COLLEGE OF MEDICINE AND HEALTH SCIENCE

SCHOOL OF PUBLIC HEALTH

PREVALENCE AND ASSOCIATED FACTORS OF INTIMATE PARTINER VIOLENCE AMONG HIV-POSITIVE WOMAN ATTENDING ART CLINICS HAWASSA CITY PUBLIC FACILITIES, SIDAMA, ETHIOPIA, 2024.

BY-ENDRIYAS SAMATO

MAY, 2024

HAWASSA, ETHIOPIA

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A THESES TO BE SUBMITTED TO HAWASSA UNIVERSITY COLLEGE OF MEDICINE AND HEALTH SCIENCE SCHOOL OF PUBLIC HEALTH FOR PARTIAL FULFILLMENT OF MASTERS PROGRAM IN REPRODUCTIVE HEALTH

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MAY, 2024

HAWASSA, ETHIOPIA

ACKNOWLEDGEMENT

I would like to extend my appreciation to the school of Public Health for giving me opportunity for conducting this study. I also like to express my deepest gratitude to my advisors Mr Tegene Legese (MPH/RH, Assistant professor) and W/rt Samirawit Fantaw (MPH, Lecturer) for their constructive advices and comments in the entire research proposal to until to this step of thesis. My acknowledgement also extends to those all who provided me information I need for the preparation of this proposal and time of data collection.

SCHOOL OF GRADUATE STUDIES

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We, the undersigned member of the examiners of the open defence by Endriyas Samato have read and evaluated his thesis entitled ''PREVALENCE AND ASSOCIATED FACTORS OF INTIMATE PARTNER VIOLENCE AMONG HIV-POSITIVE WOMEN ATTENDING ART CLINICS IN HAWASSA CITY PUBLIC FACILITIES SIDAMA, ETHIOPIA'', and examined candidate. This is to certify that the thesis has been accepted for the execution in partial fulfilment of the requirement for the Master's degree.

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ABBREVATIONS AND ACRONYMS

ART	Anti-Retroviral Therapy
AIDS	Acquired Immunodeficiency Syndrome
CDC	Centers for Disease Control and Prevention
EDHS	Ethiopian Demographic Health Survey
GBV	Gender Based Violence
HIV	Human Immunodeficiency Virus
IPV	Intimate Partner Violence
IVAWS	Intimate Violence Against Women Survey
IPVAW	Intimate Partner Violence Against Women
PNC	Prenatal Care
PMTCT	Prevention of Mather-to-Child Transmission
RH	Reproductive Health
SDG	Sustainable Development Goal
SIPV	Sexual Intimate Partner Violence
SSA	Sub Saharan Africa
VAW	Violence Against Women
WHO	World Health Organization
HUCSH	Hawassa University Comprehensive Specialized Hospital

Abstract

Background: Intimate partner violence against women is a global public health issue, causing harm to close friends or intimate partners. One in three women has experienced violence, but it's underreported. This study aims to fill this gap by examining the prevalence and associated factors of intimate partner violence among HIV-positive women.

Methods: Facility based cross-sectional study with quantitative data collection methods was applied at Hawassa City public Healthcare facilities from March to April; 2024.The sample size will be determined by using openEpi. The facilities were selected by simple random method, and the sample. Data was collected by trained data collectors and collected by face to face interview by using electronic materials. Data was collected by Kobo toolbox and exported to SPSS version 26 and STATA version 16 for analysis. Both bivariate and multivariable logistic regression analyses and to analysis was applied. In the multiple logistic regression analysis, a less than 0.05 P-value was considered statistically significant.

Result: A total of 554 women responded completely, for a response rate of 98.75%. The mean age of the respondent was 36.08 (SD±7.58) years. In the past 12 months prevalence IPV, who had experienced one of the physical, emotional or sexual questions among HIV positive women was 40.3% (95 CI 36.3, 44.6). Psychological/emotional violence was the most common form, with prevalence of 36% (95%CI 32.9- 41.0%), followed by sexual violence 26 %(95% CI 22.9-30.1%) and physical violence 23.8 %(95% CI 20.2-27.4%). Associated factors among HIV positive women include: disclosing HIV status for a partner or husband [AOR= 1.99, 95%CI (1.057, 3.747), partner alcohol drunk [AOR= 2.755, 95%CI (1.428, 5.313).

Conclusion: Intimate partner violence among HIV positive attending ART clinics in study areas were considered to be high and identified as a public health issue. The important factors identified as significantly associated to the IPV among HIV positive women who attending ART clinics were disclose HIV status for partner or husband, Partner who drinks alcohol, women with three or more children, family monthly income less than 2000, history of faced stillbirth and being currently married women were significantly associated.

Recommendations: Policy makers and concerned stake holders need to design screening tool to identify IPV in the health facilities, and intervention program implementation should be amended at the grass root level of the community accordingly.

Key words: Intimate partner violence, Hawassa, HIV/AIDS.

1. Introduction

1.1 Background

The definition of intimate partner violence against women (IPVAW) is conduct of physically, sexual, or psychological violence likely to cause harm from a current or former close person or intimate partner(1).Acts of physical violence, such as slapping, hitting, kicking and beating, Sexual violence, including forced sexual intercourse and other forms of sexual coercion and Emotional (psychological) abuse, such as insults, belittling, constant humiliation, intimidation (e.g. destroying things), threats of harm, threats to take away children(2).

Worldwide, intimate partner violence is a serious public health concern that affects many individuals. Abuse on all fronts physical, sexual, and emotional is a serious public health and human rights concern(3). IPV has been observed that male intimate partners or ex-partners are the most frequent perpetrators of violence against women, and there is substantial public health concern over the detrimental effects of traumatic events on health(4).IPV is associated with increased mortality, injury and disability, worse general health, chronic pain, substance abuse and reproductive disorders (5).

According to the World Health Organization (WHO), one in three women say they had at some point in their life suffered sexual violence(6).Approximately 20% of women have experienced sexual assault, more than one in three have experienced psychological abuse, and 99% of women who have experienced IPV have undergone financial or economic abuse(7). Millions of women suffer as a result of the pervasiveness of violence against women in all nations and cultures(8).While the issue is widespread worldwide, it is particularly severe in underdeveloped nations, such as Sub-Saharan Africa, where 36% of cases of intimate partner violence occur(9).

In Ethiopia, girls and women face many forms of gender-based violence rooted in unequal power dynamics between women and men, which hinder women's and girls' development, health, livelihood, and physical and mental well-being(8).

1.2 Statement of the Problems

One of the most prevalent types of violence against women is intimate relationship violence, which consists of controlling behaviors by an intimate partner as well as physical, sexual, and emotional abuse. It happens everywhere and among all social classes, religions, and cultural groups (7). Around the world, women are disproportionately affected by intimate partner violence (IPV); one in three of them claim to have experienced IPV at some point(4). It is a widespread issue that has an impact on women's rights, well-being, and financial security, as well as their families and communities (5).

According to a World Health Organization study that was based on household data from the International Violence Against Women Survey (IVAWS) and the Demographic and Health Surveys (DHS) across 19 countries, the prevalence of physical IPV during pregnancy was 2.0–5.0% in Asia, 1.8–6.6% in Europe, 4.1–11.1% in the Americas, and 3.8–13.5% in the Africa continent(8).According to EDHS 2016, about 34% of ever-married reproductive women have experienced some form of spousal physical, sexual, or emotional violence(10). In addition, the magnitude of IPV among pregnant women in Ethiopia was 28.74%, according to a multilevel analysis of the 2016 Ethiopian demographic and health survey report(11).

A study done in SSA found that there is a higher frequency of physical, sexual, and emotional abuse among women living with HIV/AIDS, and that this violence is more common among HIV positive women(11, 12).

Ethiopia has made changes to laws to promote gender equality and address gender-based violence, including the Criminal Justice Law and the National Women Policy(13). However, the Male Norms Initiative has not been successful in reducing intimate partner violence. The Ethiopian health system lacks comprehensive IPV prevention guidelines and interventions, and social conventions normalize violence, making it difficult for victims to receive comprehensive GBV care and treatment (14-16).

There are very few studies conducted on IPV amog HIV-positive reproductive-age women’s. Even in the area where studies are available for HIV-positive women and studies on IPV among

HIV-positive women, the availability of studies for general women is less, which makes it difficult to intervene with the problem accordingly. Knowing the prevalence and determinants of intimate partner violence is crucial for treating both the HIV/AIDS pandemic and intimate relationship violence (IPV). These two global epidemics and their outcomes require integrated and collaborative strategies. The IPV is not studied multi-dimensionally and is not updated in my study area. Therefore, the purpose of this study is to assess the prevalence and associated factors of intimate partner violence among HIV-positive women in Hawassa City public health facilities.

