SEXUAL BEHAVIOR AND DETERMINANTS OF CONDOM USE AMONG HIV/AIDS PATIENTS WHO ARE ON ART IN NORTH SHEWA HEALTH FACILITY, 2010/2011

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ACRONYMS

AA	Addis Ababa
AAU	Addis Ababa University
AIDS	Acquired Immune Deficiency Syndrome
HAART	Highly active antiretroviral therapy
HIV	Human Immune Virus
PIHCT	Provider Initiative HIV counseling and testing
SPSS	Statistical Package for Social Sciences
SSA	Sub-Saharan Africa
STD	Sexually Transmitted Diseases
STI	Sexually transmitted infections
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
VCT	Voluntary counseling and test

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ABSTRACT

Background: The burden of HIV/AIDS is high in Sub-Saharan countries which constitutes two third of the globe and is worst in Ethiopia. As a strategy for prevention, condom use practice among others remains the most effective method against HIV infection. Therefore identifying determinants of consistent condom use in HIV patients who were on ART had paramount importance in the prevention and control of the disease.

Objective: To assess the sexual behavior and determinants of condom use in HIV/AIDS patients who are on ART based on theory of planned behavior constructs.

Methods: a cross sectional study design was conducted in North Showa Health facilities from March to April 2011. Structured questionnaire was prepared and also adopted from the theory of planned behavior and the data was collected from 337 randomly selected study participants in North Showa ART rendering health facilities. Analysis was done using Cronbach's alpha reliability test, binary logistic regression, Partial correlation, and linear regressions in order to know the predictors of consistent condom use and or intention to consistent condom use.

Results: All the respondents filled the Questionnaires and 56% of the respondents were females with the median age of 32.00$\pm$9.66 years. Among the respondents 144(42.70%) of them had multiple partners and 209(62.00%) used condom consistently and casual types of partner for those who had multiple sexual partner was the largest proportion (47.70%). Over half of the respondents (52.30%) had had sex without condom use with partner of Unknown HIV sero-status. All components of the theory, attitude (r=0.31: p$\leq$0.001), subjective norm (r=0.39: P$\leq$0.001), perceived behavioral control(r= 0.36: P$\leq$ 0.001) were correlated significantly and positively with intention to consistent condom use. All components were significant predictors of behavioral intentions. Based on multiple linear regression, the standardized regression coefficient was ($ß_{attitude}$=0.21: P$\leq$0.005), ($ß_{subjective\ norm}$= 0.26: P$\leq$0.001) and ($ß_{perceived\ behavioral\ control}$ =0.28: P$\leq$ 0.001). In general the theory explained 29.1% of variation of intention to use condom consistently.

Conclusion: Significant proportion of risky sexual behaviors observed in HIV patients who are on ART and the theory of planned behavior was applicable in explaining the behavioral intentions of consistent condom use.

1. INTRODUCTION

1.1. Background

The burden of HIV/AIDS epidemics is still a global problem. About thirty three million of Peoples were living with HIV virus in 2008 with adult composition of 31.3 million numbers and 2.7 million new infections and costs 2 million peoples' lives which 1.7 million were adults (1). Above all, HIV/AIDS is one of the greatest public health problems of sub-Saharan Africa countries which affecting 22.4 million to 28 million peoples and deaths of 1.4 million (1, 2).

HIV was first notified in Ethiopia in 1986 in a hospital setup following detailed diagnostic procedures in which the serum of the patient was taken in 1984(3). Since then, the problem widespread in the country and put the country as among largely affected sub-Saharan African countries. The total numbers of peoples living with HIV in Ethiopia were 1,345,970(4) with single point estimate of HIV prevalence of 7.7% in urban and 0.9% in rural for year 2009(5)

The number of peoples living with HIV are increasing more (6, 7) along with the improvement of the medical HIV care and others(8) despite a lot of interventions are provided to avert the progression and spread of the disease(5). Many factors could be mentioned for the alarming and hard hit of the disease in Ethiopia(3) and other sub-Saharan countries(1). The most common route of transmission is heterosexual mode in adults. However the intervention given was not linked in behavioral changes which is the root of prevention and control of the disease (9).

In Ethiopia, according to the 2007 single point estimate, 336,160 people living with HIV were in need of ART in 2009 and the number of AIDS cases ever started ART has grown to 241,759 as of December 2009 among which 176,632 were currently on ART(5)

Globally, the commonest mode of transmission of HIV/AIDS in adults is sexual contact. Since the introduction of potent antiretroviral therapy in 1995–1996, both morbidity and mortality in HIV-infected individuals with access to therapy have substantially decreased(10). Lack of knowledge of partner's sero-status and low levels of disclosure of one's own HIV status, coupled with inconsistent condom use, sets the stage for HIV

transmission to sero-discordant partners, especially within regular partner relationships (11).

HIV patients who are on HAART had high exposure of counseling than in the other phases of HIV patients but the counseling could not usually touch about the sexual behavior of them with much focus in every contact(11). Moreover, there are no adequate studies showing the sexual behavior of HIV patients who are on ART and with heterosexual mode of transmission for effective prevention strategies because behavior is the center of the target to achieve the desire output in HIV tasks.

The current study will try to assess sexual behavior of HIV patients receiving ART and their intention to use condom based on theory of planned behavior which could further contribute to promotional use of condom as preventive measures in Ethiopia.

1.2. Rational of the study

Understanding the sexual behavior of HIV patients who are on ART is critical in the transmission of the disease. Because the longer the patient on treatment, the more likely to practice risky sexual practices.

There are limited studies with regard to high risk sexual behavior of ART patients in Sub-Saharan African countries (SSA) as well in our countries. From a study done in AA public hospitals on high risk sexual behaviors of HIV patients who are on ART shows that significant number of HIV patients who are taking ART practiced either inconsistent condom use or not used at all(12). Therefore, it is necessary to study consistent condom use and the intention of consistent condom use among ART patients in construct with the behavioral change models by theory of planned behavior.

Worthwhile for appropriate and possible provision of special education, counseling and support on risk reduction methods of ART patients, we need to know the magnitude of the problem and the benefit the patient gains.

Understanding sexual behavior of groups at risk of transmitting the disease is thus a critical task in the prevention efforts of the disease. Therefore, this study would help to identify factors responsible for performing risky sexual behavior for future improvement in the program of HIV/AIDS control and prevention.

2. LITERATURE REVIEW

2.1. Sexual behavior of HIV patients

HIV infected peoples are prone to stigmatization and exclusion which let the others not to take the advantage of voluntary counseling and testing (VCT) as a result of this, people simply engage in unsafe sex(13).

A research done in a Cambodian hospital, Phnom Penh shows that most (61%) of HIV-infected male patients were unaware of their risk for HIV infection through their sexual behaviors and these of HIV patients had high risk of sexual behaviors with sex workers, and a low prevalence of condom use(14). In support of this a study done in South Africa displays that 54.4% of those sexually active in the 6 months preceding the study, had not used a condom during the most recent intercourse (15). Additionally a study done in Wales also shows from 76% of the study participants who were sexually active, 42% of them had causal partner and 16.5% of the sexually active HIV patients reported unprotected high risk sex with HIV negative or unknown status partners(16).

A study done in KwaZulu-natal, South Africa state shows that 30% of those sexually active HIV patients were practicing unprotected sex and 39.2% of unprotected sex events were with partners perceived to be HIV negative or HIV status unknown. The commonest predicted factors for unprotected sex were alcohol, forced sex, perception of HIV, HIV status disclosure and causal partner (17).

2.2. Sexual behavior of HIV patients who are on ART

The percentage of deaths in sub-Saharan Africa due to AIDS is high and it had been reduced because of ART. However new infection increases in line with inappropriate usage of ART and lack of behavioral interventions. A study from South Africa shows that 49% of the participants believed ART can cure the disease (18).

Sexual practice including sexual act and number of sexual partner decline after HIV test (9, 19) and 70% of risky sexual behavior reduced in HIV patients after 6 months of ART initiation from a study done in rural Uganda (20). A study done in Masaka of Uganda shows that unsafe sexual intercourse and risky sexual behavior was high after ART initiation(21) because of the male partner dislike condom use during intercourse (9) and another studies also depicts a 23% of unprotected sex among HIV patients after receiving 3

month of ART(22). This results HIV re-infection and creation of drug resistance and is a concern about the future treatment of HIV/AIDS and its fate of prevention (9, 20, 22).

A study done in Mombasa shows that no evidence of increased sexual risk behavior among persons receiving ART. However, the probability of risk of HIV transmission remains there because of 28% of unsafe sex and 33% of sex without aware of partners HIV status had had in sexually active participants. Condom use in the last sex exposure was 44%. Therefore, safe sex counseling needs special emphasis in ART programs(23). A systematic review done in developing countries shows 82.2% of consistent condom use in the respondent's last sex(24). Partner's sero-status who had sex without using condom was assessed in Cote d'Ivoire and shows 32.8% of them was with Unknown HIV status, 22.6% was with negative status and 44.6% was with positive HIV status(25).

As of the Ethiopian Ministry of Health ART rollout plan, the number of AIDS deaths declined from 2005 onwards. By the year 2010, there will be 41% fewer AIDS deaths compared to a projection without an ART program. The urban epidemic is at unacceptably high prevalence level of 10.5%; prevalence of behavioral indicators such as condom use are not at optimal levels; counseling and testing coverage is still low with only 5% of the general population (15-49) years of age being ever tested; ART has been accessed by only 13% of those who need ART in Ethiopia(3).

ART is taken as an important tool for HIV transmission by suppressing plasma viral load to undetectable levels, but it does not mean that transmission risks within individual couples are eliminated. Sexual transmission of HIV from an infected partner who was on ART with a repeatedly undetectable plasma viral load has been documented (26).

However, people's belief about HAART and viral load may promote unprotected sex (19) as well as patients genital fluid viral load may play a greater role than plasma viral load in the risk of sexual transmission of HIV. The likelihood of HIV transmission in the setting of ART is influenced by a number of factors.

HAART increases the life expectancy and improves the quality of life of persons with advanced HIV infection (10). However, the success of antiretroviral therapy brought a decrease in the perceived severity of HIV disease and thereby an increase in transmission risk behavior among HIV-infected and -uninfected individuals (27). Although ART

improves life if properly taken, there are also people do not adhere to it and getting complications. A study done in Bulongwa, Tanzania, there were 24% of ART patients who missed their tablet of ART(28).

A study done in Addis Ababa public hospitals, the percentage of consistence condom use of HIV patients receiving ART were 63.1 with 10% of multiple sexual partner's history and with several personal and social reasons for not using condoms(12). A study done in rural Uganda shows that 82% of condom use was observed and also study at Aliwal North Hospital shows that there was 70% of consistent condom use among the patients(29).

In order to reverse the global HIV epidemics, maintaining behavioral change would be the foremost tool in HIV patients in general and who are in ART particularly. Clear understanding is urgently required regarding the optimal means of producing needed behavioral change. ART is a lifelong treatment of HIV/AIDS like that HIV/AIDS prevention is also not a one shot task rather a continuous behavioral change implementation and monitoring is needed(30) which can target individuals, families, communities, entire societies, or a combination of all these. Effective HIV prevention addresses the social dynamics or the social norm change that influence individual behavior(31).

Considering the above scenario, understanding human behavior is prerequisite to change behavior and improve health practices. Experts in health interventions and health policy became increasingly aware of human behavioral factors in quality health care provision among which one is HIV/AIDS treatment, prevention and further investigation taking into account the findings from behavioral studies.

2.3. Theory of planned behavior

The most commonly used conceptual framework for studying the determinants of a particular behavior(32) such as exercising, donating blood, adhering to a low-fat diet, using condoms for AIDS prevention, using illegal drugs, and wearing a safety helmet and others are better described by theory of planned behavior(33). Nowadays, many of sexual behavior literature are based on Ajzen's Theory of Planned Behavior (TPB), which suggests that behavior is planned, rational and intentional.

The Theory of planned behavior is the extension of Theory of Reasoned Action (32) which includes behaviors that are not entirely under volitional control. In order to include this, perceived behavioral control to the TRA is added which shows behavior not to be hundred percent voluntary and under control. The Theory of Planned Behavior adds the concept of perceived behavioral control, which originates from self efficacy theory proposed by Bandura in 1977.

According to TPB, human behavior is guided by three kinds of considerations:

- Beliefs about the likely outcomes of the behavior and the evaluations of these outcomes (behavioral beliefs),
- Beliefs about the normative expectations of others and motivation to comply with these expectations (normative beliefs) and
- Beliefs about the presence of factors that may facilitate or impede performance of the behavior and the perceived power of these factors (control beliefs).

In their respective aggregates, behavioral beliefs produce a favorable or unfavorable attitude toward the behavior; normative beliefs result in perceived social pressure or subjective norm; and control beliefs give rise to perceived behavioral control. In combination, attitude toward the behavior, subjective norm, and perception of behavioral control lead to the formation of a behavioral intention(34).

Behavioral intention is an indication of an individual's readiness to perform a given behavior. It is assumed to be immediate antecedent of behavior(35). It is based on attitude toward the behavior, subjective norm, and perceived behavioral control, with each predictor weighted for its importance in relation to the behavior and population of interest.

A study done in rural Ethiopian population shows that, the theory of planned behavior explains 36% of the variance of intention to condom use(36). The UK Meta analytic study shows a little higher (39%) intention variance(37). Another study done in Ethiopian female adolescents on contraceptive use shows, 29% of the variance in intention to use contraceptives(38). Attitude and subjective norm explained 46.1% of the intention in a study done on documentation behavior of nurse’s(39).

A research done on homosexually active men using TRA shows that the subjective norm was better predictor of intention to use condom than attitude(40) but studies done in South

Africa on TRA/TPB in a work place HIV/AIDS health promotion program, attitude was the most significant predictors followed by perceived behavioral control(41).

Evaluation of theory

Strength

At first, theory of planned behavior can cover people's volitional behavior which cannot be explained by Theory of Reasoned Action. An individual's behavioral intention cannot be the exclusive determinant of behavior where an individual's control over the behavior is incomplete. By adding "perceived behavioral control," theory of planned behavior can explain relationship between behavioral intention and actual behavior. In addition, theory of planned behavior can explain the individual' social behavior by considering "social norm" as an important variable.

Limitations

The first limitation is that intention determinants are not limited to attitudes, subjective norms, and perceived behavioral control (32). There may be other factors that influence behavior. Empirical studies showed that only 40% of the variance of behavior could be explained using TRA or TPB(32, 33).

The second limitation is that there may be a substantial gap of time between assessment of behavior intention and the actual behavior being assessed(33). In that time gap, the intention of an individual might change.

