

Determinants of Intimate Partner Violence among HIV Positive Women Attending ART Clinic in Fitcha Hospital, Central Ethiopia: An Institution Based Cross Sectional Study

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Abstract

Objective: Intimate partner violence is major health problem of women all over the world and there is shortage of information among HIV positive women's in Ethiopia. Thus, this study aims to assess the prevalence and factors associated with Intimate partner violence among HIV positive women, attending antiretroviral clinic in Fitcha Hospital, Ethiopia. **Methods:** An institution based cross-sectional study was conducted among a total of 311 HIV positive women aged 15-49 years attending Fitcha hospital Antiretroviral Therapy clinic using a questionnaire adapted from WHO multi-country study. Analysis was done using SPSS version 20.0. Descriptive statistics, binary and multivariable logistic regression were computed. **Results:** The prevalence of life time intimate partner violence among HIV positive women was 46%. Physical and sexual violence were experienced by 43.7 and 25.1 percent of study participants respectively. Women living with controlling partner having and those who believe man should show who is the boss were more likely to experience intimate partner violence [(AOR 4.09(1.84, 9.09)) and (AOR 2.95(1.22, 7.16))]. On the other hand, women's capable to raise enough money in case of emergency were 65% less likely to report intimate partner violence [AOR= 0.35(0.17, 0.70)]. **Conclusion:** Antiretroviral Therapy adherence might be complicated as a reason of intimate partner violence. Thus, in order to enhancing Antiretroviral Therapy for patients living with HIV/AIDS, routine screening for intimate partner violence is important. Interventions should consider on increasing awareness of HIV positive women on sexual and reproductive right, gender role and their economic status.

Keywords: Intimate partner violence, HIV/AIDS, Antiretroviral Therapy

Introduction

Intimate partner violence against women (IPVAW) is one of the most common forms of violence women's are facing all over the world [1]. It is a wide spread problem affecting women's rights, health and economic stability including their families and communities [2]. According to World report on violence and health it is defined as "behavior within an intimate relationship that causes physical, sexual or psychological harm, including acts of physical aggression, sexual coercion, and psychological abuse and controlling behaviors." [3].

Studies conducted in many countries indicate that a wide proportions of women are experiencing IPV in some or another form at some point in their life [4,5]. Especially in developing countries like African societies it is deep-rooted, where it is considered as a privilege of men and only domestic matter. In addition, in most of the cases state and law enforcing bodies prefer silence and to pass problem passively particularly when it is occurring within the same family members [6,7].

On the other hand, IPV is one of the commonest factor which predispose women for HIV infection and remains part of their life after they are tested positive. Because of this HIV positive women experience violence with greater severity and frequency than HIV negative women [8,9]. A Systematic Review of the Relationships between Intimate Partner Violence and HIV/AIDS has revealed that the prevalence of experiencing IPV is often high in people with HIV, and also that many people with HIV have experienced several types of IPV [10].

Studies found from different part of the African countries imply that, IPV among HIV positive women is a common phenomenon [11,12]. For example, study done among HIV positive women in Uganda found that lifetime and past 12 months' prevalence of physical or sexual Intimate partner violence (IPV) was 36.6% and 29.3% respectively [13]. In another study conducted in Kano, Northern Nigeria; 22.1% of interviewed women reported domestic violence since being diagnosed as HIV positive [9].

As a consequence of physical or sexual violence, risk of mortality and morbidity among the victim usually increases. Particularly in women living with HIV; IPV affects their health, exacerbates other health conditions and decreases their capacity to make decision on their own general health and reproductive and sexual live [14,15]. On another hand; limited choices the women had, decreased productivity and capacity to negotiate effectively with her husband or partner will increase again their vulnerability to the violence [16]. HIV positive women with violent partners will access health care services poorly and will have decreased adherence to HIV medication [17].

In Ethiopia, although no study was conducted among women living with HIV/AIDS, studies from general women population has shown that IPV is very common all over the country [18,19]. The lifetime prevalence of any form of IPV was ranged from 50 to 78%, with physical and sexual forms being the most common ones [18–21]. Although, some evidence does exist, the prevalence of IPV among HIV positive women and its underlying determinants remain inadequately understood [22]. Therefore, this study examines lifetime prevalence of IPV among HIV positive women, as well as the frequency of specific violent behaviors (physical, sexual and violence). Moreover, factors associated with IPV were identified.