1.3 Significance of study

Intimate partner violence is one of the public health problems in Ethiopia, as there is a high prevalence of intimate partner violence. The risk of intimate partner violence varies from location to location, and Hawassa, Ethiopia, lacks enough research and documentation on the incidence and contributing factors of this type of violence and on its risk factors. Additionally, the risk and prevalence of intimate partner violence are worse in HIV-positive women, and special attention should be given to this age group of women. It is also hard to find studies that depict the factors that influence HIV-infected women and expose them to intimate partner violence. The main aim of this study will be the completion of an MSC in RH from Hawassa University. Additionally, it will add value to the current literature and could be a source of information for future studies of similar nature. This study may also help health workers to give emphasis to this violence and provide appropriate care for the victims. Most importantly, this will be a voice for those women who are voiceless.

2. Literature review

2.1 Prevalence of Intimate partner violence

According to a WHO multi-country survey, the percentage of women who had ever been in a relationship and suffered from physical or sexual abuse, or both, at the hands of an intimate partner, ranged from 15% to 71%, with the majority of cases falling between 29% and 62%.Women in Japan were the least likely to have ever experienced physical or sexual violence, or both, from an intimate partner, while women in Bangladesh, Ethiopia, Peru, and the United Republic of Tanzania reported the highest rates of violence against them. These women lived in provincial (mostly rural) settings(16). The most prevalent type of violence against women worldwide is intimate partner violence (IPV). The frequency of IPV varies throughout nations and areas because of methodological, cultural, and geographic factors(17).

As to the WHO research, 27% of ever-married or partnered women aged 15-49 had experienced physical or sexual violence in their lifetime, and 13% had experienced violence within the last year. The projected lifetime prevalence of this violence among women who have ever been married or in a partnership and who are between the ages of 20 and 49 is still rather high, at 26–28%. IPV was present in 24% of adolescent girls who had ever been married or in a relationship. The least developed countries have the highest rates of IPV; lifetime prevalence was 22% and 37%, respectively(18).

The assessment of cross-sectional studies' findings indicated a strong correlation between women's HIV infection and physical intimate partner violence. Comparably, findings from cross-sectional research showed that IPV of any kind and the combination of physical and sexual abuse were strongly linked to HIV infection in females(17). Similar to a study on HIV positive pregnant women, a cross-sectional study conducted in South Africa on women living with HIV found that 21% of the women had encountered at least one act of IPV in the previous 12 months, and 48% had experienced two or more types, most frequently both. IPV was experienced by 56.3% of people psychologically and by 19.6% physically(17, 18).

The prevalence of IPV among HIV-positive women was found to be 29% (emotional), 22% (physical), 13% (severe physical), and 18% (sexual), according to a Cameroonian study(19). Another long-term study in South Africa on intimate partner violence (IPV) in HIV-positive women indicated an increase in physical violence after six months. Prenatal physical violence rates were 20.0% and psychological IPV was 55.5%; postnatal physical violence rates were

20.3%, 21.2%, and 46.6%, respectively)(20). According to a Kenyan study on HIV-positive women, there has been 100% emotional abuse, 20% controlling behavior, 15% sexual violence, and 17% physical violence(21) A study done in in Uganda HIV positive women the prevalence of IPV was 29%(22) According to a study done in Zimbabwe, IPV was more common among women who were HIV positive (40.5%) than among women who were HIV negative (30.5%) after the status was disclosed(23).

According to a multi-level analysis done based on 2016 EDHS data Over 34.1% of study participants were subjected to IPV (24). The prevalence of lifetime sexual violence, lifetime partner violence, and last-year partner violence was found to be 34.6%, 32.3%, and 10.5%, respectively, in a South Wollo zone study on the relationship between HIV and sexual violence. Partner violence and lifetime sexual violence committed by another perpetrator were also linked to HIV(25).HIV positive pregnant women face more violence than HIV negative pregnant women, according to a case control study done in Addis Ababa. Sexual violence among HIV cases was 16.5%, greater than it was among controls (4.4%)(26).

A cross-sectional study involving 396 women attending Adama Town who were on antiretroviral therapy (ART) revealed that the prevalence of IPV was 45.5% over the course of a lifetime and 32.3% of current cases (27) This prevalence is based on an approximation of 46% found in a cross-sectional research among HIV-positive women at Fiche Hospital. In this study, the rates of physical and sexual violence were 43.7% and 25.1%, respectively(28). In a Wolita sodo study, the overall prevalence of intimate partner violence (IPV) among women living with HIV was found to be 61.3% for positive women and 58.09% for negative women. Compared to HIV negative women, who had a prevalence of 36.62%, HIV positive women had a greater prevalence of emotional violence in the last 12 months (44.44%)(29).

2.2 Physical Violence

According to WHO multi-country study on women's health and domestic violence against women 13-61% was reported ever having experienced physical violence by a partner.(30)

In another WHO multi-country survey In Ethiopia, 19% of women who had experienced abuse reported having injuries, whereas in a specific region in Peru, that number rose to 55%. Trauma was linked to extreme physical aggression. More than 20% of women who had ever been harmed in Brazil, the province of Peru, Samoa, Serbia and Montenegro, and Thailand said they had been hurt more than five times. While most injuries were considered minor, such as cuts, abrasions,

bruises, punctures, and bites, more catastrophic injuries, such fractured bones and injuries to the ears and eyes, were reasonably prevalent in certain situations. In Namibia, Samoa, urban Thailand, provincial Peru, and the United Republic of Tanzania, at least 20% of women who had ever sustained an injury said it was to their eyes or ears. More over 25% of women who had ever been hurt in Bangladesh, Ethiopia, provincial Peru, and Samoa said they had lost consciousness.(16).

According to study conducted in Nekemit town on Intimate partner violence against HIV-Positive women on ART follow-up and associated factors in public health facilities was 33 (7.86%) of women reported having kicked, pulled, and beaten up in their lifetime, while nearly one in five (87.71%) claimed having been slapped or thrown something at them. 63 (15%) and 25 (5.95%) of these same acts were recorded since they were diagnosed with HIV, respectively. 99 women, or over 25%, reported having been the victim of physical abuse at least once in their lifetime (31). According to cross-sectional study in Gondar town the prevalence of current physical violence among HIV positive women was 54.8% (32). Another similar study in Adama town the physical violence was 27% (27). According to comparative cross-sectional study among both HIV positive and Negative women the lifetime of prevalence of physical violence 45.34% and 40.20% was respectively (33)

2.3 Psychological Violence

According to a study done in India on Intimate Partner Violence and HIV Infection Among Married Indian Women show that the 22.8% experienced psychological IPV(34).According to cross-sectional conducted study in Nigerian population on Prevalence and correlates of intimate partner violence against HIV-seropositive pregnant women show that the psychological violence being the most common form of violence reported (27.5%)(35).

Facility based cross-sectional study in South Africa on the value of intervening for intimate partner violence in South African primary care show that the emotional/psychological violence was 82.7%. Each woman experienced on average eight forms of abuse over extended periods. Emotional abuse was commonest and ranged from verbal abuse to restricted contact with family and friends, to control of the woman's freedom to pursue activities(36). A study done in Gonder town on Intimate partner violence and associated factors among HIV positive women attending antiretroviral therapy clinics show that emotional violence was(48.9%)(32) In other Cross-sectional comparative study in wolaita zone on Intimate partner violence against women living

with and without HIV and the associated factors show that the prevalence of emotional/psychological violence was 50.6%(33).

2.4 Sexual Violence

According to WHO Multicounty Study on Women's Health and Domestic Violence against Women show that the prevalence of Sexual violence was overall, the proportion of women reporting partner sexual assault varied widely, with most countries falling between 10% and 50%. The figures ranged from 6% in Serbia and Montenegro to 6% in Ethiopia. A study done in in Nigerian population on Prevalence and correlates of intimate partner violence against HIV-seropositive pregnant women show that the Sexual violence was 9.8%(35).

A study done in Cameroon on IPV against HIV-positive Cameroonian women: prevalence, associated factors and relationship with ART discontinuity show that the prevalence of IPV was 18% (sexual violence)(19). The percentage of women who were coerced into having sex by physical means varied between 4% in Serbia and Montenegro and 46% in Ethiopian and Bangladeshi provinces. In the previous 12 months, over one-third of Ethiopian women claimed to have been physically coerced into having sex against their will by a partner(37).

A study done in Gonder town on Intimate partner violence and associated factors among HIV positive women attending antiretroviral therapy clinics show that sexual violence was (51.1%)(32).The similar study done in Adama town on Current intimate partner violence and associated factors among sero-positive women attending Adama town ART Clinics show that the sexual violence was 22.7% (27).

2.5 Factors Associated with Intimate Partner violence

2.5.1 Socio demographic factors

A comprehensive analysis on the predictors and facilitators of intimate partner violence (IPV) in Sub-Saharan Africa (SSA) revealed that work and marital status were two of the characteristics associated with an increased risk of experiencing IPV(38). Additionally, a study conducted in Ruanda revealed that characteristics such as marital status and occupation were associated with greater rates of intimate partner violence (IPV) among women who did not hold official employment(39).