The third limitation is that both TRA and TPB are predictive models that predict an individual's action based on certain criteria. However, individuals do not always behave as predicted by those criteria(33).

The theory of planned behavior has been used for many of HIV/AIDS prevention and intervention related researches. It has demonstrated effectiveness as predictors of condom use(33). Therefore, TPB could be taken as a predictor of condom use in HIV patients taking ART.

Based on 20 studies reviewed in United Kingdom focusing on the utility of the theory of planned behavior in predicting condom use, TPB was proven as useful in predicting both intention to use condom and condom use (42).

3. OBJECTIVES

3.1. General Objective

To assess the sexual behavior and determinants of condom use among HIV/AIDS patients who are on ART from North Showa Zone health facilities based on the theory of planned behavior.

3.2. Specific Objective

3.2.1. To assess the sexual behavior of patients who are taking ART

3.2.2. To estimate the prevalence of condom use in HIV patients receiving ART

3.2.3. To identify factors affecting condom use and other sexual practices among HIV/AIDS patients who are receiving ART

3.2.4. To assess intention to use condom among HIV/AIDS patients receiving ART using constructs of TPB

4. METHODS AND MATERIALS

4.1. Study area

The study was conducted among HIV patients who are on ART in North Showa Zone, Amhara regional state. The capital city of the Zone is Debre Birhan town which is 130 kilometers from Addis Ababa. Each woreda of the Zone has its own health center and the Zone have three hospitals rendering health services for the population including provision of ART to HIV patients.

4.2. Study design

Institutional based Cross- sectional quantitative study was conducted from March 2010 to May, 2011.

4.3. Source and study population

4.3.1. Source population

The source populations were those adult people living with HIV/AIDS who were taking ART in North Showa's health facilities.

4.3.2. Study population

The study populations were those HIV patients who were taking ART and have at least two visits (including the current visit) of ART from North Showa Zone health facility in the last 3 months and were sexually active 3 months prior to the study period.

4.4. Inclusion criteria and exclusion criteria

4.4.1. Inclusion criteria

- HIV patients whose age were 18 years and above,
- HIV patients who have been on ART for at least 3 month and above and who at least had 2 visits of ART
- Residents of North Showa Zone for at least 3 months,
- Patients Who were willing to participate

4.4.2. Exclusion criteria

- Patients who were seriously ill and unable to respond,
- Patients referred from outside the catchment area were systematically excluded.
- Patients who refused to participate

4.5. Sample size and Sampling Procedure

4.5.1. Sample size

Sample size was calculated using computer program (Epi info) with 95% confidence interval, 0.05 margin of error and 63.1% prevalence rate of consistent condom use

Applying the formula:

$$n = \frac{Z^2 \alpha/2\ p\ (1-p)}{d2} = 358$$

Where,

n= the minimum sample size

Z= the desired level of confidence interval 95% (1.96)

P=the proportion of consistent condom use among HIV patients who are on ART (63.1%) from Addis Ababa public hospitals (12).

d= margin of error 5% (0.05)

The final sample size was calculated using the finite population correction formula since the total population was less than 10,000

n_f = final sample size

$$n_f = \frac{n}{1 + n/N} = 306$$

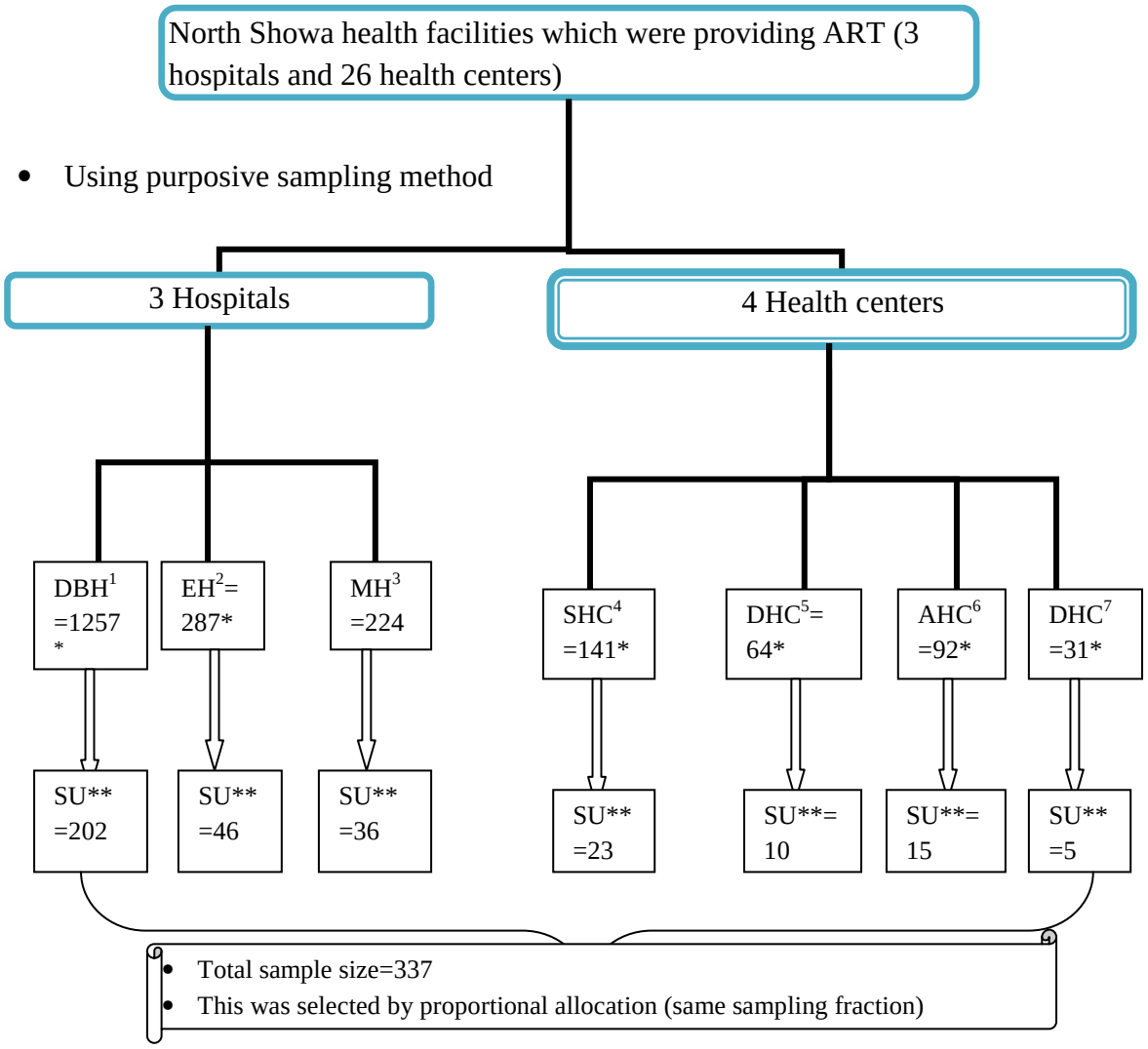
The total sample size with 10% anticipated rate of non response (10%) will be 337

n_f = 337

4.5.2. **Sampling procedures**

The study was conducted in North Showa health facilities which render ART services. Using Purposive sampling method 4 health centers and 3 hospitals were selected for study among 23 health centers and 3 hospitals based on geographical location, number of patients and duration since started providing ART. In the selected health facilities, a systematic random sampling method was employed to select representative sample of HIV patients who were on ART. The study units were selected by a proportional allocation to the number of patients on ART at each health facilities. Every six patient coming for services and fulfilling the inclusion criteria were interviewed in all selected health facilities. This is demonstrated in figure 1.

Figure 1: schematic presentation of sampling procedure of sexual behavior of HIV patients who are taking ART in North Shewa Zone, 2010/2011.



4.6.Data collection Instrument

Questionnaire was prepared based on the available literature reviewed to elicit sexual behavior and intentions regarding consistent condom use and theory of planned behavior constructs. The questionnaire addressed socio-demographic data, medical and other related factors, behavioral factors and sexual practice of the participants and these are mentioned as follows.

4.6.1. Variables

[1] =Debre Birhan referral Hospital, 2=Enat alem Ketema Hospital, 3= Mehal Meda Hospital, 4=Shiwaribit Health center, 5= Debresina health center, 6=Arerti health center, 7= Debre Birhan health center, *= total number of patients, **=study units taken in each health facilities

4.6.1.1. Dependent variables

The dependent variable of the study was consistent condom use and intention to consistent condom use of HIV patients who were on ART within the 3 months prior to the study period.

4.6.1.2. Independent variables

The explanatory variables that influence condom use intention of HIV patients who were on ART, selected on the basis of the literature review and from theory constructs. These factors were categorized into socio-demographic, sexual practice, medical and psychosocial related factors and behavioral factors. These are:

1. **Socio-demographic variables**(such as Age, Sex, level of education, ethnicity, Marital status, Occupation, Income level, Religion)
2. **Sexual practice(such as** number of sexual partners, types of sexual partners, HIV status of partner and disclosure status, discussion about condom use and HIV)
3. **Medical and psychosocial related factors (such as** duration of diagnosis of HIV, duration of start of ART, disease condition and Active substance use and alcohol use)
4. **Behavioral factors**

    4.1.Variables for attitude

    - Belief about the use of condom
    - Evaluation of condom use belief

    4.2.Variables for subjective norm

    - Normative belief towards condom use,
    - Compliance with condom use normative belief/ Motivation to comply /

    4.3. Variables for perceived behavioral control

    - Condom use control belief
    - Power of control of condom use belief

4.7. Data collection procedures and data quality management

4.7.1. Data collectors

For data collection, nine HIV counselors working at other ART clinic were used. Data collectors and supervisors were trained by the principal investigators for one day on the detail procedures of the task before the data collection.

4.7.2. Data Quality management

Pre test was done on 5% of the subjects in order to keep the quality of the data. The questionnaire was checked for completeness, clarity and consistency. The principal investigator checked the completeness of the collected questionnaire before data entry.
The questionnaire was originally prepared in English language and translated to Amharic language and then translated back to English to check for consistency.

A pre-coded data was entered using EPI info version 3.5.1. Range and skip checks were done automatically during data entry. Computer printouts of frequencies were used to check for outliners, errors were checked after completing data entry. The data was transported to SPSS Version 16 for analysis.

4.8. Data processing and analysis

Following the data collection, editing, data entry and data cleaning processes of all questionnaires was carried out. The analysis part contains descriptive statistics, bivariate analyses, logistic regression and linear regression.

At the bivariate stage, chi-square test was employed in order to identify the important explanatory variables which then those variables with a p value < 0.2 was retained for further investigation and entered in to regression models to control the confounding effect of various variables. Partial Correlation and Linear regression was used to assess the applicability of TPB model in predicting intention to use condom and other variables. Cronbach's alpha was also used to measure the internal consistency of the items used before constructing scale.

A five point Likert scale was used for measuring each variable of the model. Likert scale ranged from strongly disagree/not likely at all/completely uncertain/extremely undesirable to strongly agree/very likely/completely certain/extremely desirable.

4.9. Ethical considerations

Ethical clearance was obtained from School of public health research ethical committee, College of Health Sciences, Addis Ababa University. A formal supporting letter that explains the objectives, rationale and expected outcomes of the study was written to the study area from the School of Public Health, Addis Ababa University which requested cooperation. Accordingly, permission was obtained from medical directors or head of each

health facility. Informed written consent was obtained from the eligible after the nature of the study was explained to them in their local language. Finally, those randomly selected and voluntary patients participated in the research.

4.10. Operational definitions

Intention to use condom: the individual plan to use condom in the near future during sexual intercourse and it was measured by three items (1. how likely you intend to use condom consistently, 2. how likely you look for and request consistent condom use, and 3. how likely you accept consistent condom use if you visit condom rendering centers) with a response ranged from 1=not likely at all to 5=very likely. Each item were summed and its score was (3-15). The intention formation was strong for higher intention score.

Belief about the use of condom: the extent to which an individual think the advantage of using condom. It was measured by four items of assessing their thought on consistent condom use with a response ranged from Likert scale of 1= strongly disagree to 5= strongly agree. Each item was summed and was between a score of 4-20. The higher the sum scores the more favorable belief it is to use condom consistently.

Evaluation of condom use belief: the individual evaluation of the salient consequence resulted from using condom in the near future. It was measured by four items of evaluating the consequences of the above beliefs with a response ranged from Likert scale of 1=extremely undesirable to 5= extremely desirable. Sum of each item was between 4-20 score and shows the higher the number the more chance of positive evaluation.

Attitude towards the use of condom: an individual predisposition to respond in favorable or unfavorable manner towards the use of condom. It was composed from items of the behavioral belief and outcome evaluation. Attitude score is derived from the multiplication of each behavioral belief items with their corresponding outcome evaluation according to the theory.

Normative belief towards condom use: the perception held by an individual whether significant others think that s/he should use the condom. It was constructed by five item with a response ranged from Likert scale of 1=strongly disagree to 5= strongly agree. A sum score was made and ranges 5-25. The higher the sum scores the more perception of respondents on referents others thinking on condom use.

Motivation to comply of normative beliefs: the individual's motivation to comply with the specific referents wishes about using condom. It was made by five items correspondence with normative belief items with a response range from Likert scale 1=strongly disagree to 5= strongly agree. A sum score of the items were made and ranges 5-25.

Subjective norm of condom use: the individual perception that significant others think him/her to use condom as a normative action. It is composed from items of the normative belief and motivation to comply. Subjective norm score was derived from the multiplication of each normative belief items with their corresponding motivation to comply items according to the theory.

Condom use control belief: belief about the presence of factors that might hinder or facilitate the use of condom. It was measured by four items with a response of Likert scale 1= very unlikely to 5= very likely. Sum score was calculated by adding each items and the range was 4-20.

Power of control of condom use belief: perceived control ability of individuals to control factor that might hinder the use of condom in the coming two months. It was measured by four items with a response of Likert scale 1= completely uncertain to 5= completely certain. Sum score was calculated by adding each items and the range was 4-20.

Perceived control for the use of condom (perceived behavioral control): the perceived easy or difficulty associated with the use of condom. It is composed from items of the control belief strength and control belief power. Perceived behavioral control score was derived from the multiplication of each control belief strength items with their corresponding control belief power items according to the theory.

4.11. Dissemination of results

The thesis will be presented to Addis Ababa University, School of public health for partial fulfillment of the degree of Master of public health. The findings of this study will be submitted to Amhara Regional Health Bureau, and Federal Ministry of Health (FMOH). Additionally, the findings will be also presented to different scientific communities and will be submitted to local journals for possible publication.