Methods

Study Design and Study setting

The facility based cross sectional study was conducted among HIV positive women attending ART clinic in Fitcha hospital from September 23 to November 6, 2014. Fitcha hospital is found Fitcha town in Oromia Regional State situated about 115km north of Addis Ababa. There were 1 government hospitals and 2 health centers in the town. During the study period; in Fitcha hospital there were 2,283 HIV positive individuals receiving care from which 885 (537 females and 348 male) were on pre ART and 1398 (825 females and 573 male) were on ART [23]. The study participants were all HIV positive women of age 15-49 years, attending ART clinic in Fitcha hospital. HIV positive women who had been in intimate relationship and had made at least one visit to the ART clinic were included in the study.

Sample size determination and sampling technique

The sample size was determined by using the single population proportion formula with the following assumptions: proportion of HIV positive women's prevalence of IPV to be 36.6% which was derived from study conducted in rural Uganda among women living with HIV infection [16], 95% confidence level and 5% margin of error. After corrected for total population and ten percent non-response rate added, the final sample size was found to be 311. All HIV positive women of age 15-49 years presenting to the ART clinic were included in to the study until the required sample size was achieved.

Data collection methods and tools

Exposure to intimate partner violence is measured by binary (ie, yes or no) indicators of physical, sexual, and emotional violence. Married or cohabiting women were asked about ever having experienced intimate partner violence by their husband or partner, whereas formerly married or formerly cohabiting women were asked about intimate partner violence by their most recent husband or partner. Interviewer administered questionnaire was adapted from the World Health Organization (WHO) multi-country Study "Women's Health and Life Experiences Questionnaire" which was developed to use in different cultures and to be cross-culturally appropriate. The questions ask about specific acts (eg, does/did your husband ever slap you, punch you with his fist, twist your arm, etc), which are classified as physical, emotional, or sexual violence. If the woman answered yes to at least one of the questions related to physical, sexual, or emotional violence, the relevant violence indicator was coded as 1; if she answered no to all questions in the set, it was coded 0.

The questionnaire was translated to Amharic language by experts in both languages and was translated back to English by another person to ensure consistency and accuracy. The data collection process was closely supervised by one nurse and the principal investigator. The data collectors and supervisors were recruited based on previous experience on data collection and fluency in the local language. In addition, training was given for two consecutive days on how to interview, handling ethical issues and maintaining confidentiality and privacy. Pre-test was conducted to familiarize enumerators with the administration of interview process and for ensuring consistency. Debriefing sessions were held with the pretest field staff and the questionnaires were modified based on lessons drawn from the pre -test.

Data analysis

After data were checked for completeness, entered into EPI Data version 3.1 and exported to SPSS version 20 for further analysis. Multivariable logistic regression analysis was done to adjust for possible confounding variables. The strength of association was interpreted using the adjusted odds ratio and 95% CI. The criterion for statistical significance was set at a p value of 0.05. Results were presented in text, tables and charts.

Ethical considerations

Ethical clearance was obtained from the ethical clearance committee of the Jimma University. Formal letters of cooperation were written to Fitcha hospital. Written informed consent was obtained from each study participants. In order to keep confidentiality of patients' HIV status nurses working in the ART unit was involved in the data collection and supervision process. A separate room was prepared for interviewing each women. Questionnaire was anonymized, and the respondents was told that they have the right to be involved or not to be involved in the study, and that non-involvement otherwise would not affect the clinical care they might receive. For those clients who have experienced intimate partner violence; they were informed where to get help.

Result

Socio-demographic characteristics

A total of 311 HIV positive women aged 15-49 years were participated in the study with 100% response rate. The mean age of respondents was 34 years with standard deviation of 6.1. One hundred forty (45 %) of the respondents were in the age group of 25-34 years. Women's partner mean age of 42.1 years with standard deviation of 7.8. Majority, (93.6%) were Orthodox Christian and 201 (64.6%) were belong to the Oromo in ethnicity. Regarding education, nearly half of the participants (48.2%) were not able to read and write, while 111 (39.2%) of their partner had educational level of primary school (Table 1).