According to a recent systematic assessment of urban women in SSA, women with only a primary education and partners over 40 experience higher levels of violence than women with

secondary education and higher (40). On the other hand, age and financial status of women were factors that contributed to IPV in SSA's HIV-positive population. A South African study on pregnant women living with HIV revealed that IPV was also influenced by marital status, monthly income, and level of education (11, 18). Married women are more likely to experience intimate partner violence (IPV), according to a Ugandan study on HIV-positive women(22).

The factors that contributed to IPV in Ethiopia, according to a multi-level analysis based on EDHS data, were the victim's age at the time, her employment status, her partner's educational status (a partner without any education showed higher IPV prevalence), her place of residence, her family's monthly income, and her wealth index(24). In Wolaita Sodo, women aged 29 to 39 reported greater rates of intimate partner violence (IPV) than women aged 18 to 28. Additionally, women with lower incomes (29).

A different study on intimate partner violence in Ethiopia discovered a substantial correlation between intimate partner violence experiences and age and rural residency.(41-43). Intimate partner violence (IPV) was found to be significantly associated with by a woman whose partner was a farmer among sero-positive women in a facility-based cross-sectional study among women using antiretroviral therapy (ART) in Ethiopia. Additionally, in studies conducted in India and the United States, IPV was found to be significantly correlated with educational status (27, 41, 44).

2.5.2 Reproductive factors

According to a facility-based cross-sectional nationwide survey done in Uganda to evaluate intimate partner violence among women living with HIV, women who had three or four biological children had a considerably higher likelihood of having experienced IPV(45).

According to a South African study, there is a significant association between intimate partner violence and not having children in pregnant HIV positive women(17).

2.5.3 Medical characteristics

The woman was HIV positive but her boyfriend was discordant, therefore she was less likely to encounter intimate relationship violence, according to a facility-based cross-sectional nationwide survey done in Uganda to evaluate intimate partner violence among HIV positive women(45).

After HIV test results were disclosed to pregnant women in Harare, Zimbabwe, and Oshogbo, Nigeria, a cross-sectional study was conducted to evaluate intimate partner violence. The results

showed significant relationship between intimate partner violence and HIV status disclosure(46, 47)

The use of condoms and contraceptives by ART users was associated with intimate partner violence, according to an institution-based study carried out in Ethiopia to evaluate the prevalence of intimate partner violence and related factors(33, 48).

2.5.4 **Substance use of husband/partner**

According to a systematic research, prior abuse, a spouse's drug misuse, and attitudes about intimate partner violence were among the victim characteristics that predicted and enabled IPV in Sub-Saharan Africa (SSA)(49).

Alcohol usage and intimate partner violence (IPV) have been associated according to a systematic review and meta-analysis conducted in Sub-Saharan Africa(50). According to a cross sectional study in south Africa in HIV positive pregnant women associated factors for IPV were maternal alcohol use(17).

A cross-sectional study conducted in an institution in Togo to evaluate intimate partner sexual and physical violence among women living with HIV revealed a significant association between substance abuse, increased frequency of suicidal thoughts and attempts, and intimate partner violence among these women(51).

Research conducted in Rwanda, Ethiopia, and Wolita Sodo, Ethiopia revealed that women who drank alcohol with their husbands or partners had a significantly higher prevalence of domestic violence than women who did not drink. Additionally, women whose partners had ever physically fought with another man were at a higher risk of experiencing intimate partner violence (IPV) (24, 29, 52).

2.5.6 Conceptual frame work

According to the framework, four factors were identified as factors those affects intimate partner violenceand pregnancy adverse outcomes.

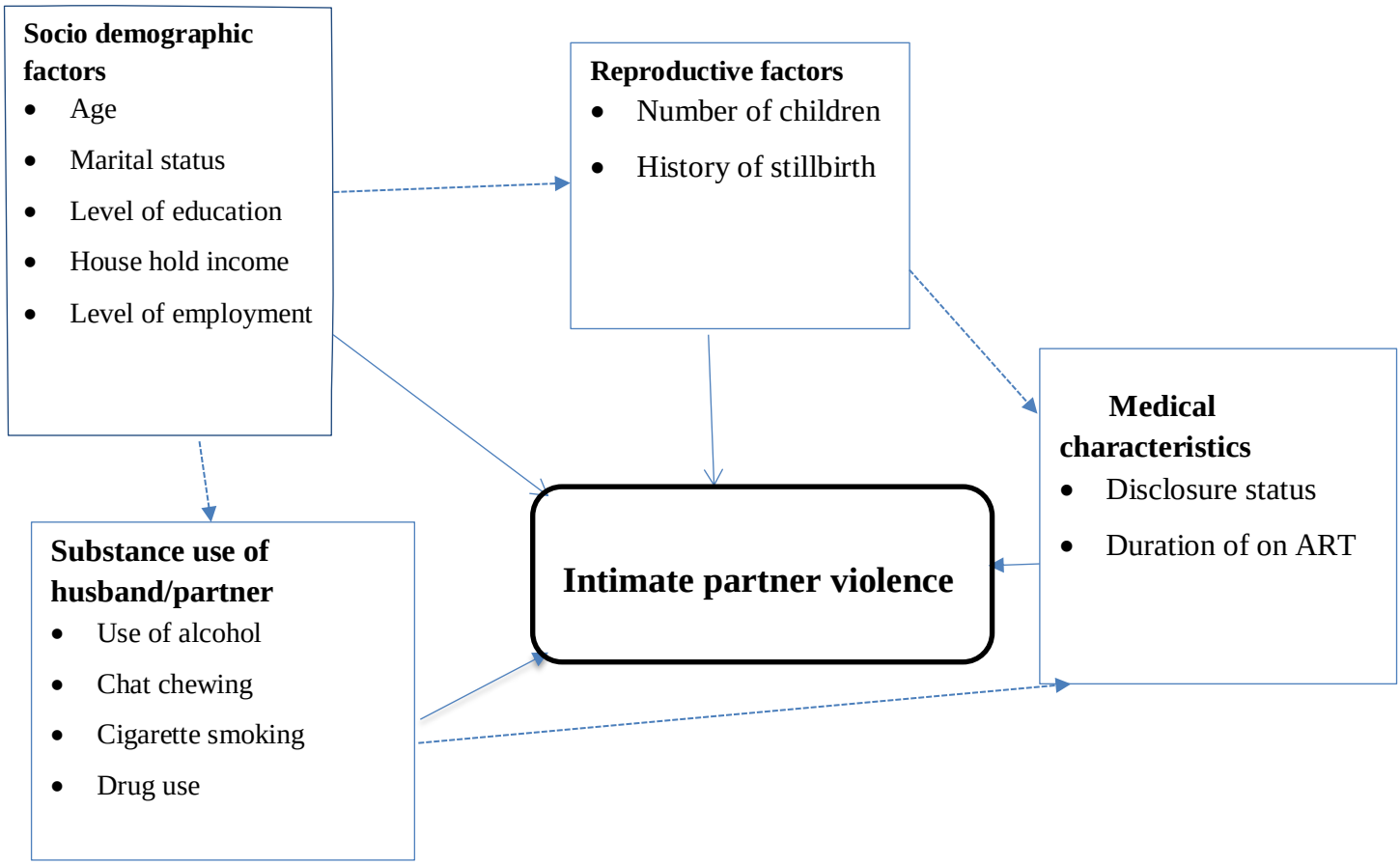

Figure 1.Conceptual framework of intimate partner violence and associated factors of HIV-positive women attending ART clinics in Hawassa public Healthcare facilities.

3. OBJECTIVES

3.1 General Objective

To assess the prevalence and associated factors of intimate partner violence among HIV-positive women in Hawassa City public health facilities, Sidama, Ethiopia, in 2024.

3.2 Specific objectives

To assess the prevalence of intimate partner violence among HIV positive women of Reproductive age group attending ART clinics in Hawassa city, public health facilities, Sidama, Ethiopia 2024

To assess and identify factors of intimate partner violence among HIV positive women of Reproductive age group attending ART clinics in Hawassa city, public health facilities, Sidama, Ethiopia, 2024.

4. METHODS AND MATERIALS

4.1 Study Area

The study was conducted in Hawassa city. Hawassa city is one of capital city of Sidama region it located 273 km far from Addis Ababa the capital city of Ethiopia. The Hawassa city administration is subdivided into 8 sub cities and 32 kebeles. It has one specialized, Two general hospitals, one primary hospital, and ten health centers. It has four government hospitals and 10 health centers. Among them 6 health facilities (the three hospitals and three health centers) deliver ART and PMTCT services. Background data of study facilities, Hawassa University Comprehensive Specialized Hospital Catchment population was more than 5 million population. But, not demark able because of a lot peoples get services at HUCSH from all directions and around four regions (Sidama, Oromia, SNNRP and Somalia). Total numbers of average patient get service in outpatient and impatient 117, 574, 6 visit and 11, 462, 6 get inpatient services and total number of bed in hospital was 516 beds including emergency waiting bed. Total number of ART patients since ART service start was 7967. Number of active patients on ART patients was 2822 (adult 2760 (F=1726 M=1072) Pedi 62 (F=37 M= 25). Currently on ART by pregnancy status (pregnant mother =10 Non-pregnant=1678).