5. RESULTS

5.1. Socio demographic characteristics

Table 1 displays the socio-demographic variables of the respondents. All (337) of the study units participated in the study. Less than a half (43.80%) was males and 56.20% of the respondents were females. The median age of the respondents was 32.00±9.66 (SD) and about half (46.00%) was in the age group of 25-34 years.

Most of them 245(72.90%) were orthodox, and 77(22.90%) were Muslim. In their ethnicity, the majority 278(83.20%) were Amhara followed by 25(7.50%) Oromo and 11(3.30%) Tigrae. In terms of educational status, 117(35.10%) were unable to write and read, 60(18.00%) read and write, 49(14.70%) were below grade 6, 83(24.90%) were between grade 7 to 12 and the rest were above grade 12.

About a quarter 85(25.40%) were singles, 147(43.90%) were married, 45(13.40%) were divorced and 58(17.30%) were widowed. The average monthly income was 38(12.20%) have no own income, 89(26.60%) of them don't know their income, 97(31.20%) below and equal to 500 birr, 64(20.60%) of them got between 501 to 1000 and 23(7.40%) above 1000 birr.

Table 1: socio demographic characteristics of respondents by gender in North Shewa, 2010/2011

Variable	Male	Female	Total
	Freq. (%)	Freq. (%)	Freq. (%)
Age category (years)			

18-24	8(5.4)	31(16.4)	39(11.6)
25-34	59(40.1)	96(50.8)	155(46.1)
35-44	45(30.6)	34(18.0)	79(23.5)
>45	35(23.8)	28(14.8)	63(18.8)
Religion			
Orthodox	112(76.2)	133(70.4)	245(72.9)
Muslim	30(20.4)	47(24.9)	77(22.9)
Protestant	4(2.7)	8(4.2)	12(3.6)
Catholic	1(0.7)	1(0.5)	2(0.6)
Ethnicity			
Amhara	120(81.6)	158(84.5)	278(83.2)
Oromo	14(9.5)	11(5.9)	25(7.5)
Tigrae	6(4.1)	5(2.7)	11(3.3)
Others	7(4.8)	13(7)	20(6)
Current marital status			
Single	38(25.9)	47(25.0)	85(25.4)
Married	76(51.7)	71(37.8)	147(43.9)
Divorce	12(8.2)	33(17.6)	45(13.4)
Widowed	21(14.3)	37(19.7)	58(17.3)
Educational status			
Unable to write and read	40(27.6)	79(77.0)	117(35.1)
Write and read	31(21.4)	29(15.4)	60(18.0)
$\underline{<}$ 6	21(14.5)	28(14.9)	49(14.7)
7-12	39(26.9)	44(23.4)	83(24.9)
>12	14(9.7)	10(5.3)	24(7.2)
Average monthly income			
Have no own income	9(6.4)	29(17.0)	38(12.2)
Don't know	39(27.9)	50(29.2)	89(28.6)
<=500	39(27.9)	58(33.9)	97(31.2)
501-999	35(25.0)	29(17.0)	64(20.6)
>=1000	18(12.9)	5(2.9)	23(7.4)
Current occupation			
Government employee	26(17.8)	11(5.8)	37(11.0)
Private employee	44(30.1)	37(19.6)	81(24.2)
Housewife	0(0.0)	41(21.7)	41(12.2)
Daily laborer	22(15.1)	31(16.4)	53(15.8)
Merchant	13(8.9)	29(15.3)	42(12.5)
Farmer	28(19.2)	16(8.5)	44(13.1)
Other	13(8.9)	24(12.7)	37(21.6)

5.2.Sexual behavior of respondents before tested positive, time of tested and started ART

Table 2 shows the sexual behavior of respondents before patients were tested. More than half of the respondents 189(56.8%) were tested through VCT and 144(43.2) were tested using PIHCT. The proportion of respondents who were tested before 24 months, 25-48 months and above 49 months was 170(50.7%), 109(32.5%) and 56(16.7%) respectively. By the time when the respondents knew their HIV status, 151(44.8%) of the respondents were married and the rest were single, divorced and widowed which were 91(27%), 39(11.6%) and 56(16.6%) respectively.

The majority of the respondents 246(76.2%) were never used condom before testing HIV and the rest were using Condom either consistently or inconsistently. Among these respondents who were using condom, it was only 14(4.3%) who were consistently using condom whereas the rest77(23.8%) was inconsistently. Of the respondents 187(55.5%) of them had history of multiple sexual partner before tested positive.

Also the duration since started ART, (67.3%) was less than 24months, (24.4%) were b/n 25 to 48 months and (8.3%) were above 49 months.

Table 2: Sexual behavior of respondents by various characteristics in North Shewa health facility, 2010/2011.

Characteristics	Frequency	Percentage (%)
The types of HIV counseling they used to be tested		
VCT	189	56.8
PICHT	144	43.2
Total	333	100.0
The duration since tested positive (months)		
<24	170	50.7
25-48	109	32.5
>49	56	16.7
Total	335	100.0
Marital status by the time they know their HIV status		
Single	91	27.0
Married	151	44.8
Divorced	39	11.6
Widowed	56	16.6
Total	337	100.0
History of condom use before testing HIV		
Yes	77	23.8
No	246	76.2
Total	323	100.0
Condom use pattern before testing HIV		
Consistently used	14	4.33
Inconsistently used	63	19.5
Not used at all	246	76.6
Total	323	100.0
Number of sexual partners before tested HIV		
Single	150	44.5
Multiple	187	55.5
Total	337	100.0
The duration since started ART		
<24	226	67.3
25-48	82	24.4
>49	28	8.3
Total	336	100.0

Note: Total numbers of various variables differ because of missing.

5.3.Sexual behavior of the respondents who are currently on ART

As shown in table 3, 209(62.0%) of the respondents were using condom consistently in the last 3 months whereas the remaining 128(38.0%) were either using condom inconsistently or did not use at all. Concerning with the respondents number of partners they had had in the last 3 months, 193(57.3%) of them had single partner and 144(42.7%) of them had multiple sexual partner. Of those who reported single partnership, 153(78.9%) of them were with steady types of partners and the rest 41(21.1%) were with casual types. Among those reporting multiple partnership, 42(47.7%) of them were with casual type, 12(13.6%) were with steady type and the remaining were with both types of partner. Additionally regarding with the types of partner with whom they did not use condom, 48(38.7%), 56(45.2%) and 20(16.1%) were for steady, casual and both types of partner respectively.

In the occasion of their last sex, 249(73.9%) of the respondents used condom and the rest did not use condom. Generally the respondents did sex without using condom with various types of partner sero status. Sixty seven 67(52.3%) of the respondents were with unknown HIV sero-status, 34(26.6%) of them were with positive HIV sero-status and the 27(21.1%) were with negative HIV sero-status.

Regarding with disclosure of their HIV sero-status to their partners, 167(49.6%) of them disclosed their sero-status to partner and the rest 170(50.4%) either disclosed partly or did not disclose at all. Again 216(64.1%) of the respondents did not discuss or partly discussed about condom use and safe sex with their partners and 121(35.9%) of them discussed with their partners.

Table 3: Sexual behavior of HIV patients who were currently on ART in North Shewa Zone, 2010/2011.

Variable	Frequency	percentage (%)
Number of partner in the last 3 months		
Single	193	57.3
Multiple	144	42.7
Total	337	100.0
Condom use pattern in the last 3 months		
Consistently used	209	62.0
Inconsistently used	76	22.6
Not used at all	52	15.4
Total	337	100.0
Types of partner for single		
Steady partner	153	78.9
Casual partner	41	21.1
Total	194	100.0
Types of partner for multiple		
Steady partner	12	13.6
Casual partner	42	47.7
Both type	34	38.6
Total	88	100.0
Types of partner with whom the respondents didn't use condom consistently*		
Steady	48	38.7
Casual	56	45.2
Both	20	16.1
Total	124	100.0
History of condom use in the last sex		
Yes	249	73.1
No	88	26.1
Total	337	100.0
Partner sero status with whom the respondents had sex without using condom		
Negative	27	21.1
Positive	34	26.6
Unknown	67	52.3
Total	128	100
Disclosure of sero-status to partner		
Disclosed	167	49.6
Not disclosed/disclosed partly	170	50.4
Total	337	100.0
Discussion about using condom and safe sex		
Discussed	121	35.9
Not discussed/discussed partly	216	64.1
Total	337	100.0

*4 missing

5.4.Medical and psycho-social related assessments

Table 4 shows the medical and psychological related assessments of the respondents. Among the respondents, 43(12.8%) of them had reduced concern to safe sex and condom use because they were taking ART and the rest were have no difference in action with their previous habit. In their drug regimen, only 281(83.4%) of the respondents were using their ART drugs strictly as per the prescription and the rest 56(16.6%) missed their tablets of medication in the last 3 months.

The proportion of respondents 91(27.0%) were symptomatic and 246(73.0%) were asymptomatic. Regarding with respondents substance addiction, only 29(8.6%) of them reported to be addicted. Of these 23(79.3%) of them were Khat and 6(20.7%) cigarette smoking with the two-third of them did it three and less than 3 times per week. The proportion of respondents who ever drunk alcohol was 49(14.5%) and the rest had no drinking habit.

Table 4: Medical and Psycho-social related variables of respondents in North Shewa Zone, 2010/2011.

Characteristics	Frequency	percentage (%)
Reduced concern of safe sex because of ART		
Yes	43	12.8
No	294	87.2
Total	337	100.0
Missing of tablets in the last 3 months		
Yes	56	16.6
No	281	83.4
Total	337	100.0
HIV status at the time of data collection		
Symptomatic	91	27.0
Asymptomatic	246	73.0
Total	337	100.0
Substance addiction		
Yes	29	8.6
No	308	91.4
Total	337	100.0
With which types of addiction you are addicted		
Khat	23	79.3
Smoking	6	20.7
Total	29	100.0
Proportion of ever drunk Alcohol		
Yes	49	14.5
No	288	85.5
Total	337	100.0
Number of drinking per week		
<=3	40	81.6
>3	9	18.4
Total	49	100.0

5.5.Reasons mentioned for not using condom during sexual intercourses

Figure 1shows the range of reasons mentioned by the respondents for not using condom during sexual intercourse. Many 84(47.2%) of them was because of both the partners already had HIV followed by 33(16.2%) of the respondents partner refusal, 20(11.2%) of them didn't know condom reduce the risk of re-infection, 11(6.2%) of them was drunk and didn't think of condom use, 9(5.1%) of them being condom is against their religion and the same proportion 9(5.1%) for wanted to have child.

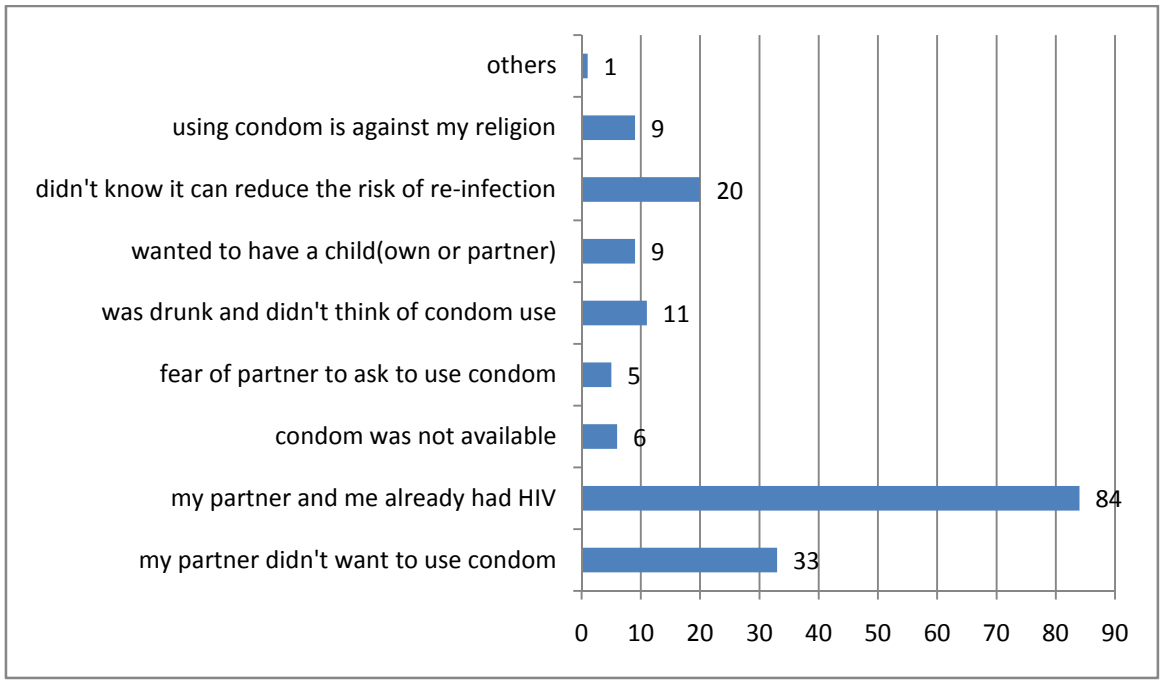


Figure 2: Reasons mentioned for not using condom in the last 3 months among respondents in North Shewa Zone, 2010/2011.

5.6. Bivariate analysis of socio demographic characteristics and consistent condom use

Table 5 displays the bivariate analysis between socio-demographic characteristics with consistent condom use. About 44.0% of males and 56.0% of females had used condom consistently in the last three months. Less than half (44.5%) between the age (25-34) were using condom consistently. About half (47.6%) of married respondents were using condom consistently among those who were practicing.

Table 5: Socio-demographic characteristics and consistent condom use of ART attendants in North Showa Zone, 2010/2011.