Among the respondents 178(57.2%) had more than one male partner. One hundred fifty-three (49.2%) women had practiced customary marriage ceremony to formalize their union. Two hundred eighty-one (90.4%) women had been pregnant at least once in their life span; of these, 32(11.4%) had more than five children and 197(70.1%) of their child are from one father. From all women interviewed 115 (37%) had ever used condom though, 67(21.8%) of women faced refusal of condom use from their male partner.

Concerning their health, 52(16.7%) had the most recent CD4 lymphocyte count less than 200; whereas 102(32.8%) had more than 500. Among 295(94.9%) women who were taking ART, 288(97.6%) were on first line while 104(35.3%) had changed ART regimen. Of these 29(9.8%) were skipped their daily medications more than twice in the past one month (Table 1). One hundred eighty-two (58.5%) of the study participants reported that they know their partner's HIV status and of which 136(75.1%) of their current or most recent partner were HIV positive.

Women's perception about gender role and family relations

As shown in table 2 below higher proportion (83.9%) of women reported the opinion that they favored "resolving family problems only by the people in the family". Only 32.5% women agree with the opinion that dictates "It's a wife's obligation to have sex with her husband even if she did not want" (Table 2).

There were different reasons under which hitting or physically mistreating female partner is acceptable by women. In this study, high proportion (92.6%) of women was agreed with one or more justifications for wife-beating. It was exceptionally high for the reason "if the husband found her unfaithful". The proportion of women agreeing with a particular justification was higher among women who had experienced IPV (Figure 1).

The study found that 220(70.7%) women described at least one form of controlling behavior by an intimate partner, the most frequently stated controlling behavior was getting angry when she speaks with another man 261 (83.9%) (See Table 3).

Prevalence of intimate partner violence against HIV positive women

Lifetime prevalence of IPV (physical or sexual or both) was reported by 143 (46%) participants. Seventy (22.5%) of women who experience partner violence suffer from both physical and sexual violence. (Table 4).

Physical violence

The lifetime prevalence of physical violence among HIV positive women was 43.7%. The commonly reported physical violence being slapped or thrown something at them 121(38.9%) followed by being pushed/shoved or pulled their hair 67(21.5%). In terms of severity of physical violence 124(39.9%) were moderate and 93(29.9%) were sever.

Sexual violence

The lifetime prevalence of sexual violence among HIV positive women was 25.1%. About 66 (21.5%) of the respondents reported that their partners had forced them to have sexual intercourse without their interest. Sixty four (20.6 %) of respondents had experienced sexual intercourse because of fear of their partners.

Psychological violence

The lifetime prevalence of physical violence among HIV positive women was 136 (43.7%). The frequently stated psychological violence was insult 115(37%) followed by doing things to scare or intimidate the women on purpose 85(27.3%).

Factors Association with intimate partner violence

Result of binary logistic regression showed that partner age, presence of opportunistic infection, women's history of alcohol use, partner's history of fight with other person, a man should show his wife/partner who is the boss, non-partner beating/physical mistreatment, capable of raising enough money, controlling behaviors history of opportunistic infection and women who drank alcohol were identified as significant predictors of experiencing IPV, while respondents' educational status and occupation were not associated.

In multivariable logistic regression three variables i.e. report of controlling behavior, women who agree with the statement "a man should show who the boss is" and capable of raising enough money were associated.

HIV positive women who reported controlling behavior by intimate partner were four times more likely to experience life time IPV [AOR= 4.09(1.84, 9.09)] than those who did not report controlling behavior. HIV positive women who agree with the statement "a man should show who is the boss" were 2.95 times more likely to experience IPV [AOR= 2.95(1.22, 7.16)]. On the other hand, women who were capable of raising enough money to feed their family at least 4 weeks were 65% less likely to experience IPV [AOR= 0.35(0.17, 0.70)]

(Table 5).

Discussion

The prevalence of physical violence is similar with findings from southwestern Ethiopia (41.1%) and Butajira (48%), a rural region of Ethiopia. But, the proportion of women reporting sexual violence is lower than these two studies which were 50.1% in southwestern Ethiopia and 58% in Butajira, Ethiopia [21,23,24]. This difference in sexual violence may be due to the reason that previous studies were conducted among general population and in this study the data collectors were those who participate in the routine care of the women which may introduce social desirability bias.

