proportion.

More than 88% of women living with HIV responded their choice of integrated service of HIV care and Family planning service. The way in which a health care providing system approaches may affect a woman's relative comfort in interacting with the broader health care system. This is evidenced by the major reasoned expressed from respondents was familiarity and belongingness. The integration of FP services into HIV care has been identified as a promising strategy to reduce unmet reproductive health needs of contraception among women living with HIV, and our finding affirm its necessity. Like much of sub Sahara African countries our data was in favor of integrating HIV and family planning services to create a meaningful solutions which may require a fundamental reconsideration of HIV support structures and service delivery paradigms, which might challenge our poor economic settings 34 .

Nearly 95% of the study subject knew their reproductive health highlights as international and national expert consultations on HIV highlights the right of HIV-positive people to decide on freely and responsibly on all aspects of their sexuality, including protecting and promoting their sexual health, be free from discrimination, coercion or violence in their sexual lives and in all sexual decisions, expect and demand equality, full consent, mutual respect and shared responsibility in sexual relationships 9^{1 2 3 4 5}



Figure 1: F

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 a) Abbreviations
 AIDS: Acquired Immune deficiently syndrome
 ART: Anti retro viral therapy
 IUD: Intra uterine Derive
 OCP: Oral contraceptive pills
 PLWHA: People living with HIV,/or manifestations of
 AIDS
 SPSS: statistical package for social sciences
 STI: Sexually transmitted infections
 WHO: world health organization

Figure 2: Table 1 :

2

Sexual Activity	Male N (%)	Female N (%)	Total N (%)
Sexually active	270 (92.8)	278 (81.5)	548(86.7)
Sex with regular partner	230 (79)	269 (78.9)	499(80.0)
Sex with two or more partner	50 (17)	18 (5)	78(14.2)
Sex with casual partner	23 (8.5)	12(4.3)	35(6.4)

Figure 3: Table 2 :

3

ART in Jimma. Dec., 2011	
Variables	N (%)
Unprotected sexual contact	
Male	47 (16.2)
Female	15(4.4)
Sexual Partner HIV status	
HIV positive	489(89.2)
HIV negative	12(2.2)
Don't Know	47(8.6)
Disclosure of own status to partner	
Yes	497(90.7)
No	45(9.3)
History of Sexually transmitted illness after diagnosed for HIV	
Yes	76(11.9)
No	557(90.1)

Figure 4: Table 3 :

? IUD
 ? Reasons for current choice of contraceptive methods Implants n=229 ? health education given ? From friends
 ? ? Reason for not to using contraceptive method all females Personal experience Dual protection (n=112) ?

?	Fear of drugs reaction
?	Health concern
Disclose of HIV status to your FP service provider (n=229)	
?	Yes
?	No

Figure 5: Table 4 :

5

Figure 6: Table 5 :

6

Characteristics	Fertility Yes	Intention No	Odds Ratio COR (Lower -Upper limit)	AOR (Lower -Upper limit)
sex				
Male	82	209	0.62 (0.44-0.91)	0.51 (0.31-0.87)*
Female	67	274	1	
Religion				
Christians	90	401	2.95 (1.94-4.48)	2.74 (1.56-4.21)**
Muslims	51	77	1	
Marital status				
Married	58	283	2.22 (1.52-3.23)	2.29 (1.23, 4.26)**
Un married	91	200	1	
Age (in years)				
15-34	85	40	0.25 (0.16-0.41)	0.21 (0.219, 0.52)***
35-54	64	118	1	
Live child				
Yes	47	342		
No	102	141		

Figure 7: Table 6 :

.1 Acknowledgment

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