Characteristics		condom use			
		Consistent	Inconsistent /not used at all	p-value	COR (95% CI
Sex					
	Male	92(44.0%)	55(43.3%)	0.89	0.97(0.62, 1.52)
	Female	117(56.0%)	72(56.7%)		1
Age					
	18-24	27(12.9%)	12(9.4%)	0.25	0.61(0.26, 1.41)
	25-34	93(44.5%)	62(48.4%)	0.76	0.91(0.51, 1.65)
	35-44	52(24.9%)	27(21.1%)	0.33	0.71(0.36, 1.40)
	>=45	37(17.7%)	27(21.1%)		1
Educational status					
	Unable[2]	68(32.9%)	50(39.4%)	0.41	1.47(0.58, 3.70)
	Write[3]	31(15.0%)	29(22.8%)	0.21	1.87(0.70, 5.03)
	<=6	38(18.4%)	11(8.7%)	0.32	0.58(0.20, 1.71)
	7-12	54(26.1%)	29(22.8%)	0.88	1.07(0.41, 2.81)
	>=12	16(7.7%)	8(6.3%)		1
Marital status					
	Single	48(23.1%	37(28.9%)	0.79	1.09(0.56, 2.15)
	Married	99(47.6%)	48(37.5%)	0.24	0.69(0.37, 1.29)
	Divorced	27(13.0%)	19(14.8%)	0.99	0.99(0.45, 2.19)
	Widowed	34(16.3%)	24(18.8%)		1
Average monthly income					
	No income	18(9.5%)	20(16.4%)	0.178	2.08(0.72, 6.07)
	Don't know	65(34.2%)	24(19.7%)	0.461	0.69(0.26, 1.84)
	<= 500	61(32.1%)	37(30.3%)	0.791	1.14(0.44, 2.94)
	501-999	31(16.3%)	33(27.0%)	0.170	1.99(0.74, 5.36)
	>= 1000	15(7.9%)	8(6.6%)	`	1
Religion					
	Orthodox	168(80.4%)	78(60.9%)	0.589	0.46(0.03, 7.52)
	Muslim	35(16.7%)	42(32.8%)	0.899	1.20(0.07, 19.89)
	Protestant	5(2.4%)	7(5.5%)	0.826	1.40(0.07, 28.12)
	Catholic	1(0.5%)	1(0.5%)		1

[2] Unable to write and read

[3] Write and read

5.7. Bivariate analysis of sexual behavior before tested positive, time of tested and started ART

As shown in table 6, 40.2% of married respondents had used condom consistently compared to 19.1% of widowed respondents and the odds of consistent condom use among married was about two times more than (COR= 1.99, 95% CI: 1.03 to 3.87) the widowed by the time when they know their HIV status.

More than three fourth (81.4%) of those who did not use condom and 18.6% of those who used condom before tested positive have been engaged in consistent condom use practice after they begun ART. The odds of engaging in consistent condom use among those who were using condom before tested HIV was 2.1 times higher than those who were not using condom before tested HIV(COR=2.1, 95% CI: 1.24 to 3.50).

Table 6: Consistent condom use of the respondents by various characteristics in North Shewa, 2010/2011.

Characteristics	condom use		p-value	COR (95% CI
	Consistent	Inconsistent or Not used at all		
Duration since tested positive				
<=24	98(48%)	72(57.1%)	0.32	1.39(0.73, 2.65)
25-48	73(35.6%)	36(28.6%)	0.84	0.93(0.46, 1.87)
>=49	34(16.6%)	18(14.3%)		1
Marital status by the time you know your HIV status				
Single	57(27.3%)	34(26.6%)	0.28	1.49(0.73, 3.06)
Married	84(40.2%)	67(52.3%)	0.04	**1.99(1.03, 3.87)***
Divorced	28(13.4%)	11(8.6%)	0.97	0.98(0.40, 2.43)
Widowed	40(19.1%)	16(12.5%)		1
Condom use history before tested positive				
Yes	37(18.6%)	40(32.3%)	0.01	**2.09(1.24, 3.50)***
No	162(81.4%)	84(67.7%)		1
Number of sexual partner before tested HIV				
Single	95(45.5%)	55(43.0%)	0.66	0.90(0.58, 1.41)
Multiple	114(54.5%)	73(57.0%)		1
Duration since started ART				
<= 24	132(63.5%)	94(73.4%)	0.82	1.10(0.49, 2.46)
24=48	59(28.4%)	23(18.0%)	0.27	0.60(0.25, 1.48)
>= 49	17(8.2%)	11(8.6%)		1

***Statistically significant at P-value ≤0.05**

5.8. Bivariate analysis of sexual behavior of the respondents after ART started with consistent condom use

As depicted in Table 7, 62.7% of the respondents who had single partner and 37.3% of the respondents who had multiple sexual partners consistently used condom. The odds of using condom consistently among those who had multiple sexual partners were (COR= 1.79; 95% CI: 1.15 to 2.79) compared to those who had single partners.

With regard to the types of current sexual partnership after ART commencement, from 131 respondents who had single partnership and used condom consistently, 84.7% of them were with steady partnership and 15.4% were with casual relation. The odds of consistent condom use among those with casual types of partnership were 2.5 times higher than (COR= 2.53; 95% CI: 1.26 to 5.11) among those respondents with a steady partner who had a single partner.

Concerning about partners sero-status with whom the respondents have sex without using condom, 24.1% of them had history of sex with negative sero-status, 19.3% of them with positive and 56.6% with unknown sero-status practiced consistent condom use. The odds of consistent condom use among the respondents who did sex with positive sero-status were (COR=2.63; 95% CI: 1.11 to 6.25) compared with unknown HIV sero-status of the sexual partners.

In relation to discussion about using condom and safe sex with corresponding partner's, 49.3% of the respondents discussed about safe sex and used condom consistently whereas 50.7% were either at all or partly did not discuss about condom use and safe sex but used condom consistently. The odds of consistent condom use among the respondents who did not discuss about condom use and about safe sex was almost six folds more than respondents who discussed about condom use and safe sex with their partner's(COR= 5.94; 95% CI: 3.37 to 10.47).

Table 7: sexual behavior of the respondents after ART with consistent condom use in North Shewa, 2010/2011.

Characteristics	condom use		p-value	COR (95% CI)
	Consistent	Inconsistent or Not used condom at all		
Number of partner in the last 3 months(n=337)				
Single	131(62.7%)	62(48.4%)		1
Multiple	78(37.3%)	66(51.6%)	0.01	**1.79(1.15, 2.79)***
Types of partner for single (n=194)				
Steady	105(84.7%)	48(68.6%)		1
Causal	19(15.35%)	22(31.4%)	0.01	**2.53(1.26, 5.11)***
Types of partner for multiple(n=88)				
Steady	5(14.7%)	7(13.0%)	0.56	0.67(0.17, 2.59)
Casual	18(52.9%)	24(44.4%)	0.35	0.64(0.25, 1.64)
Both	11(32.4%)	23(42.6%)		1
Partner sero-status with whom the respondent had sex without using condom(n=125)				
Negative	20(24.1%)	6(14.3%)	0.58	0.74(0.26, 2.14)
Positive	16(19.3%)	17(40.5%)	0.03	**2.63(1.11, 6.25)***
Unknown	47(56.6%)	19(45.2%)		1
Disclosure to partner(n=337)				
Disclosed	108(51.7%)	59(46.1%)	0.32	0.80(0.52, 1.24)
Not/ partly**	101(48.3%)	69(53.9%)		1
Discussion about using condom and safe sex(n=337)				
Discussed	103(49.3%)	18(14.1%)		1
Not /partly discussed	106(50.7%)	110(85.9%)	0.001	**5.94(3.37, 10.47)***

**not/partly disclosed

5.9.Bivariate analysis of psycho social and medical related factors with consistent condom use of patients on ART.

As shown in Table 8, 17(8.1%) of the respondents concern about safe sex was reduced because of ART and the odds of consistent condom use among those whose concern was reduced were 2.9 times higher than(COR= 2.88; 95% CI: 1.49 to 5.55) those with respondents whose concern was not affected.

Table 8: Psychosocial and medical related variables of respondents with consistent condom use in North Shewa, 2010/2011.

Characteristics	condom use			
	Consistent	Inconsistent or Not used at all	p-value	COR (95% CI)
Reduced concern of safe sex b/c of ART				
Yes	17(8.1%)	26(20.3%)	0.002	**2.88(1.49, 5.55)***
No	192(91.9%)	102(79.7%)		1
Missing of tables				
Yes	33(15.8%)	23(18.0%)	0.602	1.17(0.65, 2.1)
No	176(84.2%)	105(82.0%)		1
HIV status at the time of data collection				
Symptomatic	53(25.4%)	38(29.7%)	0.385	1.24(0.76, 2.03)
Asymptomatic	156(74.6%)	90(70.3%)		1
Substance addiction				
Yes	16(7.7%)	13(10.2%)	0.436	1.36(0.63, 2.92)
No	192(92.3%)	115(89.8%)		1
Have you ever drunk alcohol?				
Yes	34(16.3%)	15(11.7%)		1
No	175(83.7%)	113(88.3%)	0.252	1.46(0.76, 2.81)
Number of times times per week you drunk				
<= 3	23(92.0%)	17(70.8%)		1
>3	2(8.0%)	7(29.2%)	0.072	4.74(0.87, 25.71)
Which types of substance you are addicted				
Khat	12(70.6%)	11(91.7%)	0.194	4.583(0.46, 45.61)
Smoking	5(29.4%)	1(8.3%)		1

5.10. Multivariate analysis of consistent condom use with various important variables

As depicted in table 9, factors that are independently associated with consistent condom use were explored using multivariate analysis. Those variables that showed significant association with consistent condom use ($p \leq 0.05$) from bivariate analysis were included in multivariate analysis after checking for multicollinearity.

Marital status of the respondents when they knew their HIV status (COR= 2.691, 95% CI: 1.255, 5.773), condom use history before tested HIV (COR= 1.976, 95% CI: 1.082, 3.609) are factors independently associated with consistent condom use in the multivariate analysis.

Table 9: Multivariate analysis of consistent condom use after ART with important variables in North Shewa, 2010/2011.

Characteristics	condom use				
	Consistent	Inconsistent /not used at all	p-value	COR (95% CI)	AOR (95% CI)
Marital status by the time you know your HIV status					
Single	57(27.3%)	34(26.6%)	0.276	1.49(0.73, 3.06)	1.88(0.83, 4.27)
Married	84(40.2%)	67(52.3%)	0.041	**1.99(1.03, 3.87)***	**2.69(1.26, 5.77)***
Divorced	28(13.4%)	11(8.6%)	0.969	0.98(0.4, 2.43)	1.53(0.54, 4.32)
Widowed	40(19.1%)	16(12.5%)		1	1
Condom use history before tested HIV and start of ART					
Yes	37(18.6%)	40(32.3%)	0.006	**2.09(1.24, 3.50)***	**1.98(1.08, 3.61)***
No	162(81.4%)	84(67.7%)		1	1

***Statistically significant at p-value ≤ 0.05**

5.11. Descriptive statistics of social cognition model

The theory of planned behavior constructs descriptive statistics are depicted in table 10. Regarding with behavioral belief, almost two third (66.7%) of the respondents behavioral belief were favorable and 61.7% of outcome evaluation were desirable towards intention to use condom. The respondent's perception about normative belief, 55.7% of them were perceived positively what significant others think and more than half of the respondents (57.5%) had good motivation to comply.

The other constructs were control belief strength, 47.8% of the respondents had belief about the presence of factors that facilitate the use of condom and 52.2% of them had belief about the presence of factors that hinder the use of condom and with regard to control belief power 52.95% were above the mean and 47.1% were below the mean.

Concerning with intention of the respondents on consistent condom use, 55.8% of them had showed good intention of it.

More than half (54.2%) of the study participants had good attitude toward the intention of consistent condom use. Regarding the social pressure, 53.4% of the respondents were providing high value to social pressure in order to have more intention to use condom. The other variable was perceived behavioral control, 60.2% of the participants perceived easy for intention to consistent condom use.

Table 10: Descriptive statistics of TPB constructs of the respondents taking ART in North Shewa Zone, 2010/2011.

Variable	Mean	SD	min	max
1. Behavioral belief	**4.25**	**0.58**	**1.75**	**5**
2. Outcome evaluation	**4.38**	**0.86**	**1**	**5**
3. Normative belief	**3.71**	**0.85**	**1**	**5**
4. Motivation to comply	**3.70**	**0.89**	**1**	**5**
5. Control belief strength	**3.78**	**0.74**	**1**	**5**
6. Control belief power	**3.76**	**1.04**	**1**	**5**
7. Intention*	**3.78**	**1.23**	**1**	**5**
8. Attitude	**74.62**	**17.59**	**17**	**100**
9. Subjective norm	**74.36**	**28.19**	**9**	**125**
10. Perceived behavioral control	**60.12**	**22.66**	**8**	**100**

*Intention to consistent condom use

5.12. Partial correlation among the components of Theory of planned behavior and some other variables.

Table 11 shows the partial correlation coefficient of attitude, subjective norm, perceived behavioral control, intention to consistent condom use, educational status, average monthly income and condom use history. Each of the constructs was significantly and positively correlated with intention to consistent condom use. Among the constructs, subjective norm was with highest Pearson's correlation (r= 0.41, p<0.001) followed by perceived behavioral control (r=0.38, p<0.001 and attitude (r= 0.33, p<0.001). This positive Pearson's r among the variables stated above shows that the increase of TPB constructs will also increase the behavioral intentions of the respondents to use condom consistently.

Table11. Partial correlation of HIV patients taking ART with important variables in North Shewa Zone, 2010/2011.

Variable	1	2	3	4	5	6
1. Attitude	0.62					
2. Subjective norm	0.312**	0.74				
3. PBC	0.194*	0.309**	0.76			
4. Average Income [A]	-0.023	0.000	-0.091	-		
5. Condom use[B]	0.029	-0.073	-0.059	-0.077	-	
6. Intention [I]	0.309**	0.394**	0.356**	-0.025	0.045	0.98
Mean	74.62	74.36	60.12			3.78
SD	17.59	28.19	22.66			1.23

PBC= Perceived behavioral control
A= Average monthly income
B= Condom use history before tested HIV
SD= Standard Deviation
Significant at **p ≤ 0.001, *p≤0.05, controlled for age, educational status, sex and marital status
I= Intention to consistent condom use
Cronbatch's alpha is written diagonally for each theory of planned behavior constructs

5.13. Linear regression analysis for TPB constructs and socio-demographic variables

Table 12 shows the linear regression analysis. The analysis was both simple linear and multiple linear regressions between the outcome variable (intention to consistent condom use) and with various predictor variable (socio-demographic variable (sex, age, educational status, average monthly income, religion, and current marital status), attitude, subjective norm and perceived behavioral control). Multicollinearity was checked for each predictor variables and there was no inter correlation among them.

In the first step of the analysis, all the socio-demographic variables mentioned above were entered and it explains 5.6% of the variance in intention to use condom consistently. Next, each constructs of the theory were entered independently followed by in combination. When linear regression was performed for each of the constructs one by one, largest proportion of intention to consistent condom use was explained by subjective norm (19.0%) followed by perceived behavioral control (14.6%) and attitude alone explained 8.6% of the variance in the outcome. Nevertheless, when the constructs analyzed in combination in order to know how much percent they explains the intention, attitude and subjective norm explained 23.6% of the variance in intention to use condom. When perceived behavioral control is added with attitude and subjective norm, there was additional 3.9% variance in the intention with total of explaining 29.1% of the variance in the intention.