Lifetime prevalence of IPV was reported by 143 (46.0%) of the respondents which is higher than study conducted among HIV infected women attending Kabale regional hospital HIV treatment center in Uganda which was found to be 36.6% [13]. The variation may be due to differences in how women in different cultural contexts might respond to questions about violent experiences.

The prevalence of physical and sexual violence of this study is almost similar with Brazilian study on IPV in HIV-infected users and those seeking services for an HIV infection test which was 52% for physical violence; and 28% for sexual violence [24]. In another study done in northern Nigeria, the prevalence of Women Living with HIV/AIDS who experienced physical violence (30.0%) is lower than this finding; in addition to socio economic difference this discrepancy may be due to Nigerian study used different measurement adopted from the shortened Conflict Tactics Scale to assess physical violence [12].

Slapping a woman or throwing something at her was the commonest form of physical violence, likewise in a study carried in western Ethiopia [20]. Similarly WHO multi country study put women were being slapped or having something thrown at them as the most common act of violence [5].

In this study a high proportion (92.6%) of women were agreed with one or more justifications for wife-beating. This finding is higher than Ethiopian Demographic and health Survey 2011, 68% of women believe husbands are justified in beating their wife for at least one reason [23]. Similarly, in rural southwest Ethiopia, women who experienced IPV were more likely than the non-abused women to believe that a man could be justified to hit his partner when she failed to complete her work or when she did not obey him [21].

According to findings from this study, women who experienced controlling behavior by their intimate partner have an increased IPV prevalence which was also the case in study conducted in Southwest Ethiopia [21]. The reason might be controlling behavior of the intimate partner may trigger conflict ending with violence. The majority of the women agreeing with the statement it is important for a man to show his wife/partner who is the boss also indicates as they already accepted men dominance over women.

Household income as a factor was shown a difference in experiencing violence. In this study it was also found that women who were capable of raising enough money to feed their family for at least 4 weeks had experienced IPV lower. It has been Repeatedly reported that women who are economically dependent are less able to leave abusive partners resulting to prolonged exposure to IPV than women who were capable of raising enough money [25,26].

Several limitations of this research must be acknowledged. First, using a convenience sampling method only from HIV positive women who were attending ART clinic in a single urban hospital might decrease generalizability of the study to all HIV positive women. There are also limitations related to subjectivity and underreporting due to the sensitive nature of the subject under the study; added with the social desirability of the responses. There may have introduction of recall bias because some of the questions require respondent's recall of events. In addition, the partner characteristics used in the analysis are based upon women's reports rather than direct reports from the partners themselves. However in designing the questionnaire, possible effort was made to ensure that women would be able to disclose any experiences of violence.

Conclusion

The reported prevalence of physical and sexual violence during pregnancy and in their life time in this study is high. The presence of IPV in this extent during pregnancy among HIV positive women may indicate women's and infant's probability of suffering from this problem, even it can increase risk of both acquiring and transmitting HIV/AIDS. This makes prevention of IPV against HIV positive women important part HIV prevention and control programs.

On the other hand, having male partner with controlling behavior trigger women's experience of IPV. From this stand, the implication of these findings is that women living with HIV/AIDS should be routinely screened for intimate partner violence as pregnancy entails another chance to do for intervention. Thus, efforts should be considered on increasing awareness of HIV positive women on sexual and reproductive right and their economic status.

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Competing interest

All authors read and approved the final manuscript.

Author's contribution

LD, TT, BA: Conceived and designed the protocol, Performed the data collection and Contributed for data analysis and wrote the paper. All authors contributed equally to this work