Adare General Hospital catchment population was around 1.3 million populations from Sidama region, Hawassa city administration and Aris zone (oromia region). Total numbers of average patient get service in outpatient and impatient 164,755.3 visit and 5679.3 get inpatient services and total number of bed in hospital was 120 beds including emergency waiting bed. Total number of ART patients since ART service start was 3205. Number of active patients on ART patients was 2507 (adult 2434 (F=1559 M=875) Pedi 73 (F=35 M= 38). Currently on ART by pregnancy status (pregnant mother =10 Non-pregnant=1678).

Millennium Health center catchment population was around 83,215 peoples from two sub-city and five kebeles. Total numbers of average patient get service in outpatient 145308 visit. Total number of ART patients since ART service start was 1221. Number of active patients on ART patients was 622 (600 (F=401 M=200) Pedi 21 (F=11 M= 10).

4.2 Study design and period

Facility based cross-sectional study was conducted from March 30 to April 30, 2024

4.3 Source and study population

4.3.1 Source population

All reproductive age group women (15–49) with known HIV-positive status on ART in health faculties in Hawassa where ART and PMTCT services are available.

4.3.2 Study population

All reproductive age group women's (15–49) living with HIV come on ART for services from selected health facilities in Hawassa during the study period.

4.4. Inclusion and exclusion criteria

4.4.1. Inclusion criteria

All reproductive age group women's, aged 15–49 years, who were living with HIV were using ART (anti-retroviral therapy) services at the time of the study.

4.4.2 Exclusion criteria

Women having any other severe illness, which delayed the interview and women who never had a partner were excluded from the study.

4.5 Sample size determination

The sample size was estimated by using the sample size determination formula for a single population proportion.

Correlated study data in Adama town public health facilities indicates that the prevalence of intimate partner violence is 45.5% (0.45) with a marginal error of 5% (0.05) and a confidence interval of 95% to minimize the error (48).

Calculated by using openEpi.

For the first Dependent variable (IPV)

Sample Size for Frequency in a Population

Population size(for finite population correction factor or fpc)(*N*):	3148
Hypothesized % frequency of outcome factor in the population (*p*):	45.5+/-5
Confidence limits as % of 100(absolute +/- %)(*d*):	5%
Design effect (for cluster surveys-*DEFF*):	1.5

Sample Size(*n*) for Various Confidence Levels

Confidence Level (%)	Sample Size
95%	510

Equation

Sample size $n = [DEFF*Np(1-p)]/ [(d^2/Z^2_{1-\alpha/2}*(N-1)+p*(1-p)]$

Results from OpenEpi, Version 3, open source calculator--SSPropor.

Where

DEF-Design Effect for cluster surveys

n=sample size

d=margin error

p=proportion

Then the calculated sample size=510

10% of 510 were added due to the existence of a non-response rate. Based on this the calculated sample size 10% of non-response rate is **51**.

Table 1 sample size the second objective

Variable	Source	Confidence	Power	% in unexposed	AOR	Sample size with 10% response rate
Husband education (literate, illiterate)	(53)	95	80	39.4	0.5	376
Partner alcohol use (yes/no)	(29)	95	80	49.5	2.36	245
Partner engagement in multi sexual partner	(27)	95	80	24.9	2.21	302

The largest sample size for this study is **561.**

4.6 Sampling techniques

All six health facilities delivering ART services were stratified based on health centers and hospitals. Among the three health centers and three hospitals, two hospitals and one health center was selected randomly by the lottery method and was included in the study. The sample size for each health facility was allocated based on the proportional size of their previous six-month client flow. In order to determine this number, the previous six-month report of the Hawassa town health department was used. The sampling technique for HIV-positive women's was systematic sampling among HIV-positive women. The Kth value calculated for each health facility is calculated by dividing the total numbers of women who have follow up on ART in each facility by the total sample size allocated. The K value in all three facilities is approximately every fifth woman. Samples were selected at 5-value intervals for HIV-positive women on their follow-up day.

4.6.1 Sampling Methods

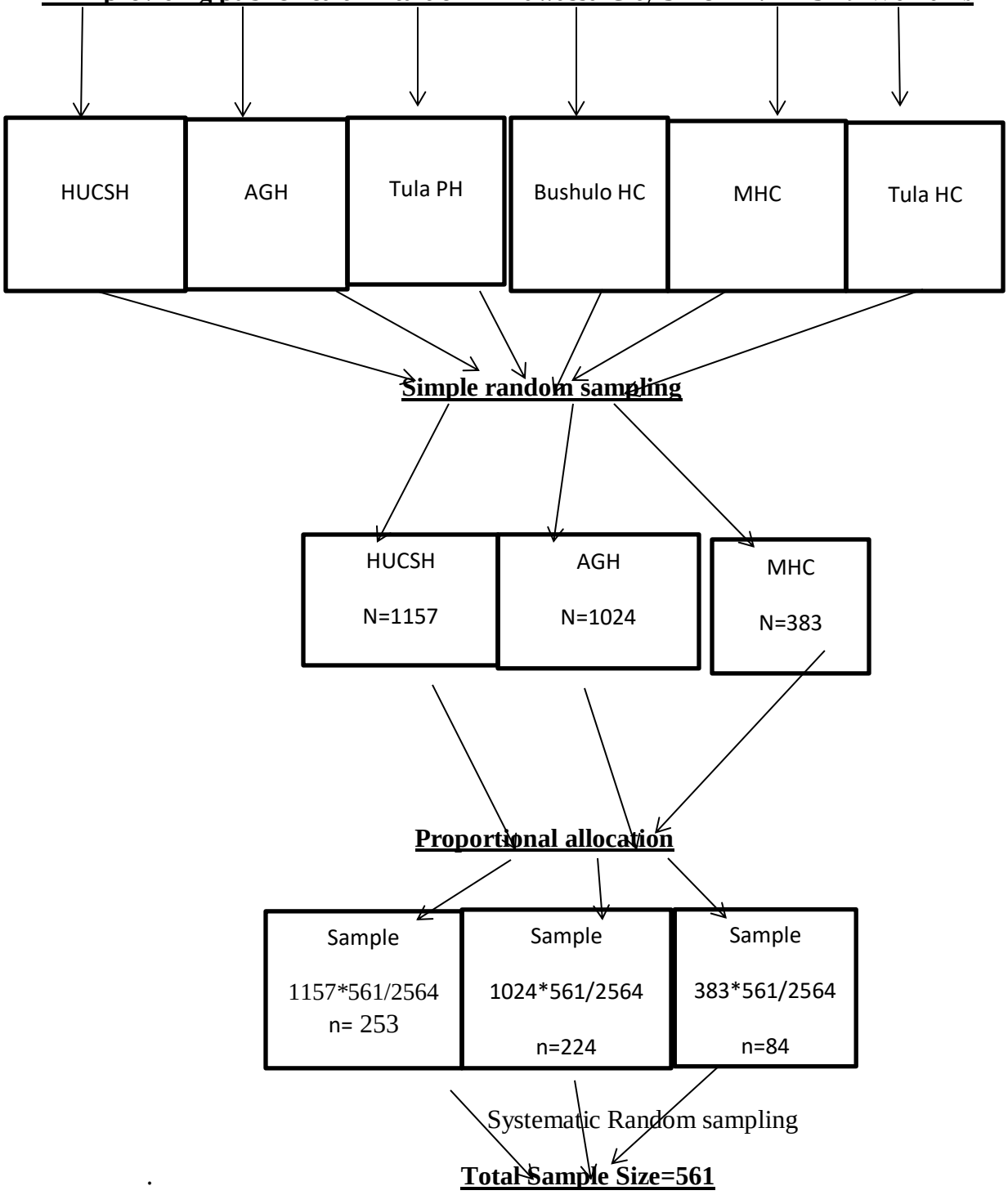

Figure 2.Schematic diagram of sampling method

4.7 Data collection tool and Procedure

Structured interviewer-administered questioners, which are adapted from the WHO violence assessment standards, the data were collected through a face-to-face interview (63). The data collectors, who are ART service providers in each selected health facility, was total fourteen BSC nurses who were ART service providers; all have two or more years' experience in ART. One supervisory nurse was assigned to all selected health facilities. Two days of training was be given to the data collectors and supervisors. Each day, the supervisors was check the entire filled-out questionnaire for completion, clarity, and consistency on a daily basis. Then, the principal investigator was check randomly for completion each day and control the all-over activity.