As of the Standardized beta coefficient in the last multiple regression model, the strongest predictor of intention to consistent condom use was perceived behavioral control (β=0.284, P<0.001) followed by subjective norm (β=0.261, p<0.001) and attitude (β=0.209, p<0.005). But in the simple linear regression, the most strong predictor was subjective norm (β=0.442, p<0.001) as of the perceived behavioral control was (β=0.386, p<0.001) and attitude was (β=0.297, p<0.001).

Table 12: Linear regression analysis of socio-demographic variables and TPB constructs of HIV patients taking ART with intention to use condom in North Shewa, 2010/2011.

Variable Entered	R	R^2	Adj.R^2	R^2 change	F-change	p-value	standard beta coefficient		
							β_A	β_{SN}	β_{PBC}
Demogra. [D]	0.242	0.059	0.056	0.059	19.119	0.001			
At.	0.297	0.088	0.086	0.088	32.331	0.001	o.297*		
SN	0.442	0.195	0.190	0.195	42.177	0.001		0.442*	
PBC	0.386	0.149	0.146	0.149	56.903	0.001			0.386*
At. + SN	0.494	0.244	0.236	0.051	11.663	0.001	0.239*	0.362*	
At.+SN+PBC	0.551	0.304	0.291	0.039	9.1117	0.003	0.209**	0.261*	0.284*

***p-value significant at $\leq$ 0.001, ** P-value significant at $\leq$ 0.005**

At= attitude

SN= subjective norm

PBC= perceived behavioral control

D= socio demographic variable including sex, age, educational status, average monthly income, religion, marital status.

6. DISCUSSION

This study has tried to assess the sexual behavior and determinants of condom use of those HIV patients who are taking ART and also shows the utility of theory of planned behavior for predicting the intention to use condoms among these patients.

The finding of the study showed that, the proportion of consistent condom use was 62.0%. This figure was in line with a research done in Addis Ababa public hospitals which was 63.1%(17) but less than a study done in rural Uganda which was 82% (20). It was also slightly low than a study done in Aliwal North Hospital which was 70% consistent condom use(29). This variation could be because of the study settings influence the respondent's socio-demographic condition which could in turn affects the outcome variable.

About three fourth (73.1%) of the respondents in this research used condom in the last sex which was in line with a study done in Addis Ababa public hospitals (70.4%)(12)and with systematic review studies in developing countries(80.2%)(24) whereas higher than with a study done in Mombassa (44%)(23). The difference with the last study could be because of a variation in the study design of the two researches.

Finding related with number of partners were too far with a study done in AA public Hospitals which was(10%) (12) and 42.7% for this study with the number of multiple partners of respondents. This difference might be the variation in the Urban and rural settings. And also those having multiple number of partner in this study was (COR=1.79; 95% CI: 1.45 to 2.79) times more likely to use condom consistently than those with single partner. This could be due to fear of infecting many people.

Again in this study, the types of partner who had multiple partners, the majority (47.7%) of them had casual partner and this is slightly low when compared with AA public hospitals reports (56.7%) (12) and the result obtained for multiple partner was higher with current study than other developing countries which were 34%(24).

In this study, respondents who had sex without using condom with unknown HIV status was higher with Uganda study (33%) (23) and Cote d'Ivoire study (32.8%). But the findings from this study(26.6%) was less compared with the Cote d'Ivoire studies (44.6%) in terms of respondents sexual experience without using condom with positive partner. (25). This study shows that 73.4% of the respondents had sex with unknown or with negative partner sero-status which is almost equivalent compared with a study done in Mombassa 78% (23). Another important finding of this research was, the odds of consistent condom use among the respondents who had sex with positive ser-status were (COR= 2.63; 95% CI: 1.11 to 6.25) compared with those Unknown HIV sero-status of the

sexual partner. This could be because of giving notice to HIV re-infection but it is prone for rapid HIV transmission.

The findings from this study about the respondents who had single partner with steady types of relationship was78.9% which is lower than a study done in Addis Ababa public hospitals (90.2%) but with causal types of relation, this study (21.1%) was higher with Addis Ababa public hospital study (9.8%). In this research, respondents who had multiple partners with casual types of relation (47.7%) are slightly lower than a study done in Addis Ababa public hospitals (56.7%) but with steady types of relation (13.6%) and both types of relationship (38.6%) was higher with a study done in Addis Ababa public hospitals which was 8.3% for steady and 35% for both types (12).

A finding from this research shows that the respondents who had sex without using condom with casual types of partner (45.16%) was higher than a study done in Addis Ababa public hospitals (16.2%). This study also shows the respondents who had sex with steady types of partners (38.7%) which was lower than a study done in Addis Ababa public hospitals (77.0%) (12). This might be because of socio-demographic variations between the rural and urban populations

Largest proportion (41.2%) of the reason why the respondents were not using condom was because of the partners already infected, 16.2% because of their partner did not want to use condom, 9.2% because they did not know condom could reduce the risk of re-infection and 5.4% were drunk and did not think of condom use. This is in contrary with a study done in Aliwal North hospital. The reason mentioned in Aliwal North hospital was (43%) alcohol, (23%) perceived lack of trust, (13.5%) feel that condom spoils the pleasure. However, religious belief (4%) observed in this study was concurrent with Aliwal North hospital which was 4.4% (29). This variation in the range of reasons mentioned studies could be because of the socio-demographic and awareness difference.

The proportion of patients who did not take their tablets accordingly in this study was 16.6% less than the study done in Bulongwa, Tanzania which was 24% (28). This might be due to awareness difference in the development of new strain of HIV virus.

In this study, disclosure status of sero-positivity to partner was 49.6% and discussion about using condom with partners was 35.9%. These findings shows that large proportions of the

respondents were not either disclose their sero-status or discuss using condom with their sexual partner during sex. This might be because of lack of knowledge of their effects in improving condom use practices. The other reason may be majority of the respondents did not use condom because of being both partners are HIV patients. Likewise they may consider discussion would not have a benefit. Therefore, one has to address these variables clarity with the respondents during counseling.

As the theory of planned behavior explains, an individual's intent to engage in a behavior (a behavior in this study is consistent condom use) is a direct determinant of whether he or she will act or practice. As a general rule, the more favorable the attitude toward behavior and subjective norm, and the greater the perceived behavioral control, the stronger the person's intention to perform the behavior in question should be. Intention to perform a behavior is a function of attitudes toward engaging in the behavior, perceived normative pressure to perform the behavior and perceived behavioral control.

More than half percent of the respondents in each constructs were either good or desirable beliefs or controls their beliefs in intention to consistent condom use. Nevertheless, in this study the theory explained 29.1% of variances in intention to consistent condom use which is slightly smaller with a study done in rural Ethiopian population which was 36% of the variance in intended condom use(36). Another Meta-analytic review in UK shows that theory of planned behavior explains 39% variation of the intention(37). And with a study done in Ethiopian female adolescent's contraceptive use, the TPB explained 29% of variation in intention to use contraceptives(38).

In this study, each of the theory's constructs was positively correlated with intention to use condom in this study. Subjective norm was the first strong positively correlated variables ($r= 0.394$: $p= <0.001$) followed by perceived behavioral control ($r= 0.356$: $p=<0.001$) and attitude($r= 0.309$: $p=<0.001$). This suggests that each variable explain the variation in intention to consistent condom use. The observed findings will help the programmers to which variable they must give attention in order to have the desire outcome of the behavior since intention is the proximal determinants of behavior. As a contingency, other variable were also included in the correlation analysis and displayed that average monthly income was negatively correlated with intention to use condom.

The largest variance of intention to use condom consistently was explained by subjective norms (19.0%). This finding is in line with a study done in rural population of Ethiopia (36) followed by perceived behavioral control (14.6%) and attitude (8.6%) in this study. This finding shows that significant others social pressure are the most important drive for the behavioral intention of the respondents. One's control over their belief had also a big contribution in the intent to use condom. Although attitude (8.6%) had less contribution in the intention to consistent condom use compared with other constructs of this study, till significant proportion of implications it had over affecting behavioral intentions. Therefore, in programmatic areas, focusing on how much an individual feels social pressure to use condom (how ART patient's salient referents think them to use condom) and their feeling in control of the action in question are more important areas in the control and prevention of the disease. Considering an individual belief would also take part in improving the intention to use condom.

In this study, attitude and subjective norm explains 23.6% of the variance in intention to use condom which was less than a study done on the documentation behavior of nurse's which was 46.1%(39). This discrepancy could be with the low contribution of attitude in case of this study.

The other area of focus in this study was looking standard beta coefficient of the TPB constructs and socio-demographic characteristics, the strongest positive predictor of intention to use condom based on simple linear regression was subjective norm about condom use which was in line with a study entitled "subjective norms about condoms are better predictors of use and intention to use than attitudes"(40). Whereas the second most important positive predictors of the explanatory variable according to this study were perceived behavioral control and the last but still significant predictor was attitude according to the simple linear regression. When we see the multiple linear regression of the constructs, the most strong predictor of intention to use condom was perceived behavioral control (β=0.284; p<= 0.001) otherwise the rest constructs were similar in strength of sequence like simple linear regression. Most importantly these figure tells that interventions to improve intention to use condom should targeted on improving of relevant other's people belief and the total set of accessible control belief on condom use are useful

than planning to attempt alteration of behavioral beliefs about, and attitudes toward condoms use in more focus. Other studies done in South Africa on TRA/TPB in a work place HIV/AIDS health promotion program, intention to use condom strength was explained in terms of standardized regression coefficient and it shows that attitude was the most significant predictor followed by perceived behavioral control(41). This might be because of the setting and the intended intention difference between the two studies.

Additionally, socio-demographic variables were also included in the linear regression and explained 5.6% of the variance in intention to use condom. Therefore, including of these variables would have also importance in elevating the desired intention.

7. STRENGTHS AND LIMITATIONS OF THE STUDY

7.1.Strengths

- Has used a theory which has its own pre-determined constructs and would give an appropriate way to interventions

- The study gives an insight about condom use of HIV patients who are on ART using behavioral explanation of the respondent's volitional and non volitional actions.
- The study provides base line information for further research and a guide for program planners in the prevention of transmission and re-infection of HIV/AIDS among peoples.

7.2.Limitations

- The study was a cross sectional study which may not better explain the intention and the actual behavior being the prevention is in the action.
- Being the study too sensitive, there could be some misinformation or missing in some of the variables even though there was no non respondents
- Lack of similar studies for explicit or exhaustive discussion
- Not being supplemented by qualitative studies for more solicitude of ideas about sensitive issue

8. CONCLUSIONS

- There were significant proportions (38%) of inconsistent condom use or not used condom at all among the respondents.

- Large percent (42.7%) of the respondents had had multiple sexual partners. Half (49.6%) of the respondents disclosed their sero-status to the partner and less proportion (35.9%) of them discussed about using condom and safe sex with their sexual partners.
- Theory of planned behavior components had fairly explained the process of intention to use condom of the study respondents.
- Each of the TPB constructs was positively associated with the intention to consistent condom use intention.
- Perceived behavioral control was found to be the main predictor of intention to use condom among the respondents followed by subjective norms from the combined analysis of the components.
- TPB was applicable in explaining the intention to consistent condom use in HIV patients who were on ART. It gives hint to consider the social pressure, individual belief and its control.

9. RECOMMENDATIONS

Based on the findings of the study, the following recommendations are proposed:

@ It is known that consistent condom use is effective prevention strategies to abolish the transmission and re-infection of HIV/AIDS. Although condom use has

increased substantially among patients who are on ART, still inconveniences of consistent condom use among the patients were the biggest challenge. Counselors have to tailor the information of consistent condom use in each visit without hesitating.

@ A range of reason for not using condom by the respondents was identified. Therefore, a series of counseling that targets these reasons is necessary.

@ Improving disclosure of status to partners should be encouraged through their counselor in each visit of ART.

@ HIV/AIDS counseling and education need to focus on considering social pressure or the behaviors what their referent thinks about HIV/AIDS prevention and control for promoting consistent condom use of patients and avoiding practices against this action.

@ Programmatic intervention should be targeted on improving the intention through subjective norm and perceived behavioral control efforts.

@ Further research, to link the actual behavior of consistent condom use with intention to use condom consistently through prospective cohort study should be done to know their correlation and the rigor effects on the prevention and transmission of the disease.

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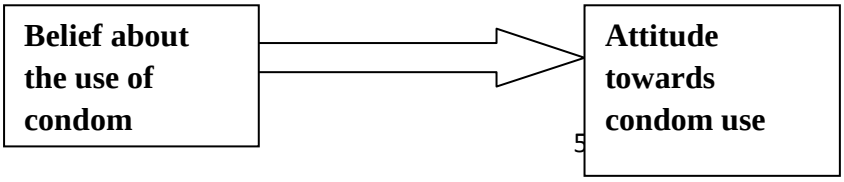
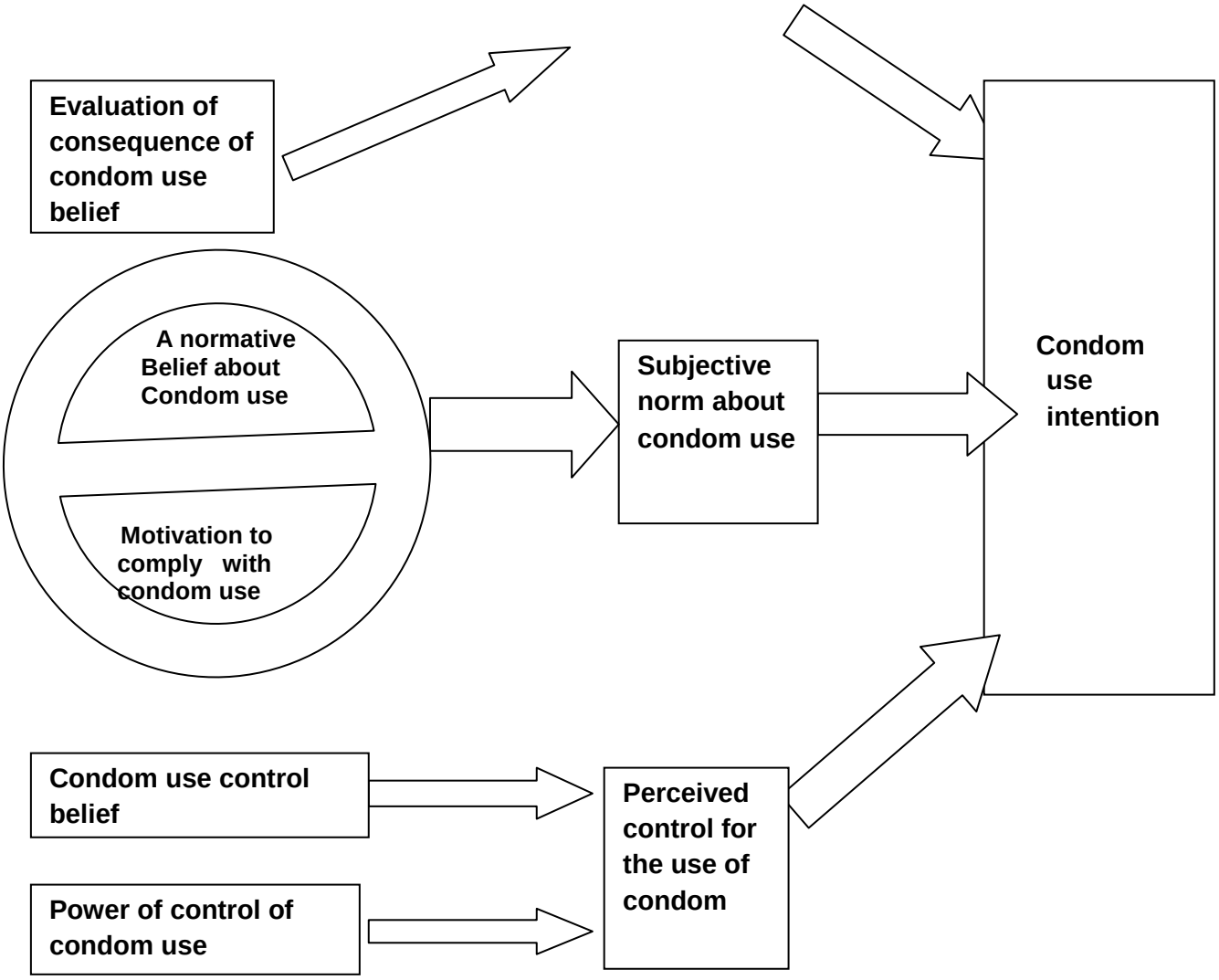
ANNEXES