Reference

1. World Health Organization. Intimate partner violence. Underst addressing violence against women [Internet]. 2012;1–12. Available from: http://apps.who.int/iris/bitstream/10665/77432/1/WHO_RHR_12.36_eng.pdf
2. United Nations General Assembly. Declaration on the Elimination of Violence against Women [Internet]. 1993. Available from: <http://www.un.org/documents/ga/res/48/a48r104.htm>
3. Daher M. World report on violence and health. J Med Liban [Internet]. 2002;51(2):59–63. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/15298158>
4. Unifem. Not a minute more [Internet]. Ending violence against women. 2003. 1-114 p. Available from: [papers2://publication/uuid/F5BAF84A-1FB0-4C8B-8A22-83BDB4EA9204](http://publications.unfem.org/publication/uuid/F5BAF84A-1FB0-4C8B-8A22-83BDB4EA9204)
5. Garcia-Moreno C, Jansen H a FM, Ellsberg M, Heise L, Watts CH. WHO Multi-country Study on Women's Health and Domestic Initial results on prevalence. Genetics [Internet]. 2005;151(1):277–83. Available from: <http://www.cabdirect.org/abstracts/20063002089.html>
6. Uthman OA, Lawoko S, Moradi T. Factors associated with attitudes towards intimate partner violence against women: a comparative analysis of 17 sub-Saharan countries. BMC Int Health Hum Rights [Internet]. 2009;9(1):14. Available from: <http://bmcinthealthhumrights.biomedcentral.com/articles/10.1186/1472-698X-9-14>
7. Okemgbo CN, Omideyi AK, Odimegwu CO. Prevalence, patterns and correlates of domestic violence in selected Igbo communities of Imo State, Nigeria. Afr J Reprod Health [Internet]. 2002 Aug;6(2):101–14. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/12476722>
8. Hale F, Vazquez M. Violence Against Women Living with HIV / AIDS : A Background Paper.
9. Iiyasu Z, Abubakar IS, Babashani M, Galadanci HS. Domestic Violence among Women Living with HIV / AIDS in Kano, Northern Nigeria. Afr J Reprod Health. 2011;15(3):41–50.
10. Kouyoumdjian FG, Findlay N, Schwandt M, Calzavara LM. A Systematic Review of the Relationships between Intimate Partner Violence and HIV / AIDS. 2013;8(11):1–25.
11. Higgins JA, Hoffman S, Dworkin SL. Rethinking gender, heterosexual men, and women's vulnerability to HIV/AIDS. Am J Public Health. 2010;100(3):435–45.
12. Shi C-F, Kouyoumdjian FG, Dushoff J. Intimate partner violence is associated with HIV infection in women in Kenya: a cross-sectional analysis. BMC Public Health [Internet]. 2013;13:512. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3702473&tool=pmcentrez&rendertype=abstract>
13. Osinde MO, Kaye DK, Kakaire O. Intimate partner violence among women with HIV infection in rural Uganda: critical implications for policy and practice. BMC Womens Health. 2011;11:50.
14. For G, Sector H, Officers P. ADDRESSING GENDER-BASED VIOLENCE THROUGH USAID'S HEALTH PROGRAMS. Program. 2006;(July).
15. The Global Coalition on Women and AIDS. Issue Brief : Stopping violence against women and girls for effective HIV responses. Aids [Internet]. 2011; Available from: <http://www.womenandaids.net/CMSPages/GetFile.aspx?guid=c72d38e4-dfdb-441c-ad81-159866cc1491&disposition=inline>
16. World Health Organization. Violence Against Women and HIV / AIDS : Setting the Research Agenda. 2000.
17. Human Rights Watch. Hidden in the Mealie Meal: Gender-based Abuses and Women's HIV Treatment in Zambia. Hum Rights [Internet]. 2007;19(18). Available from: <http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Hidden+in+the+Mealie+Meal#0>
18. Guruge S, Bender A, Aga F, Hyman I, Tamiru M, Hailemariam D, et al. Towards a global interdisciplinary evidence-informed practice: intimate partner violence in the ethiopian context. ISRN Nurs [Internet]. 2012;2012:307271. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3363987&tool=pmcentrez&rendertype=abstract>