4.8 Dependent and independent variables

Dependent variable

Intimate partner violence (physical violence, psychological violence and sexual violence)

Independent variables

Socio-demographic factors

Age, marital status, educational status, employment, and family in came.

Reproductive factors

Number of children, History of stillbirth

Medical characteristics

Disclosure status, Duration of on ART

Substance use of husband/partner factors

Alcohol drinking, chat chowing, cigarette smoking, and drug use.

4.9. Operational definition

Intimate partner violence is an outcome variable and is measured when women report one or more acts of physical, sexual, emotional, or psychological violence against their current or former male partner, whether cohabiting or not, since the age of 15 years (29, 35)

Physical violence by an intimate partner was slapped or had something thrown at her that could hurt her, was pushed or shoved, was hit with a fist or something else that could hurt, was kicked, dragged, or beaten up, was choked or bumt on purpose, and the perpetrator threatened to use or actually used a gun, knife, or weapon against him(54, 55). **Severe physical violence** the perpetrator threatened to use or actually used a gun, knife, or weapon against him.

Sexual violence by an intimate partner: was physically forced to have sexual intercourse when she did not want to because she was afraid of what her partner might do and was forced to do something sexual that she found degrading or humiliating(54).

Emotional/psychological violence: This was measured when the women reported at least one emotional violence from the four questions (was insulted or made to feel bad about her, was belittled or humiliated in front of other people, perpetrator had done things to scare or intimidate her on purpose, by the way he looked at her, by yelling or smashing things, perpetrator had threatened to hurt someone she cared about) listed in the WHO multi-country and women violence study questionnaire (55).

Substance use was measured by asking women if their partners had used various substances in the past year. Women who answered yes to using any of the substances and alcohol in the above were classified as having used substances(56).

Past 12-month prevalence of IPV (also referred to as recent or current IPV) is the proportion of ever-married or partnered women who reported that they had been subjected to one or more acts of physical, sexual, or emotional violence by a current or former husband or male intimate partner within the 12 months preceding the survey (48)

4.10. Data Management and Analysis

The data will be checked for completeness and consistency. Then it was collected by the **Kobo toolbox** and exported to SPSS version 26 for analysis. Descriptive statistics (mean, frequencies, tables, and graphs) was used to summarize and describe the data. Bivariate logistic regression analysis done to see the association between each independent variable and the dependent variable. Independent variables with a p-value less than or equal to 0.25 were included in the multivariate logistic regression analysis to control for all the possible confounders. Possible

associations and statistical significance between variables were measured using crude and adjusted odds ratios; those P-values less than 0.05 were considered significant. Variables with a variance inflation factor >10 had dropped from the multi-variable analysis. The fitness of the model was checked by Hosmer Lemeshow's goodness-of-fit test model. Finally, the results was presented in tables and graphs.

4.11 Data quality assurance

The data was collected using a standardized, structured questionnaire adopted from WHO according to the local context and the objective of the study. First, the questionnaire was developed in English, then translated to Amharic, then transited again back to English to check its consistency. Questionnaires include socio-demographic factors, physical violence and sexual violence, emotional violence, history of pregnancy and distance use, and other experiences and behaviors. Prior to the data collection, two days of training was given to the data collectors and supervisors on the content and utilization of the questioner, the objective of the study, and confidentiality. The training was held mainly through discussion. The completeness and consistency of the questionnaire are checked by the data collectors, supervisors, and principal investigator. The principal investigator followed the entire process of data collection. The pretest was done with 5% of the sample size, which was not be included in the study.

4.12 Ethical consideration

Ethical approval and clearance were obtained from the Hawassa University Institutional Review Board (IRB). A permission letter was obtained from the Hawassa city administration health department for the concerned health facilities. All information was explained to study participants that participation is voluntary and confidential, and to ensure confidentiality, code numbers was used instead of names. Purposes, potential risks, and benefits were explained to the participants, and each participant was requested to provide an accurate and honest response. The right of the respondent to withdraw from the interview or not to participate is respected. Informed, voluntary, written, and signed consent was obtained from the participant, who is a woman in the reproductive age group (15–49).

5. Result

5.1 Socio-demographic characteristics of participants

A total of 554 women responded completely, for a response rate of 98.75%. The mean age of the respondent was 36.08 (SD±7.58) years. The respondents (women) were found in the age group 35–39 was 130 (23.5%), followed by the age group 40–44, which was 100 (20.8%). In terms of educational status, primary school was completed by 187 (33.7%), followed by secondary education by 172 (31.0%). Regarding marital status, more than half were currently married, with 320 (57.8%). Concerning the occupational status of women175 (31.6%) of HIV-positive women were housewives, while 152 (27.4%) were merchants or self-employed. (Table 2)

Table 2: Socio-demographic characteristics of HIV Positive women's attending Hawassa city ART clinics, Sidama Ethiopia, 2024 G.C (n=554)

Variable	Frequency	Percent (%)
Age of respondent		
18-24	31	5.6
25-29	80	14.4
30-34	100	18
35-39	130	23.5
40-44	115	20.8
45-49	98	17.7
Mean ±SD	36.08±7.58	
Respondent education		
no formal education	62	11.2
primary education (1-8)	187	33.8
Secondary education (9-12)	172	31.0
Diploma(Level 1-5)	77	13.9
Degree and above	56	10.1
Marital status respondent		
Single	44	7.9
Currently married	320	57.8

Widowed	87	15.7
Divorce	103	18.6
Respondent Occupation		
House wife	175	31.6
Merchant/Self-employ	152	27.4
Student	27	4.9
Government or NGO/private employ	128	23.1
Daily laborer	64	11.6
Others	8	1.4
Family's monthly income		
<2000 BIRR	66	11.9
2000-5000 (middle income)	339	61.2
>5000 (high income)	149	26.9

5.2 Reproductive factors and medical characteristics

Among HIV-positive women attending ART clinics, 289 (52.2%) had one to two children, and 181 (32.7%) had three or more children, 83 (15%) of the participants thought that the HIV caught was because of forced sexual intercourse. Among HIV-positive women attending ART clinics, 145 (26.2%) had one to two times faced stillbirth. Among HIV-positive women attending ART clinics, 444 (80.1%) had disclosed their HIV status to their husband or partner. Among HIV-positive women attending ART clinics, 144 (26.0%) were between 12 and 36 months on ART since they started ART medication. (Table 3)

Table 3 Reproductive Medical characteristics of HIV-positive women attending Hawassa city ART clinics, Sidama Ethiopia.2024 G.C (n=554)

Variable	Frequency	Percent (%)
History of ever pregnancy		
Yes	485	87.5
No	69	12.5
Number of children		
No child	84	15.2
1-2 children	289	52.2
≥3 children	181	32.7
History of stillbirth		
0	377	68.1
≥1	177	31.9
Thought that the HIV caught was b/c of forced sexual intercourse		
Yes	471	85
No	83	15
Disclose HIV-status		
Yes	444	80.1
No	110	19.9
Month on ART		
Less than 12 month	44	7.9
Between 12 to36	144	26.0
Between 37 to 60	77	13.9
Between 61to 120	124	22.4
Between 121 to 180	106	19.1
More than 180 months	59	10.6

5.3 Substance use of husband/partner

Among HIV-positive women's attending ART clinics, 163 (29.4%) of their partners were substance users. One hundred twenty seven (22.9%) of HIV-positive women's partners had drunk alcohol. Ninety-three (16.8%) of HIV-positive women's partners who chew chat. Sixty-five (11.7%) of respondents' partners were smoking cigarettes. Twenty-four (4.3%) and ten (1.8%) HIV-positive women's partners who use drugs and other substances, respectively. 37 (6.7%), 33 (6.0%), 23 (4.2%), and 19 (3.4%) of HIV-positive women's partners had drunk alcohol and chewing chat, chewing chat and cigarette smoking, drunk alcohol and cigarette smoking, and drunk alcohol, cigarette smoking, and chewing chat, respectively.(Figure 3)