Annex I- figure 3: Conceptual frame work of the study





Annex II: Information Sheet and consent form

This Information Sheet and Consent Form are prepared for HIV/AIDS patients who are on ART and eligible to participate in this Research Project in North Showa Zone.

Information sheet (English version)

Title of the study: Sexual behavior and determinants of condom use in HIV patients who are on ART in North Showa Zone, 2010.

Name of Principal Investigator: Nigussie Assefa

Name of the Organization: AAU, college of health science, School of Public Health.

Name of the Sponsor: AAU

Introduction

This information sheet is prepared with the aim of determining the sexual behavior and determinants of condom use in HIV patients who are on ART in North Showa Zone Health facility. The research group includes the principal investigator, six trained data collectors, three Supervisors, and one advisor from AAU.

Purpose of the Research Project

The aim of this study is to assess the prevalence rate of consistent condom use, and factors affecting sexual practice and consistent condom use among HIV patients who are on ART. The study shows the gap of consistent condom use utilization in HIV patients who are on ART which are a potential source of HIV infection. Therefore, the results of this study will be used to design appropriate intervention programs to address the low and /or inconsistent condom use among HIV patients who are on ART.

Procedure

The health facilities are providing ART services to HIV patients and you are one of the service customers. Therefore, you are randomly selected to be one of the study participants if you are willing to take part in this study and we kindly invite you to take part in the study. If you are willing to participate, we are so happy and we need you to clearly understand the aim of this study and to sign the consent form. Finally you are kindly requested to give your genuine response during the interviewee.

Benefits, Risk and /or Discomfort

By participating in this research project you may feel some discomfort in wasting your time (a maximum of 30 minutes). However, your participation is definitely important to identify the determinant factors for the low and/or inconsistent condom use by HIV patients who are on ART so as to design appropriate prevention strategy of HIV/AIDS in those who are already living with the virus and taking ART. There is no risk or direct benefit in participating in this research project.

Incentives/Payments for Participating

You will not be provided any incentives or payment to take part in this project.

Confidentiality

The information collected from you will be kept confidential and stored in a file, without your name by assigning a code number to it. And hence no report of the study ever identifies you.

Right to Refusal or Withdraw

You have the full right to refuse from participating in this research. You have also the full right to withdraw from this study at any time you wish.

Person to contact

This research project will be reviewed and approved by the ethical committee of the AAU. If you have any question you can contact below mentioned individuals and you may ask at any time you want.

Name: Nigussie Assefa
Tele: +251_912-142-509
E-mail: nigussiemph@gmail.com.

የመረጃና የስምምነት ውል ቅፅ (Amharic version)

በሰሜን ሸዋ ዞን የኤችኣይቪ መድሃኒት በመከታተል ላይ ያሉትን ሰወች የወሲብ ህይወት እና ኮንዶም አጠቃቀምን መዳሰስ በሚለው የምርምር ፕሮጀክት ላይ ተሳታፊ ለሚሆn& የተዘጋጀ የመረጃና የስምምነት ውል ቅፅ፡፡

የመረጃና ውል ቅፅ (Amharic version)

የምርምሩ/ጥናቱ ርዕስ: በሰሜን ሸዋ ዞን የኤችኣይቪ መድሃኒት በመከታተል ላይ ያሉትን ሰወች የወሲብ ህይወት እና ኮንዶም አጠቃቀምን ይመለከታል

የዋና ተመራማሪው ስም፡ ንጉሴ አሰፋ

የድርጅቱ ስም: በአ.አ. ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ የህብረተሰብ ጤና አጠባበቅ ት/ቤት

ወጪውን የሚሸፍነው አካል፡ በአ.አ. ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ የህብረተሰብ ጤና አጠባበቅ ት/ቤት

መግቢያ

ይህ የመረጃና የስምምነት ውል ቅፅ የተዘጋጀው እርስዎ ተሳታፊ እንዲሆኑ ስለተጋበዙበት በምርምር ቡድኑ የሚካሄደውን ጥናት በተመለከተ የእርስዎን ፈቃደኛነት ለማወቅ ነው፡፡ የምርምር ፕሮጀክቱ ዋና ዓላማ ኤች አይ ቪ ኤድስ የአለም ወረርሽኝ በሆነበት ዘመን የኤችአቪ በሽተኞች በበሽታዉ ስርጭት ላይ ከፍተኛ አስተዋፅዖ አለዉ፡፡ ስለዚህም የኤችአቪ መድሃኒት በመዉሰድ ላይየኤችኣይቪ መድሃኒት በመከታተል ላይ ያሉትን ሰወች የወሲብ ህይወት እና ኮንዶም አጠቃቀምን በተመለከተ የሚያደርጉት ጥንቃቄ ምን ደረጃ ላይ እንዳለ ለማጥናት ነው፡፡ የምርምር ቡድኑ ለዚህ ጥናት አንድ ዋና ተመራማሪ ዘጠኝ የሰለጠኑ መረጃ ሰብሳቢና ሰባት ሱፐርቫይዘር ከሰሜን ሸዋ ዞን ጤን ተቋማት እና ከአ.አ. ዩኒቨርሲቲ ያካተተ ነው፡፡

የጥናት ፕሮጀክቱ የሚካሄድበት ምክንያት

የጥናቱ ዓላማ የኤችአይቪ መድሃኒት በሚወስዱ በሽተኞች ላይ ያለኮንዶም የሚደረግ የግብረስጋ ግንኙነት ከፍተኛ በመሆኑና ይህም ለኤች አይ ቪ ኤድስ ፤ የአባለዘር በሽታ እንዲሁም ያልተፈለገ እርግዝና፣ውርጃ ስለሚያጋልጥ በኮንዶም አጠቃቀም ዙሪያ ያሉ ተጨዳኝ ምክንያቶችን መዳሰስ አስፈላጊ በመሆኑ ነው፡፡ የጥናቱ ግኝት ችግሩን ለመፍታ በተለይም ደግሞ ጥናት በሚካሄድበት ቦታ፣ ትክክለኛ የሆነ የመፍትሄ አቅጣጫ ለመቅረፅ እንደመነሻ መሠረት ያገለግላል፡፡

አተገባብር

ይህ ጥናት የኤችአይቪ መድሃኒት የሚወስዱ በሽተኞችን የሚያካትት ሲሆን እናንተ የተመረጣችሁት በእጣ በመሆኑና በጥናቱ ላይ ይተባበሩናል ብለን ስላመንን ነው፡፡እርስዎ በዚህ ጥናት ለመሳተፍ ፈቃደኛ የሚሆኑ ከሆነ ተሳተፊ በመሆንዎ በጣም

ደስተኞች ስንሆን እርስዎ የጥና~ን ዓላማ በግልፅ እንዲረዱ እና የስምምነት ውሉን እንዲፈ`ሙልን እንፈልጋለን፡፡ በዚህ መሰረትም በመረጃ ሰብሳቢዎቹ የሚሰጠዎትን መጠይቅ በመሙላት እንዲተባበሩን በአክብሮት እንጠይቃለን፡፡

ጥቀም/ ጉዳት/አለመመቸት

እርሰዋ በጥናቱ ተሳታፊ በመሆንዎ ጊዚዎን ሊያባክኑ ይችላሉ፡፡ መጠይቁን ለመሙላት ቢበዛ 30 ደቂቃ ይወስድብዎታል፡፡ቢሆንም እንኳ የኤችአይቪ መድሃኒት የሚወስዱ በሽተኞችን በግብረስጋ ግንኙነት ወቅት እራሳቸውን ለመጠበቅ የሚያደርጉት ጥንቃቄ ምን ደረጃ ላይ እንዳለ ማጥናት አስፈላጊ በመሆኑና የምትሰጡትም መልስ ወደፊት ለሚደረጉ ምርምሮችና የመከላከል ስልት ለመንደፍ ትልቅ አስተዋጾ ስለሚያደርግ ጊዜዎን ሰጥተዉ b^t²bÝN ተገቢና አስፈላጊ ይሆናል::

ጥቅሞች

እርስዎ በዚህ ጥናት ተሳታፊ በመሆንም በቀጥታ ሊያገኙት የሚችሉት ጥቅም ባይኖርም የእርስዎ ተሳትፎ የኤችአይቪ መድሃኒት የሚወስዱ በሽተኞችን ኮንዶም አጠቃቀም እና የወሲብ ባህሪ ምን እንደሚመስል ለመለየት ይጠቅማል፡፡

ጥቅማጥቅም

በዚህ ጥናት ተሳታፊ በመሆንዎ ምንም ዓይነት ማበረታቻ ወይም ክፍያ አይሰጥዎትም፡፡

ምስጢራዊነት

ለዚህ የጥናት ፕሮጀክት የሚሰበሰበው መረጃ የግል ጉዳያችሁን ያካተተ በመሆኑ ማን ምን መልስ እንደሰጠ/ች ምስጥር እንዲሆን ጥንቃቄ ተደርግዎበታል፡፡ ለዚህም ሲባል በመጠይቁ ላይ ስምም ሆነ የመታወቂያ ቁጥር መጻፍ አይፈለግም፡፡

ከጥናቱ ያለመሳተፍ ወይም የማቋረጥ መብት

በዚህ ጥና*ƒ* ያለመሳተፍ መብትዎ ሙሉ በሙሉ የተጠበቀ ነዉ፡፡ ለጥያቄዎቹ በሙሉም ሆነ በከፊል መልስ አለመስጠት ይችላሉ፡፡ እንዲሁም በማንኛውም በፈለጉት ሰዓት ማንኛውንም መብትዎን ሳያጡ የማቋረጥ ሙሉ መብት አለዎት፡፡

ማግኘት የሚችሏቸው ሰዎች

ይህ የምርምር ፕሮጀክት በአ.አ. ዩኒቨርሲቲ የምርምር ስነ ምግባር ኮሚቴ ተከልሶ የሚፀድቅ ይሆናል፡፡ የበለጠ መረጃ ማግኘት የሚፈልጉ ከሆነ ኮሚቴውን በሚከተለው

አድራሻ ማግኘት ይችላሉ፡፡ የትኛውም ዓይነት ጥያቄ ካለዎት ከዚህ ቀጥሎ የተጠቀሱትን ግለሰቦች ማግኘትና በማንኛውም ጊዜ መጠይቅ ይችላሉ፡፡

ንጉሴ አሰፋ
ስልክ፡- +251_912_14_25_09
ኢ_ሜል: nigussiemph@gmail.com.

Consent form

Dear study participants. I am Nigussie Assefa, final year MPH student from AAU, College of Health Sciences, and School of Public Health to study the sexual behavior and determinants of condom use in HIV patients who are on ART in North Showa health facility. The research is under the supervision of AAU. I am interested to do this research because it is important to assess the sexual behavior of HIV patients who are on ART in the pandemicities of the disease and you are randomly selected to the study participant.

There are also other clients who are selected like you, so the information you are requested to provide is very important for further study and to design appropriate prevention strategy of HIV/AIDS.

The study questionnaire will take a maximum of 30 minutes to fill and it involves various intimate and private life questions and hence you are not requested to write your name so that no reports of the study will ever identify you. We would like to assure you that confidentiality will be kept throughout. Any way you have full right to participate or to discontinue at any time or not to participate in the study at all.

Are you willing to participate in the study? Yes/__/ No/__/

If yes please go to the next page

Thank you**!**

If you have any question related to the questionnaire, you can contact me at any time through

Tele: +251-912-142-509

E-mail – nigussiemph@gmail.com.

Respondent's name---------x----------signature----------

Data collectors name----------signature----------

የስምምነት ፎርም

እንደምን አደራችሁ/ዋላችሁ እኔ ንጉሴ አሰፋ በአዲስ አበባ ዩንቨርሲቲ የህብረተሰብ ጤና ትምህርት ቤት የማስተርስ ድግሪ የመጨረሻ አመት ተማሪ ስሆን ይህ የምርምር ክፍል ወደዚህ የመጣበትቨምክንያት ኤች አይ ቪ ኤድስ የአለም ወረርስኝ በሆነበት ዘመን ኤች አይ ቪ ኤድስ መድሃኒት በመውሰድ ላይ ያሉ ሰወች በግብረስጋ ግንኙነት ወቅት እራሳቸውን እና ሌላዉን ለመጠበቅ

የሚያደርጉት ጥንቃቄ ምን ደረጃ ላይ እንዳለ ማጥናት አስፈላጊ በመሆኑና የምትሰጡትም መልስ ወደፊት ለሚደረጉ ምርምሮችና የመከላከል ስልት ለመንደፍ ትልቅ አስተዋጾ ስለሚያደርግ ነው።

እናንተ አጠቃላይ የተመረጣችሁት በእጣ ሲሆን በ30 ደቂቃ ውስጥ የምትመልሱት መጠይቅ የግል ጉዳያችሁን ያካተተ በመሆኑ ማን ምን መልስ እንደሰጠ/ች ምስጥር እንዲሆን ጥንቃቄ ተደርግዎበታል።ለዚህም ሲባል በመጠይቁ ላይ ስምም ሆነ የመታወቂያ ቁጥር መጻፍ አይፈለግም።በጥናቱ መሳተፍና ለሁሉም መጠይቆች መልስ መስጠት ለውጤቱ መስመር እጅግ አስፈላጊ ቢሆንም ለመጨረስም ሆነ በመካከል ለማቋረጥ ከአንተ/ች እምነት ውጭ ግዳጅም ሆነ ጫና የለበትም።

መጠይቁን ለመሙላት ፈቃደኛ ነህ/ሽ? 1 አዎ 2 አይደለሁም

ፈቃደኛ ከሆንክህ/ሽ ወደሚቀጥለው ገፅ በመሄድ መልስ እንድትሰጥ/ጭ ትጠየቃለህ/ቂያለሽ?