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19. Yigzaw T, Yibrie A, Kebede Y. Domestic violence around Gondar in NorherWest Ethiopia. *Ethiop J Heal Dev.* 2004;18(April).
 20. Abeya SG, Afework MF, Yalew AW. Intimate partner violence against women in western Ethiopia: prevalence, patterns, and associated factors. *BMC Public Health* [Internet]. 2011;11:913. Available from: <http://ovidsp.ovid.com/ovidweb.cgi?T=JS&CSC=Y&NEWS=N&PAGE=fulltext&D=medl&AN=22151213>
 21. Deribe K, Beyene BK, Tolla A, Memiah P, Biadgilign S, Amberbir A. Magnitude and correlates of intimate partner violence against women and its outcome in Southwest Ethiopia. *PLoS One* [Internet]. 2012;7(4):e36189. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3338498&tool=pmcentrez&rendertype=abstr>
 22. Hassen F, Deyassa N. The relationship between sexual violence and human immunodeficiency virus (HIV) infection among women using voluntary counseling and testing services in South Wollo Zone, Ethiopia. *BMC Res Notes* [Internet]. 2013;6(1):271. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3751471&tool=pmcentrez&rendertype=abstr>
 23. Central Statistical Agency Ethiopia, MEASURE DHS - ICF Macro. Ethiopia Demographic and Health Survey 2011: Preliminary Report. 2011;1–29.
 24. Schraiber LB, Barros CRS, de Castilho E a. Violence against women by intimate partners: Use of health services . *Violência contra as Mulh por parceiros íntimos Usos serviços saúde* [Internet]. 2010;13(2):1–9. Available from: <http://www.scopus.com/inward/record.url?eid=2-s2.0-77955647250&partnerID=40&md5=515c66c24b97ab3bd56b15f71e8a7b2b>
 25. Paris WL, Wang T, Laumann EO, Pan S, Luo Y. Intimate partner violence in China: National prevalence, risk factors and associated health problems. *Int Fam Plan Perspect* [Internet]. 2004;30(4):174–81. Available from: <http://www.scopus.com/inward/record.url?eid=2-s2.0-14944368083&partnerID=tZOtx3y1>
 26. Fageeh WMK. Factors associated with domestic violence: a cross-sectional survey among women in Jeddah, Saudi Arabia. *BMJ Open* [Internet]. 2014;4(2):e004242. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3927923&tool=pmcentrez&rendertype=abstr>