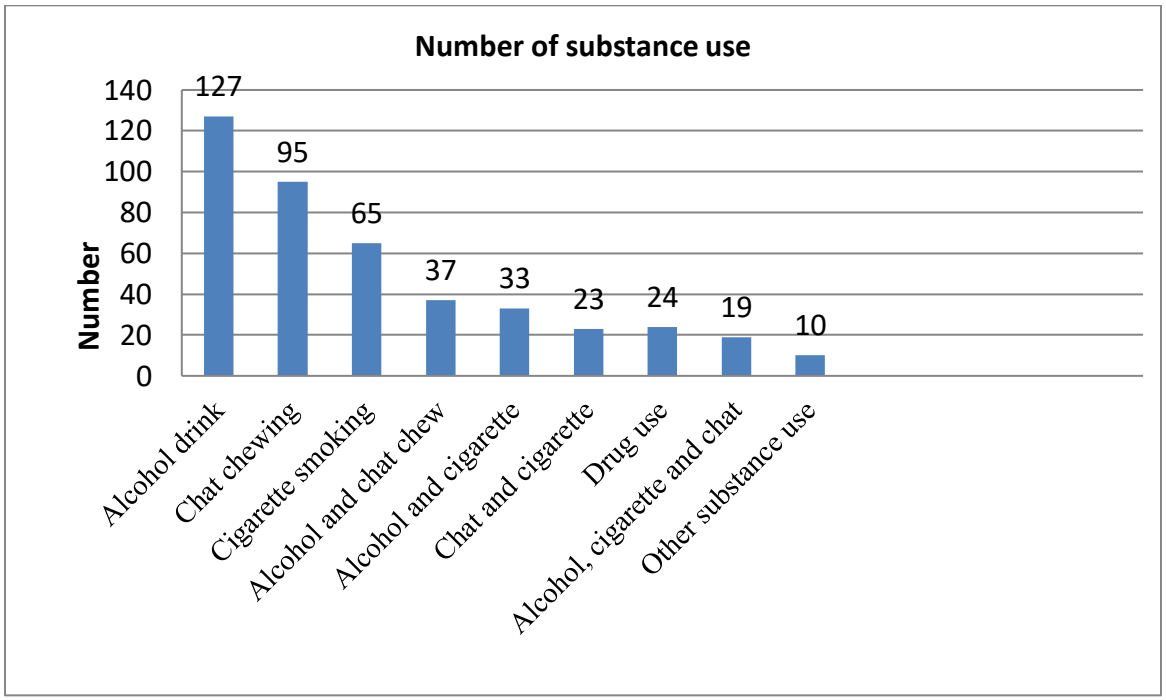

Figure 3 Substance use of husband/partner in Hawassa city, Sidama Ethiopia. 2024 G.C (n=554)

5. 4 Prevalence of IPV among HIV positive women attending Hawassa city public health facilities

In the past 12 months, the prevalence IPV among women who had experienced one of the physical, emotional, or sexual questions among HIV-positive women was 40.3% (95 CI 36.3, 44.6). Psychological/emotional violence was the most common form, with a prevalence of 36% (95% CI 32.9–41.0%), followed by sexual violence (26 %(95% CI 22.9–30.1%) and physical violence (23.8%) (995% CI 20.2-27.4%). The most commonly overlapping occurrence of IPV

was psychological and sexual violence (23.3%), followed by physical and psychological violence (22.9%) and physical and sexual violence (19.7%). The occurrence of all three forms of IPV was 18.8% (Figure 4).

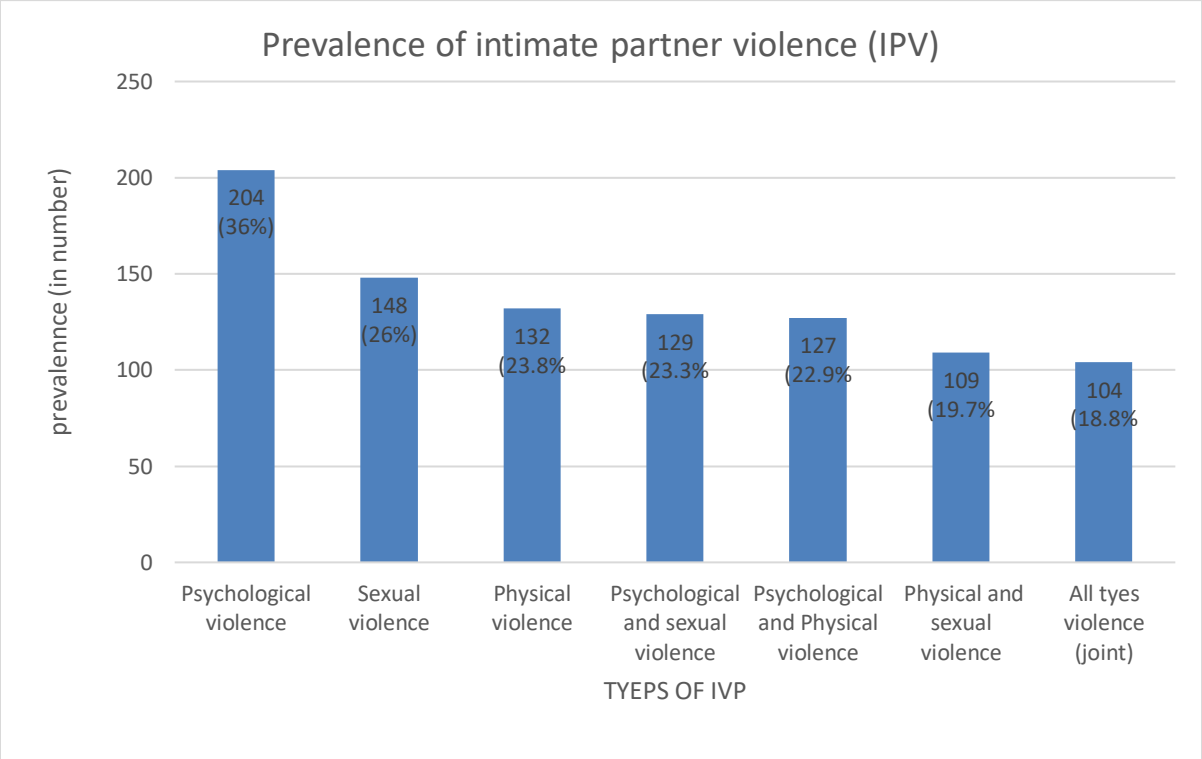

Figure 4 Prevalence of IVP among HIV positive women in Hawassa city, 2024.G.C

Among emotional abuse insulting or making you feel bad about yourself had a prevalence of 139 (35.9%) in HIV-positive women. Among physical violence Slapped or thrown something that could hurt you accompanied 118 (21.3%) of HIV-positive women. Among sexual violence that physically forces you to have sexual intercourse when you do not want to, there was a prevalence of 148 (24.9%) (Table 4).

Table 4 Prevalence of acts of different intimate partner violence among HIV-positive women attending ART clinic Hawassa city, Sidama Ethiopia 2024 G.C (n=554)

Category	Characteristics	Frequency	Percent (%)
Psychological violence	Acts of emotional abuse at least one act	204	36.8
	Insulted you or made you feel bad about yourself.	139	35.9
	Belittled or humiliated you in front of other people.	139	25.1
	Done things to scare or intimidate you on purpose	127	22.9
	Threatened to hurt you or someone you care about	88	15.9
Physical violence	Acts of physical abuse at least one	132	23.8
	Severe physical abuse	63	11.4
	Slapped or thrown something that could hurt you	118	21.3
	Pushed you or shoved you or pulled your hair	108	19.5
	Hit you with his fist or with something else that could hurt you	82	14.8
	Kicked you, dragged you or beat you up	61	11.0
	Choked or burnt you on purpose	54	9.7
	Threatened to use or actually used a gun, knife or other weapon against you	30	5.4
Sexual violence	Sexual abuse at least one act	26	26.7
	physically force you to have sexual intercourse when you did not want to	148	24.9
	have sexual intercourse you did not want to because you were afraid of what your partner or any other partner might do	137	24.7

5.6 Factors associated with IPV among HIV positive women

In bivariate logistic regression, 14 variables were significant with a p-value of <0.25. These variables were further taken into multiple-variable analyses. In multivariable logistic regression, eight factors were significantly associated (p-value <0.05) after adjusting for different variables. Age of respondent, respondent education status, partner/husband education status, marital status of respondent/women, household monthly income**,** Number of children, History of faced stillbirth, Partner alcohol and chat use, Partner alcohol drunk**,** partner chat chew, Disclose the HIV status of the respondent and the month on ART of the respondent.