አናመሰግናለን።

መጠይቁን በተመለከተ ማንኛውም ጥያቄ ቢኖራችሁ በሚከተለው አድራሳ ማግኘት ትችላላችሁ።

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የተጠያቂው ስም_____x_____ፊርማ_____

የጠያቂ ስም_____ፊርማ_____

Annex III: Questionnaire

On this questionnaire there is no need to write the name or the addresses of the respondent. Therefore, there is no means to identify who filled the questionnaire. Though some of the questions touch personal life and secret, we kindly request you to give the true and right answer.

Questionnaire: English Version

1. **Part I. socio-demographic characteristics**

Number	Questions	Response
101	**sex**	**1. Male** **2. Female**
102	**Age in complete years**	**_____**
103	**Educational status**	**1. Unable to write and read** **2. Write and read** **3. Completed grade _____**
104	**Religion**	**1. Orthodox** **2. Muslim** **3. Protestant** **4. Catholic** **5. Other_____**
105	**Ethnicity**	**1. Amhara 3. Tigre** **2. Oromo 4. Others_____**
106	**What is your current occupation?**	**1. Government employee** **2. Private employee** **3. House wife** **4. Daily laborer** **5. Housemaid/servant** **6. Merchant** **7. Commercial sex worker** **8. Others(specify)_____**
108	**What is your average monthly income?**	**1. _____Eth. Birr** **2. No income** **3. Don't know** **4. Other(specify)_____**
107	**What is your current Marital status?**	**1. Single** **2. Married** **3. Divorced** **4. Widowed**

Part II: sexual behavior before tested positive, time of tested and of started for ART

Number	Questions	Response/coding categories
201	Where were you tested when you first discovered you were HIV positive?	1. In this health facility 2. Others(specify)_____
202	By which HIV counseling and testing approach was you tested?	1. VCT 2. PIHCT

		3. Other(specify)_____
203	How long is it since you tested positive for HIV/AIDS?	_____(months, years)
204	How long is it since you have started ART?	_____(months, Years)
205	What was your marital status by the time you knew your HIV status?	1. Married 2. Single 3. Divorced 4. Widowed
206	How many sexual partner/s did you have before you tested posting positives for HIV?	1. One sexual partner 2. Two sexual partner 3. Three or more sexual partner
207	Did you use condom before you know your HIV status?	1. Yes 2. No
208	If your answer is **yes for Q 207,** how frequently did you use condom?	1. Always 2. Almost always 3. About half of the time 4. Not very often 5. Almost never

Part III: Questions assessing sexual behavior of HIV patients currently on ART

Number	**Questions**	**Response/coding categories**
301	What is your current marital status?	1. single 4. Widowed 2. Married 3. Divorced
302	With how many partners did you have sex in the last three months?	1. One 4. Four 2. Two 5. Five 3. Three 6. More than 5
303	If your answer is **1 for Q 302**, identify the kind of partner you have had steady wife, husband, girl friend/boy friend, causal- not steady partner/s	1. Primary/steady partner/s 2. Causal partner/s
304	If your answer is **2 or more for Q 302,** identify the kind of partners whom they are?	1. Steady partner/s 2. Causal partner/s
305	How long have you stayed with your current regular partner?(for those who have steady partner)	_____(months, years)
306	What has your sexual desire seems after you started ART?	1. Desired is improved compared to before 2. Desire is normal as before 3. Desire is decreased as compared to

		before	
307	Did you use condom in the last three months?	1. Yes 2. No	If 2, skip to Q 309
308	If **yes to Q 307,** how often you used condom?	1. Always 2. Almost always(more than half) 3. Sometimes(half) 4. Almost never/never	If 1, skip to Q 312
309	If your answer is **either of Q 2,3 or 4 for Q 308, and 2 for Q 307** with whom you didn't use condom?(more than one answer is possible)	1. Causal partner 2. Steady partner 3. In both types of partner	
310	If your answer is **either of 2, 3, 4 or 5 for Q 308 and 2 for Q 307** what were the reasons for not using condom always?(multiple response is possible)	1. My partner/s did not want to use a condom 2. My partner/s already had HIV 3. Sex doesn't feel the same with a condom 4. Didn't have a condom available 5. I fear to ask my partner to use condom 6. Thought my partner didn't have STI 7. Was drunk and didn't think of condom use 8. Wanted to have a child(own/partner) 9. Did not know condoms could reduce the risk of re-infection 10. Condom is against my religion 11. I didn't use because I am infected 12. Other(specify)_____	
311	Have you used a condom at your last sexual encounter?	1. Yes 2. No	
312	Did you discuss about using condoms and safe sex with your partner?	1. Yes 2. No 3. Partly	
313	What is/are the HIV serostatus of the person/s with whom you had sex in the last 3 months?**(interviewer will check for the Q 303 response)**	**For one partner** 1. Negative/s 2. Positive 3. Don't know (more than one answer is possible)	**For more than one partner/s** **With condom** 1.Negative/s 2.Positive 3.Don't known (More **Without condom** 1. Negative/s 2. Positive 3. Don't known More than

			than 1 answer is possible)	1 answer is possible)
314	Have you disclosed your sero-status to your partner?	1. Yes 2. No 3. Partly		

Part IV: medical and psychosocial related questions

Medical related and psychosocial related questions						
400.1	There is reduced concern to practice safe sex because of ART	1. Yes 2. No				
400.2	Is there any missing of tablets of medication in the last three months	1. Yes 2. No				
400.3	Respondents HIV/AIDS status at the time of data collection? (data collector will assess any sign and symptoms by clinical staging and other related disease conditions reported by the patients)	1. Symptomatic 2. Asymptomatic				
400.4	During the last 3 months have you ever drunk alcohol?	1. Yes 2. No				
400.5	If your answer for **Q 400.4 is yes,** how many times per week have you consumed in the last week	1. Once per week 2. Twice per week 3. 3 times per week 4. 4 times per week 5. 5 times per week 6. 6 times per week 7. 7 times per week 8. Above 7 times per week				
400.6	Do you have any substance addiction?	1. Yes 2. No				
400.7	With Which of the following substances you are addicted or using if your answer is **yes for Q 400.6(multiple answer is possible).**	1= once or less per week 2= twice per week 3= times per week 4= 4 times per week 5= above 4 times per week				
400.7.1.	Khat	1	2	3	4	5
400.7.2.	Smoking	1	2	3	4	5
400.7.3	Hashish	1	2	3	4	5
400.7.4.	Cocaine	1	2	3	4	5

400.7.5	Other (specify)	1	2	3	4	5

Part V: Questions related to constructs of TPB

The following questions concerns your beliefs about the likely outcome of using condom and the evaluation of the outcomes; therefore, write one of the number provided according to your degree of agreement to the statement

	"I feel that …...in the coming two months"	**Strongly agree**	**agree**	**Neutral**	**disagree**	**Strongly disagree**
		1	**2**	**3**	**4**	**5**
501	the chance of getting infected with another strain of HIV/AIDS will decrease if I used condom consistently	/_____/				
502	Consistent condom use help me not to transmit the Virus to my partner/s	/_____/				
503	Condom prevents me from getting infected with a sexually transmitted disease	/_____/				
504	Condom helps to have a better outcome of my treatment being it avoids re infection					

Outcome evaluation of using condom in the coming two months

	I evaluated using condom consistently in the coming two months by stating my expression of the belief statement	**Extremely desirable**	**Desirable**	**neutral**	**Undesirable**	**Extremely undesirable**
		1	***2***	***3***	***4***	***5***
505	Decreasing the chance of getting infected with another strain of HIV is …					
506	Not to transmit the HIV Virus to their partner is…					
507	Protecting me from getting infected with STD is…					
508	Resulting a better outcome of my treatment being it avoids re-infection is…					

The following questions ask your belief about the normative expectation of others and your motivation to comply with their expectation						
The following individual would approve my using condom consistently during sex in the next two months		***Strongly agree***	***agree***	***neutral***	***disagree***	***Strongly disagree***
		1	***2***	***3***	***4***	***5***
509	My spouse/sexual partner (s)	/_____/				
510	My close friend (s)	/_____/				
511	My fellow teacher (s)	/_____/				
512	My relative(s)	/_____/				
513	My religious leader (s)	/_____/				

'I would like to do what ……'		***Strongly agree***	***agree***	***neutral***	***disagree***	***Strongly disagree***
		1	***2***	***3***	***4***	***5***
514	My sexual partner(s) think (s) that I should do.	/_____/				
515	my close friend (s) think (s) that I should do	/_____/				
516	My fellow teacher (s) think (s) that I should do	/_____/				
517	My relative(s) think (s) that I should do	/_____/				
518	My religious leader (s) think (s) that I should do'	/_____/				

The following questions assess your belief about the presence of factors that may facilitate or impede the use of condom consistently and the perceived power of these factors.					
It will be difficult for me to use condom consistently in the	**Very likely**	**likely**	**neutral**	**Somewhat unlikely**	**Not likely at all**

coming 2 months		**1**	**2**	**3**	**4**	**5**
519	Because I fear Condom is difficult for me to use.	/_____/				
520	Because I fear condoms reduce my sexual sensation	/_____/				
521	Because I think condoms are expensive	/_____/				
522	Because I fear condom can slip or break	/_____/				
'I will use condom consistently in the coming 2 months even if ….		**Completely certain**	**certain**	**neutral**	**uncertain**	**Completely uncertain**
		1	**2**	**3**	**4**	**5**
523	I fear it is difficult for me to use	**/_____/**				
524	I fear condom reduce my sexual pleasure	**/_____/**				
525	Condoms are expensive	**/_____/**				
526	I fear condom can slip or break	**/_____/**				

The following questions assesses about your intention to use condom consistently in the coming 2 months.						
In the coming two months….		**Very likely**	**likely**	**neutral**	**Somewhat unlikely**	**Not likely at all**
		1	**2**	**3**	**4**	**5**
527	How likely you intend to use condom consistently	/_____/				
528	How likely you look for and request consistent condom use	/_____/				
529	How likely you accept consistent condom use if you visit condom rendering centers	/_____/				

Thank you very much for your participation in the study!

የአማርኛ መጠይቅ

መጠይቁ ላይ ስምም ሆነ የመታወቂያ ቁጥር መጻፍ አይፈለግም። ስለዚህ ምንም እንኳ የምትሞሉት መጠይቅ የግል ጉዳያችሁን ያካተተ ቢሆንም ማን ምን መልስ እንደሰጠ/ች ምስጥር ነዉ። በጥናቱ መሳተፍና ለሁሉም መጠይቆች መልስ መስጠት ለውጤቱ መስመር እጅግ አስፈላጊ ቢሆንም ለመጨረስም ሆነ በመካከል ለማቋረጥ ግዳጅም ሆነ ጫና የለብዎትም።

ክፍል አንድ፡ አጠቃላይ መረጃ

ተቁ	መጥይቅ	አማራጭ
101	የተያቂው ፆታ	1 ወንድ 2 ሴት
102	እድሜህ/ሽ ስንት ነው?	/_____/
103	የትምህርት ደረጃወ ስንት ነዉ?	1. ማንበብ እና መፃፍ እማልችል 2. መፃፍ ና ማንበብ የሚችል 3. የትምህርት ደረጃ በክፍል.....
104	የምትከተለው ሃይማኖት ምንድን ነው?	1 ኦርቶዶክስ 4. ካቶሊክ 2 እስላም 5. ሌሎቹ ሀይማኖቶች 3 ፕሮቴስታን
105	ብሄርህ/ሽ ምንድን ነው?	1 አማራ 3. ትግሬ 2 ኦሮሞ 4. ሌሎች ብሄሮች
106	ስራህ/ሽ ምንድን ነው?	1 የመንግስት ስራ 5. የቤት ሰራተኛ 2 የግል ስራ 6. ነጋዴ 3 የቤት እመቤት 7. የሆቴል ቤት ማታ ስራ 4 የቀን ሰራተኛ 8. ሌሎች.....
107	የወር ገቢህ ስንት ነዉ?	1. .....ኢት. ብር 2. ገቢ የለኝም 3. ኣላቀዉም 4. ሌሎች.....
108	የጋብቻ ሁኔ	1. ያላገባ 4. ባሏ/ሚስቱ የሞተባት/ችበት 2. ያገባ 3. የተፋታ/ች

ክፍል ሁለት፡ የኤች አ ይቪ ታካሚወች ኤች አ ይቪ በደማቸዉ ዉስጥ ከመኘቱ በፊት ወስባዊ ሂወታቸዉ ምን እንደሚመስል እና የኤች አ ይቪ ህክምና አጀማመርና ጊዜን በተመለከተ