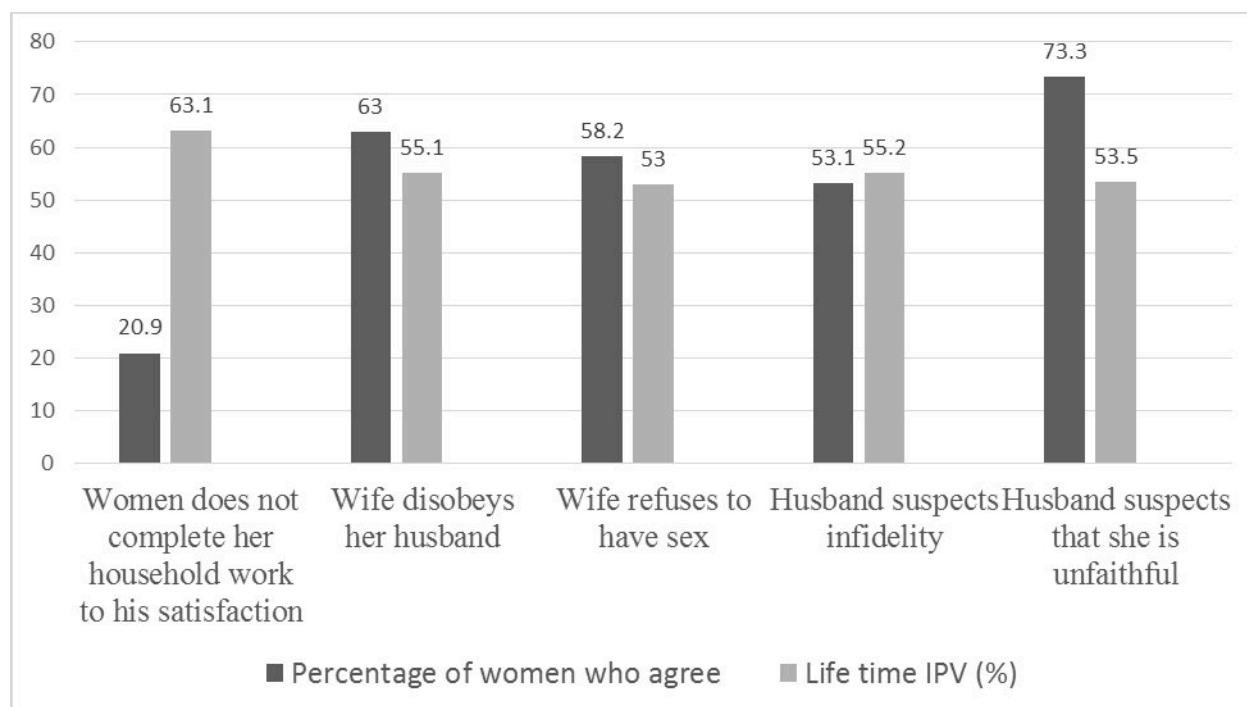


Figure 1: Women's justifications for wife-beating and IPV among HIV positive women attending ART clinic in Fitcha Hospital, Fitcha town, Ethiopia, 2014

Table 1: Socio-demographic characteristics of HIV positive women attending ART clinic in Fitcha hospital and their partner, Fitcha town, Ethiopia, 2014

Characteristics N=311	Frequency (%)
Age	
15-24	14(4.5)
25-34	140(45)
35-44	139(44.7)
45+	18(5.8)
Current marital status	
Single	168(54)
Currently married	122(39.2)
Currently having regular partner	15(4.8)
Living with man not married	6(1.9)
Educational status	
Can't read and write	150(48.2)
Grade 1 to 8	104(33.4)
Grade 9 to 10	38(12.2)
Grade 11 and above	19(6.1)
Partner educational status	
Can't read and write	75(24.1)
Grade 1 to 8 grade	111(35.7)
Grade 9 to 10 grade	32(10.3)
Grade 11 and above	65(20.9)
Don't know/don't remember	28(9)
Partner Age	
Less than 34	38(12.2)
35-44	125(40.2)
45-54	96(30.9)
55-64	18(5.8)
65+	34(10.9)
Partner Alcohol Use	
Every day or nearly every day	95(30.5)
Once or twice a week	79(25.4)
Less than twice a month	30(9.6)
Never	92(29.6)
CD4 count	
Less than 200	52(16.7)
200 to 350	85(27.3)
350 to 500	72(23.2)
Greater than 500	102(32.8)
Opportunistic infection	
Yes	233(74.9)
No	76(24.4)
Skipping ART medication	
Less than two times	266(85.5)
From three to five times	19(6.1)
More than six times	10(3.2)

Table 2: Distribution of women's opinions about gender roles and family relations HIV positive women attending ART clinic in Fitcha hospital, Fitcha town, Ethiopia, 2014

Women's opinions	Agree (%)	Disagree (%)
Family problems should only be discussed with people in the family	261(83.9)	50(16.1)
If a man mistreats his wife, others outside of the family should intervene	219(70.4)	92(29.6)
It is important for a man to show his wife/partner who is the boss	215(69.1)	94(30.5)
A good wife should obey her husband even if she disagrees	149(47.9)	158(50.8)
It's a wife's obligation to have sex with her husband even if she do not want	101(32.5)	206(66.2)

Table 3: Distribution of controlling behavior by an intimate partner and IPV among HIV positive women attending ART clinic in Fitch hospital, Fitch town, Ethiopia, 2014

Controlling behaviors	Frequency (%)	Intimate partner violence	
		Yes	No
He gets angry if you speak with another man	161(51.8)	104(64.6)	57(35.4)
He is often suspicious that you are unfaithful	138(44.4)	101(73.2)	37(26.8)
He insists on knowing where you are at all times	134(43.1)	90(67.2)	44(32.8)
He ignores you and treats you indifferently	128(41.2)	86(67.2)	42(32.8)
He expects to ask permission before seeking health care	107(34.4)	65(60.7)	42(39.3)
He tries to keep you from seeing your friends	106(34.1)	78(73.6)	28(26.4)
He tries to restrict contact with your family of birth	50(16.1)	36(72.0)	14(28.0)

Table 4: Percentage distribution of the type of intimate partner violence among HIV positive women attending ART clinic in Fitch hospital, Fitch town, Ethiopia, 2014