Associated factors found were that disclosing HIV status for a partner or husband had two times more chances of facing intimate partner violence than not disclosing HIV status for a partner or husband. [AOR= 1.99, 95%CI (1.057, 3.747)], partner alcohol drunk has a 2.40 times higher chance of causing intimate partner violence than the partner who does not drink alcohol. [AOR= 2.755, 95%CI (1.428, 5.313)] The women who have a history of faced stillbirth have a 2.35-times higher chance of IPV than the women who do not have a history of faced stillbirth. [AOR = 2.35, 95% CI (1.432, 3.873)] The women who have three or more children have a 2.71 times higher chance of having a having an IPV than the women who have fewer than three children. [AOR = 2.71, 95% CI (1.129, 6.502)] The respondents who have less than 2000 household monthly income have 2.4 times more chances of facing IPV than those who have more than 2000 household monthly income. [AOR = 2.40, 95% CI (1.27, 4.54)], the women who are currently married have 3.53 times more chances of facing intimate partner violence than the women who are not currently married. [AOR = 2.53, 95% CI (1.128, 11.057)]

Table 5: Bivariable and multivariable logistic regression analyses showing factors associated with intimate partner violence (IPV) among HIV-positive women in Hawassa city, Sidama, Ethiopia, 2024 (n = 554)

Characteristics	IPV		COR (95%CI)	AOR (95%CI)
	YES	NO		
Age respondent				
18-24	11	20	1	1
25-29	37	43	1.6(0.664,3.68)	0.721 (0.214, 2.424)
30-34	54	46	2.1(0.93,4.91)	1.268 (0.399, 4.028)
35-39	50	80	1.13(0.50,2.57)	0.880 (0.266, 2.915)
40-44	42	73	1.04(0.46,2.39)	0.668 (0.197, 2.271)
45-49	29	69	0.54(0.32,1.79)	0.490 (0.135, 1.777)
Respondent education				
No formal education	31	31	1	1
primary education (1-8)	79	108	1.947(0.92,4.09)	0.721 (0.214, 2.424)
Secondary education (9-12)	65	107	1.424(0.76,2.66	1.268 (0.399, 4.028)
Diploma(Level 1-5)	29	48	1.18(0.63,2.23)	0.880 (0.266, 2.915)
Degree and above	19	37	1.18(0.57,2.42)	0.668 (0.197, 2.271)
Partner/husband education				
No formal education	15	18	1.45(0.67,3.13)	0.286 (0.096 , 0.849)
primary education (1-8)	46	71	1.13(0.68,1.87)	0.199 (0.067, 0.593)
Secondary education (9-12)	73	102	1.24(0.78,1.97)	0.232 (0.073, 0.738)
Diploma(Level 1-5)	39	53	1.28(0.74-2.2)	0.172 (0.055,0.539)
Degree and above	50	87	1	1
Marital status of respondent				
Single	9	35	1	1
Currently married	167	153	4.245(1.97,9.11)	3.532 (1.128, 11.057)**
widowed	18	69	1.014(0.413,2.49)	0.715 (0.194, 2.627)
Divorced	29	74	1.524(0.652,3.562)	0.836 (0.239, 2.926)

Monthly income				
<2000 birr	118	96	2.11(1.31,3.405)	2.40 (1.27,4.54)**
2000-5000	66	168	0.675 (0.415,1.098)	0.98 (0.53,1.823)
>5000	39	67	1	1
Number of children				
0	24	60	1	1
1-2	124	165	1.88(1.11,3.18)	2.217 (0.957, 5.132)
≥3	75	106	1.77(1.01,3.09)	2.709 (1.129, 6.502)**
History of faced stillbirth				
0	126	251	1	1
≥1	97	80	2.41(1.67,3.48)	2.355 (1.432, 3.873)**
Partner alcohol and chat use				
Yes	28	9	5.14(2.37,11.11)	1.287 (0.322, 5.147)
No	195	322	1	1
Partner alcohol drunk				
Yes	78	36	4.41(3.49,10.26)	2.755 (1.428, 5.313)**
No	145	295	1	1
Partner chat chew				
Yes	59	22	4.20(2.53, 6.97)	1.861 (0.825, 4.196)
No	164	309	1	1
Partner Cigarette smoking				
Yes	39	22	2.98(1.71,5.18)	1.462 (0.679, 3.150)
No	184	309	1	1
Disclosed your HIV status				
Yes	191	253	1.84 (1.17,2.89)	1.990(1.057,3.747)*
No	32	78	1	1
Month on ART of respondent				
Less than 12 month	20	24	1	1
Between 12 to36	81	63	4.08(1.65,10.06)	1.712 (0.652, 4.498)
Between 37 to 60	38	39	6.3(2.96,13.41)	1.070 (0.378, 3.026)
Between 61to 120	42	82	4.77(2.11, 10.77)	0.711 (0.257, 1.966)
Between 121 to 180	32	74	2.51(1.56, 5.45)	0.599 (0.209, 1.715)
More than 180 months	10	49	2.13(0.955, 4.70)	0.332 (0.092, 1.196)

*=p-value< 0.05 and **=p-value <0.01

6. Discussion

In this study, the overall magnitude of intimate partner violence among HIV-positive women in the last 12 months was 40.3% (95 CI 36.3, 44.6). The prevalence of intimate partner violence in this study was lower than the study conducted in Gondar city (64.2%), central Ethiopia, Woliata Sodo, Ruanda, Tanzania (33, 57-60). The possible reason for this discrepancy might be that the study included both rural and urban residences, and sociocultural differences can also be mentioned. The magnitude of IPV in this study was estimated with a study done based on EDHS data, urban SSA, and pooled prevalence of IPV in SSA (9, 61). In contrast to the above finding, this study's occurrence was higher than that of a study conducted in the south wollo zone, Aksum town (25).

This finding was to some extent higher than in previous studies conducted in Adama town(32.3%), Baltimore, America, Nairobi and Mombasa, Kenya, and India (20, 34, 48, 56, 62). This finding is lower than studies done in different parts of the Awi zone, Ethiopia, Nekemet, Ethiopia, the WHO multi-country study (15, 16, 63) and the study done in Kenya (64). Variations in socioeconomic position, the availability of reproductive health treatments, and other gender-related health services could be the cause of this difference. An additional discrepancy may result from the assessment instrument used in the American study's traumatic life events questionnaire.

The prevalence of psychological and emotional violence (36% reported in this study is significantly lower than in the studies done in Gondar town (48.9%), and South Africa (55.1%), significantly low(17, 58) In addition, the prevalence of sexual violence (26%) and physical violence (23.8%) reported in this study was found to be lower than the finding in Gondar, Ethiopia (54.8%), 51.1% (physical and sexual, respectively), and the reported sexual violence was lower than the study done in Togo (69.7%) (51, 58). Their different cultural backgrounds may account for the difference, and the likely reason for the gap could be due to the small sample size in Togo and the use of a different measurement instrument (an audio computer-assisted self-interview) in South Africa.

In the current study, factors associated with IPV among HIV-positive women were identified. In this study, the respondent who has less than 2000 household monthly income has 2.4 times more chances of facing IPV than those who have more than 2000 household monthly income. [AOR = 2.40, 95% CI (1.27, 4.54)] This is due to the fact that the fact that having a low income may cause disagreement between partners and lead to quarrels. This finding is supported by a study in Gondar, Ethiopia, and Bangladesh, where having a middle income reduced IPV by 53% (60, 65). EDHS analysis showed that those women with poor wealth status had 1.21 times higher odds of IPV than those with rich wealth status (66).

In this study, a partner who drinks alcohol has a 2.75 times higher chance of committing violence than a partner who does not drink alcohol. This can be due to a loss of control over his feelings and committing violence against their partner or housewife. This finding is supported by a study in Woliata, Gondar, Ethiopia(33, 58). A multi-country study conducted by the World Health Organization revealed that partner alcohol use increases IPV by 1.8 times. But in our study, it is higher. Studies in central Ethiopia found that Ruanda also had a positive association between partner alcohol consumption and IPV (5, 57, 67).

In this study, the women who are currently married had 3.53 times more chances of facing intimate partner violence than the women who are not currently married. [AOR= 3.53, 95%CI (1.128, 11.057)], because married women are more susceptible to any type of violence from their partner than other women (single, widowed, and divorced), social, economic, and cultural factors influence their agreement with each other, this finding is support the study done wolaita Ethiopia, Uganda(68, 69).

In this study, women with three or more children had a 2.71 times higher risk of IPV than women with fewer than three children. [AOR = 2.71, 95% CI (1.129, 6.502)] Because of the number of children in the family, the demand for the economy increases. At that time, disagreements may arise. The study found support for the study done in Uganda (68).

In this study, the women who have a history of faced stillbirth have a 2.35-times higher chance of experiencing IPV than the women who do not have a history of faced stillbirth. [AOR = 2.35, 95% CI (1.432, 3.873)] This variable has a significant association with both outcome variables. Due to cultural factors, this means they believe that if women face stillbirth one time, she will face the next. This belief is common in Ethiopia, especially in the study area, so violence may happen, especially psychological violence. This study finds support for the study done in Debre Behan (70).

The women who disclosed their HIV status to their partner or husband had two times more chances of facing intimate partner violence than those who did not disclose their HIV status to their partner or husband. This may be due to recent knowledge of the HIV status of women, which has led to violence. This finding is supported by the study done in Wolaita, Ethiopia (33).

7. Strength and limitation of the study

Data used in this study was primary and accurate and generated updated information and data was collected by well experienced and trained ART providers in each selected facilities. It recognized different factors associated to intimate partner violence in HIV positive women's. Possible limitations were social desirability bias might be introduced due to answers were self-answered. Recall bias was possible during data collection period and it could be overcomed by careful designing of the questionnaires. Time-based relationship between variables cannot be established due to study design nature. The women were asked questions about their husbands or partners; however, this may not have been an ideal method to obtain the precise response.