Type of violence	Frequency N=311	Percentage
Psychological violence: at least one type	136	43.7
1. Insulted or made you feel bad	115	37.0
2. Scare or intimidate you	85	27.3
3. Belittled or humiliated	76	24.4
4. Threatened to hurt you or someone you care about	63	20.3
Physical violence: at least one type	136	43.7
Moderate physical violence	124	39.9
1. Slapped or thrown something	121	38.9
2. Pushed or shoved or pulled your hair	67	21.5
Sever physical violence	93	29.9
3. Kicked or dragged or beaten you up	63	20.3
4. Hit with fist or kicked	61	19.6
5. Threatened with or used a weapon	57	18.3
6. Choked or burnt	23	7.4
Sexual violence: at least one type	78	25.1
1. Physically forced sexual intercourse	66	21.2
2. Had sexual intercourse because afraid	64	20.6
3. Forced to do something sexually degrading/humiliating	22	7.1

Table 2: Factors associated with IPV among HIV positive women attending ART clinic in Fitch hospital, Fitch town, Ethiopia, 2014

Characteristics	Life time IPV (%)		COR (95%CI)	AOR (95%CI)
	Yes	No		
Respondent age				
Less than 34	75(48.7)	79(51.3)	1.24(0.79, 1.94)	1.09(0.49,2.47)
Greater than 35	68(43.3)	89(56.7)	1.00	1.00
Educational status				
Can't read and write	67(44.7)	83(55.3)	1.11(0.60, 2.05)	1.72(0.62, 4.74)
Primary school	52(50)	52(50)	1.38(0.78, 2.64)	1.54(0.54, 4.37)
High school & above	24(42.1)	33(57.9%)	1.00	1.00
Partner age				
Less than 34	16(42.1)	22(57.9)	1.64(0.68, 3.92)	2.52(0.59, 10.72)
35-44	56(44.8)	69(55.2)	2.77(1.39, 5.50)*	2.73(0.89, 8.43)
45-54	42(43.8)	54(56.2)	1.75(0.86, 3.57)	2.27(0.76, 6.84)
Greater than 55	16(30.8)	36(69.2)	1.00	1.00
Partner educational status				
Can't read and write	41(54.7)	34(45.3)	1.51(0.83, 2.78)	1.29(0.53, 3.14)
Primary school	50(45)	61(55)	1.03(0.59, 1.78)	1.49(0.66, 3.34)
High school & above	43(44.3)	54(55.7)	1.00	1.00
Opportunistic infection				
Yes	118(50.6)	115(49.4)	2.09 (1.22, 3.60)*	1.40(0.63, 3.12)
No	51(67.1)	25(32.9)	1.00	1.00
Women's history of alcohol use				
Drink alcohol	75(52.4)	68(47.6)	1.62(1.03, 2.54)*	1.61(0.76, 3.40)
Never drank alcohol	68(40.5)	100(59.5)	1.00	1.00
Partners history of fight with other person				
No	85(39)	133(61)	0.39(0.23, 0.64)*	0.90(0.39, 2.14)
Yes	58(62.4)	35(37.6)	1.00	1.00

(Continued)

Table 7: (continued)

Family problem discussion				
Agree	109(41.8)	152(58.2)	0.34(0.18, 0.64)*	0.61(0.22,1.68)
Disagree	34(68)	16(33)	1.00	1.00
A man should show his wife/partner who is the boss				
Agree	113(52.6)	102(47.4)	2.48(1.49, 4.15)*	2.95(1.22,7.16) *
Disagree	29(30.9)	65(69.1)	1.00	1.00
Non partner beating/physical mistreatment				
Yes	48(70.6)	20(29.4)	3.71(2.08, 6.65)*	2.15 (0.86, 5.40)
No	95(39.3)	147(60.7)	1.00	1.00
Capable of raising enough money				
Yes	39(33.1)	79(66.9)	0.42(0.26, 0.68)*	0.35(0.17, 0.70) *
No	104(53.9)	89(46.1)	1.00	1.00
Controlling behaviors				
Yes	126(57.3)	17(18.7)	5.84(3.23, 10.83)*	4.09(1.84, 9.09)*
No	94(42.7%)	74(81.3)	1.00	1.00
Condom use				
Yes	85(39.0)	133(61.0)	0.76(0.48, 1.21)	0.59 (0.27, 1.28)
No	58(62.4)	35(37.6)	1.00	1.00

* Significant at $p < 0.05$