8. Conclusion and Recommendation

8.1 Conclusion

Intimate partner violence among HIV positive attending ART clinics in study areas were considered to be high and identified as a public health issue. The important factors identified as significantly associated to the IPV among HIV positive women who attending ART clinics were disclose HIV status for partner or husband, Partner who drinks alcohol, women with three or more children, family monthly income less than 2000, history of faced stillbirth and being currently married women were significantly associated.

8.2 Recommendation

Policy makers and concerned stake holders need to design screening tool to identify IPV in the health facilities, and intervention program implementation should be amended at the grass root level of the community accordingly. Ministry of education should be given education about all types' intimate partner violence and against gender based violence in all level. Woman and children affairs should be focused on area that needs to be improved is empowering and capacitating women by education and economy. Health professionals should focus on awareness creation on violence and along with other health services. For researchers, it is needed other studies with a better design like prospective cohort and case control studies in order to know cause and effect relationship of HIV and IPV.

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Annexes

Annex I: Information sheet and consent form

Voluntary Consent Form of Participant woman whose Age between 18 -49 Years

My name is _____I am working as data collector for the study being conducted in this health facility by Endriyas Samato, who is studying for her master's degree at Hawassa University college of Medicine and Health science. You are being selected as the study participant.

Purpose/aim of the study:

The findings of this study can be of a paramount importance for health system, and for different concerned bodies to plan intervention programs for intimate partner violence to HIV positive women and pregnancy adverse outcomes. Moreover, the aim of this study is to write a thesis as a partial requirement for the fulfillment of a master's program in Reproductive health for the principal investigator.

Procedure and duration:

I will be interviewing you using a questionnaire to provide me with a pertinent data that is helpful for this study. There are 34 questions to be answered and it will take 30 to 35minutes, so I kindly request you to spend time with me for the interview.

Risks and benefits:

The risk of being participating in this study is you may have minimum discomfort to disclose your painful experience. There is no any direct payment for participating in this study. But the findings from this study may an important input for the local health planners to address this issue accordingly.

Confidentiality: The information collected you provide us will be kept confidential and stored in file. There is no information that identifies the participant in particular. The finding of this study is general for the study community and will not reflect anything in particular of individual of persons or health facility. The question is coded to exclude showing names. No reference will be made in oral or written reports that could link participants to the research.

Rights: Participation for this study is fully voluntary. You have the right to declare to participate or not in this study. If you decide to participate, you have the right to withdraw from the study at

any time and this will not label you for any loss of benefits, which they otherwise are entitled. You do not have to answer any question that you do not want to answer.

Contact address:

If there, are any questions or enquires any time about the study or the procedures, please contact: **Endriyas Samato**, mobile +251-941043993, Email sarmisosamato@gmial.com.

CONSENT

I ---------- have been informed about the study entitled (Intimate Partner Violence against Women living with HIV and associated factor in Hawassa city public health facilities, Ethiopia) by Endriyas samato). I understand the purpose and procedures of the study. I have been given a chance to answer questions about the study and have had answer. I declare that my participation in this study is entirely voluntary and I may withdraw at any time. If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher by mobile +251- 941043993 or E-mail address: sarmisosamato@gmail.com)

Signature of Participant Date

_____ _____

Witness name

1. ---------- ----------

2. ---------- ----------

3. Interviewer name ---------- ----------

Annex II

2: English Version of Questionnaire

Code No: _____

Part I: Socio-demographic characteristics			
No_	Question	Coding category	skip
Q101	Patient MRN with year	---------	
Q102	Age (current) of the patient	-------years	
Q103	Sex of the patient	1. Female 2. Male	
Q104	What is your religion	1. Orthodox 2. Muslim 3. Catholics 4. Protestant 5. Other (specify)---------	
Q105	Where is residence?	1. Urban 2. Rural	
Q106	What is your level of education?	1. No formal education 2. Primary education (Grade1_8) 3. Secondary education(9-12) 4. Higher (above grade 12	
Q107	What is your occupation?	1. Housewife 2. Merchant 3. Student 4. Government employee 5. Daily laborer 6. Others (specify)----------	
Q108	What is your current marital status?	1. Single 2.maried 3. Divorced 4. Widowed	
Q109	What is your husband's level of education?	1 No formal education 2 Primary education (Grade1-8) 3 Secondary education(9-12) 4 Higher (above grade 12)	
Q110	What is your husband's occupation?	1. Farmer 2. Government employee 3. Merchant 4. Daily laborer 5. Others specify----------	
Q111	What is your monthly income?	Ethiopian birr----------	
ART medication related items			
	Item	Response	
Q112	Months on ART since patient started ART medication	……months	
Q113	Date ART started	Date/month/year	
Reproductive health-related characteristics			

Q113	How many children do you have?	……number	
Q114	How many times you have been pregnant?	……number	
Q115	How many times you have faced stillbirth or IUFD?	……number	

Part two violence related items-psychological violence			
Q220	Have you insulted or made you feel bad about yourself by yourhusband/partner/boyfriend in the past 12 months?	1 yes 2 no	
Q221	Have you belittled or humiliated in in front of other people by your husband/partner/boyfriend in the past 12 months?	1 yes 2 no	
Q222	Have you intimidated or scared you on by purpose by your husband/partner/boyfriend in the past 12 months?	1 yes 2 no	
Q223	Have y threatened to hurt you or someone you care about by your husband/partner/boyfriend in the past 12 months?	1 yes 2 no	
Q224	Is your husband/partner/boyfriend taking any substance before committing the above Physical abuses in the past 12 months?	1 yes 2 no	If no skip Q118
Q225	What types of substance did he take?	1 Chat 2 Cigarette/smoking 3 Drugs 4 Alcohol 6 others specified	
Part three Physical violence			
	During the past 12 months , has your husband		
Q326	Have you slapped or thrown something at you that could hurt you by your husband/partner/boyfriend in the past 12 months?	1 yes 2 no	
Q327	Have you pushed or shoved or pulled your hair by your husband/partner/boyfriend in the past 12	1 yes 2 no	

	months?		
Q 328	Have you hit by fist or with something else that could hurt you by your husband/partner/boyfriend in the past 12 months?	1 yes 2 no	
Q3 329	Have you Kicked you, dragged you or beaten you up by your husband/partner/boyfriend in the past 12 months?	1 yes 2 no	
Q330	Have you Choked or burnt you on purpose by your husband/partner/boyfriend in the past 12 months?	1 yes 2 no	
Q331	Have you threatened to use or actually used a gun, knife or other weapon against you by your husband/partner/boyfriend in the past 12 months?	1 yes 2 no	
Q332	Is your husband/partner/boyfriend taking any substance before committing the above Physical abuses in the past 12 months?	1 yes 2 no	If no skip Q126
Q333	What types of substance did he take?	1 Chat 2 Cigarette/smoking 3 Drugs 4 Alcohol 6 others specified	
Part four Sexual violence			
During the past 12 months , has your husband			
Q434	Have you physically forced to have sexual intercourse when you did not want to by your husband/partner/boyfriend in the past 12 months?	1 yes 2 no	
Q435	Did you ever have sexual intercourse when you did not want to because you were afraid of what he might do by your husband/partner/boyfriend?	1 yes 2 no	
Q436	Is your husband/partner/boyfriend taking any substance before committing the above Physical abuses in the past 12 months?	1 yes 2 no	If no skip Q132
Q437	What types of substance did he take?	1 Chat 2 Cigarette/smoking 3 Drugs 4 Alcohol 6 others specified	
Q438	Do you think that the HIV you caught is because of forced sexual intercourse/rape?	1 yes 2 no	

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እኔ ---------- (በሚኖሩ ሴቶች ላይ የሚፈጸም የቅርብ አጋር ጥቃት) በሚል ርዕስ ስለተደረገው ጥናት ተነግሮኛል። ከኤችአይቪ እና ተያያዥ ምክንያቶች በሀዋሳ ከተማ የህዝብ ጤና ተቋማት, ኢትዮጵያ) በእንድርያስ ሳማቶ). የጥናቱ ዓላማ እና ሂደት ተረድቻለሁ። ስለ ጥናቱ ጥያቄዎች መልስ እንድሰጥ እድል ተሰጥቶኝ መልስ አግኝቻለሁ። በዚህ ጥናት ውስጥ ያለኝ ተሳትፎ ሙሉ በሙሉ በፈቃደኝነት እንደሆነ እና በማንኛውም ጊዜ ማቋረጥ እንደምችል አውጃለሁ። ከጥናቱ ጋር የተያያዙ ተጨማሪ ጥያቄዎች/ስጋቶች ወይም ጥያቄዎች ካሉኝ ተመራማሪውን በሞባይል +251- 941043993 ወይም በኢሜል አድራሻ፡ sarmisosamato@gmail.com ማግኘት እንደምችል ተረድቻለሁ።

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3. የጠያቂው ስም ---------- ----------

Annex 3

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THANK YOU!!