ተቁ	መጥይቅ	አማራጭ
201	ለመጀመሪያ ጊዜ ኤች አይ ቪ ደምወት ዉስጥ ሲገኝ የት ተመረመሩ	1. በዚሁ ጤና ተቋም 2. ሌላ(ይጠቀስ)……
202	በየትኛዉ የምክርና ምርመራ አገልግሎት ተመረመሩ	1. VCT 2. PICHT 3. ሌላ(ይጠቀስ)……
203	ኤች አይ ቪ በደምወት ዉስጥ እንዳለ ካወቁ ስንት ጊዜ ሆነወት	……..(በወር፣ ባመት)
203	የኤች አይ ቪ መዳኒት ከጀመሩ ስንት ጊዜ ሆነወት	……..(በወር፣ ባመት)
205	ኤች አ ይቪ ፖዝቲቭ መሆነወን ሲያዉቁ የጋብቻ ሁኔታወ እንዴት ነበር	1. ያላገባ 4. ባሏ/ሚስቱ የሞተባት/ችበት 2. ያገባ 3. የተፋታ/ች
206	ኤች አ ይቪ ፖዝቲቭ መሆነወን ሳያዉቁ በፊት ምን ያህል የወሲብ ጓደኛ ነበረወት	1. አንድ 2. ሁለት 3. ሥስት እና ከዚያ በላይ
207	ኤች አ ይቪ ፖዝቲቭ መሆነወን ሳያዉቁ በፊት ኮንዶም ይጠቀሙ ነበር ወይ	1. አዎ 2. አልጠቀምም
208	ለጥያቄ 207 አዎ ከሆነ ኤች አይ ቪ ደመዎት ዉስጥ ሳይገኝ በፊት ኮንዶም ምን ያህል ጊዜ ይጠቀሙ ነበር	1. ሁልጊዜ 2. አብዛኛዉን ጊዜ(ከግማሽ በላይ) 3. አልፎ አልፎ(ግማሽ) 4. ጥቂት ጊዜ 5. በጣም ጥቂት ጊዜ

ክፍል ሥስት፡ የኤች አይ ቪ/ኤድስ ክትትል የሚያደርጉት የወሲብ ህይወታቸዉን የሚዳስስ መጠይቆች

ተቁ	መጥይቅ	አማራጭ
301	ባሁኑ ጊዜ የጋብቻ ሁኔታ ምንድን ነዉ	1. ያላገባ 4. ባሏ/ሚስቱ የሞተባት/ችበት 2. ያገባ 3. የተፋታ/ች
302	ባለፉት 3 ወራት ዉስጥ ከምን ያህል ሰወች ጋር የግብረ ስጋ ግንኙነት ፈፅመዉ ያዉቃሉ	1. አንድ 4. አራት 2. ሁለት 5. አምስት 3. ሰወስት 6. ከአምስት በላይ
303	ለጥያቄ 302 አንድ ከሆነ መልሰዎ ከምን አይነት ጓደኛ ጋር ነዉ **መደበኛ-** ባል፣ሚስት፣ አብሮ የቆዩ የሴት/የወንድ ጓደኛ **አጋጣሚ-** ከመደበኛ ጓደኛ ዉጭ የተፈጸመ ወሲባዊ ግንኙነት	1. መደበኛ ጓደኛ 2. መደበኛ ያልሆነ ጓደኛ
304	ለጥያቄ 302 መልሰዎ ሁለት እና ከዛ በላየ	1. መደበኛ የወሲብ ተጓዳኝ

	ከሆነ የተጓደኝሎ ዓይነትን ይግለፁ	2. ድንገተኛየወሲብ ተጓዳኝ	
305	ካሁኑ መደበኛ የወሲብ ተጓደኝዎት ጋር ምን ያህል ጊዜ ቆይተዋል	.....(ወር፣ አመት)	
306	የጸረ ኤች አይ ቪ መድሃኒት መጠቀም ከጀመሩ ወዲህ የወሲብ ፍላጎተዎ እንዴት ነዉ	1. የወሲብ ፍላጎት ከበፊቱ ጨምሯል 2. የወሲብ ፍላጎት ከበፊቱ ጋር አንድ ነዉ 3. የወሲብ ፍላጎት ከበፊቱ ቀንሷል	
307	ባለፉት 3 ወራት በነበረዎት ግብረ ስጋ ግንኙነት ዉስጥ ኮንዶም ይጠቀሙ ነበር	1. አዎ 2. አይደለም	2 ከሆነ ወደጥያቄ 309
308	ለጥያቄ 307 መልሰዎ 1 ከሆነ አጠቃቀመዎት እንዴት ነበር	1. ሁልጊዜ 2. አብዛኛዉን ጊዜ(ከግማሽ በላይ) 3. አልፎ አልፎ(ግማሽ) 4. ጥቂት ጊዜ 5. በጣም ጥቂት ጊዜ	1 ከሆነ ወደ ጥያቄ 312
309	ለጥያቄ 308 መልሰዎ 2፣3፣4 ወይም ከሆነ ከየትኛዉ የወሲብ ተጓዳኝ ጋር ኮንዶም አልተጠቀሙም (ከአንድ ጓደኛ በላይ ላለዉ ከ 1 በላይ መልስ ይቻላል)	1. ድንገተኛ የወሲብ ተጓዳኝ ጋር 2. መደበኛ የወሲብ ተጓዳኝ ጋር 3. ሁለቱም ጋር	
310	ኮንዶም ያልተጠቀሙበት ምክንያት /ቶች ምንድን ነዉ/ናቸዉ	1. ተጓዳኝ ኮንዶም መጠቀም ስላልፈለገ/ች 2. ተጓዳኝ ፖዝቲቭ ስለሆነች 3. ኮንዶም መጠቀም የወሲብ ስሜትን ስለሚቀይር 4. ኮንዶም ስላላገኘን 5. ተጓዳኝን ኮንዶም እንድንጠቀም ለመጠየቅ በመፍራት 6. ተጓዳኝ የኣባላዘር በሽታ የለዉም ብየ ስላሰብኩ 7. ጠጥተን ስለነበርን ኮንዶም ለመጠቀም ኣላሰብነም 8. ልጅ እንዲኖረን በመፈለግ 9. ከዚህ ቡኋላ ኮንዶም ኤች አይ ቪን በይበልጥ እንደሚከላከል ስለማላዉቅ 10. ኮነዶም በሃይማኖት ተቀባይነት ስለለዉ 11. አንዱ ስለተያዝኩኝ ኮነዶም አልተጠቀምኩም 12. ሌላ ካለ ይጠቀስ.....	
311	በመጨረሻ የወሲብ ግንኙነተዎ ጊዜ ኮንዶም ተጠቅመዋል ወይ	1. አዎ 2. አይደለም	
312	ስለ ኮንዶም እና ጥንቃቄ ስለተሞላበት ወሲብ ከወሲብ ጓደኛዉ ጋር ይወያያሉ ወይ	1. አዎ 2. አንወያይም 3. በከፊል	
313	በባለፉት 3 ወራት ዉስጥ የወሲብ ግንኙነት አብረዉ የፈጸሙበትን ሰዉ ኤች አይ ቪ ሁኔታ ምንድን ነዉ	ለአንድ ተጓዳኝ ላላቸዉ	**ከአንድ በላይ** ተጓዳኝ ያላቸዉ
		1. ነጌቲቪ 2. ፖዝቲቭ 3. አላዉቅም	**ያለኮንዶም** / **በኮንዶም**
			1. ነጌቲቪ 2. ፖዝቲቭ 3. አላዉቅም (ከ 2 መልስ በላይ ይቻላላ) / 1. ነጌቲቪ 2. ፖዝቲቭ 3. አላዉቅም (ከ 2 መልስ በላይ ይቻላላ)
314	ቫይረሱ በደመዎት ዉስጥ መኖሩን ለወሲብ ተጓዳኝዎ ገልጸዉ ነበር	1. አዎ 2. አልገለፅኩም 3. በከፊል	

ክፍል አራት፡ ለሽተኞች ጥንቃቄ የተሞላበት ወሲባዊ ግንኙነት ላይ ያላቸዉ አመለካከት እና የጤና ሁኔታን የተመለከተ መጠይቅ

ጥንቃቄ የተሞላበት ወሲባዊ ግንኙነት ላይ ያላቸዉ አመለካከት እና የጤና ሁኔታ						
400.1	በፀረ ኤች አይ ቪ መድሃኒት ምክንያት ጥንቃቄ የተሞላበት ወሲብ ቀንሷል	1. አዎ ቀንሷል 2. አልቀነሰም				
400.2	ባለፉት 3 ወራት መድሃኒተዎን እረስተዉ ሳየወስዱ የቀሩበት ቀን አለዎይ	1. አዎ 2. የለም				
400.3	በመረጃ ሰብሳቢዉ የሚሰራ(የሚታይ ማልክት እና ሌሎች ተዛማጅ በሽታወች አሉ ወይ)	1. አወ ምልክት አሉ 2. ምልክት የለም				
400.4	ባለፉት 3 ወራት ጠጥተህ ታዉቃለህ ወይ	1. አወ 2. አልጠጣሁም				
400.5	ለጥያቄ 400.4 መልሰዎ አወ ከሆነ በባለፈዉ ሳምንት ምን ያህል ጊዜ ጠጣህ	1. 1 ጊዜ በሳምንት 2. 2 ጊዜ በሳምንት 3. 3 ጊዜ በሳምንት 4. 4 ጊዜ በሳምንት 5. 5 ጊዜ በሳምንት 6. 6 ጊዜ በሳምንት 7. 7 ጊዜ በሳምንት 8. ከ 7 በላይ ጊዜ በሳምንት				
400.6	ሌላ ሱስ አለዎት ወይ	1. አዎ 2. የለኝም				
400.7	**ለጥያቄ 400.6 መልሰዎ 1 ከሆነ የትኛዉ ሱስ ነዉ ያለበዎት/ዕፀ ይጠቀማሉ**	1. 1 ወይም ከዚያ በታች በሳምንት 2. 2 ጊዜ በሳምንት 3. 3 ጊዜ በሳምንት 4. 4 ጊዜ በሳምንት 5. ከ 4 ጊዜ በሳምንትበላይ				
400.7.1.	ጫት	1	2	3	4	5
400.7.2.	ሲጋራ	1	2	3	4	5
400.7.3.	ሃሺሽ	1	2	3	4	5
400.7.4.	ኮኪን	1	2	3	4	5
400.7.5.	ሌላ ካለ ይገለፅ.....	1	2	3	4	5

ክፍል አምስት፡ ቲወሪ ኦፍ ፕላንድ ቢሄቨርን በተመለከተ የሚዳስሱ ጥያቄዎች

ኮንዶም በትክክል መጠቀም ሊኖረዉ የሚችለዉን ፋይዳ ለማወቅ የተሰጡ ጥያቄዎች ሲኖሩ እነዚህን መጠይቆች የርሰወን ኮንዶም በትክክል መጠቀም በቀጣዩ 2 ወራት ዉስጥ ለማድረግ እና ላለማደርግ ያለወትን ፍቃደኛነት ለማወቅ ይረዳል					
በሚቀጥሉት 2 ወራት ኮንዶም በትክክል ብጠቀም ለሚከተሉት ይጠቅመኛል ብየ አስባለሁ	ከልቤ አስማማለሁ	አስማማለሁ	ኣርግጠኛ አይደለሁም	አላስማማም	ፈጽሞ አላስማማም

		1	2	3	4	5
501	ኮንዶም ከተጠቀምኩ በሌላ አይነት ኤች አይ ቪ ቫይረስ የመያዝ እድለዎ አነስተኛ ነዉ	/_____/				
502	ሁልጊዜ በትክክል ኮንዶም የምጠቀም ከሆነ ቫይረሱን ወደሌ ሰዉ(ወደ ወሲብ አጋሬ) እንዳላስተላለፍ ይረዳኛል	/_____/				
503	ኮንዶም ከተጠቀምኩ በአባላዘር በሽታ እንዳልያዝ ይረዳኛል	/_____/				
504	ኮንዶም መተቀሜ የምወስደዉን የፀረ ኤች አይ ቪ መድሃኒት ዉጤት ጠሩ ያደርገዋል	/_____/				

በቀጣዩ 2 ወራት በግብረ ስጋ ግንኙነት ጊዜ ኮንዶም በመጠቀመዉ የሚከተሉትን ጥቅም ወይም ጉዳት እንዴት ያዩታል		ከልቤ እስማማለሁ	እስማማለሁ	እርግጠኛ አይደለሁም	አልስማማም	ፈጽሞ አልስማማም
		1	2	3	4	5
505	በሌላ አይነት ኤች አይ ቪ ቫይረስ የመያዝ እድለዎ ከመቀነስ ጥቅም አንጻር	/_____/				
506	ቫይረሱን ወደሌ ሰዉ(ወደ ወሲብ አጋሬ) እንዳላስተላለፍ ከማድረግ ጥቅም አንጻር	/_____/				
507	በአባላዘር በሽታ እንዳልያዝ ከማድረግ ጥቅም አንጻር	/_____/				
508	የምወስደዉን የፀረ ኤች አይ ቪ መድሃኒት ዉጤት ጥሩ ከማድረግ ጥቅም አንጻር	/_____/				

ለርሰዎ ቅርብ የሆኑ ሰወች እንዲፈጽሙት ከሚጠብቁት ነገሮች እና የማበረታቻ ሓሳብ ናቸዉ ተብለዉ የሚታሰቡ መጠየቆችን ይመለከታል						
የሚከተሉት ሰዎች በግብረስጋ ግንኙነት ጊዜ ኮንዶም መጠቀም እንዳለብዎ ያምናሉ		ከልቤ እስማማለሁ	እስማማለሁ	እርግጠኛ አይደለሁም	አልስማማም	ፈጽሞ አልስማማም
		1	2	3	4	5
509	የፍቅር/የወሲብ ጓደኛየ	/_____/				
510	የቅርብ ጓደኛየ	/_____/				
511	አስተማሪየ/ዎቼ	/_____/				
512	ቤተሰቤ/ቦቼ	/_____/				
513	የሃይማኖት አባቴ/ቶቼ	/_____/				

ማድረግ የሚፈልጉት……..		ክልቤ አስማማለሁ	አስማማለሁ	እርግጠኛ አይደለሁም	አልስማማም	ፈጽሞ አልስማማም
		1	2	3	4	5
514	የፍቅር/የወሲብ ጓደኛየ ይጋራኛል/ትጋራኛለች ብለዉ የሚያምኑትን ነዉ	/_____/				
515	የቅርብ ጓደኛየ ይጋራኛል/ትጋራኛለች ብለዉ የሚያምኑትን ነዉ	/_____/				
516	አስተማሪየ/ዎቼ ይጋራኛል/ትጋራኛለች/ይጋሩኛል ብለዉ የሚያምኑትን ነዉ	/_____/				
517	ቤተሰቤ/ቦቼ ይጋሩኛል ብለዉ የሚያምኑትን ነዉ	/_____/				
518	የሃይማኖት አባቴ/ቶቼ ይጋሩኛል ብለዉ የሚያምኑትን ነዉ	/_____/				

ኮንዶም በትክክል መጠቀመዉን ሊያበረታቱ ወይም እንቅፋት ሊሆኑ ይችላሉ ተብለዉ የሚታሰቡ መጠይቆች						
በሚቀጥሉት 2 ወራት ኮንዶም በትክክል መጠቀመዉን መወሰኑ ያስቸግረወታል		ክልቤ አስማማለሁ	አስማማለሁ	እርግጠኛ አይደለሁም	አልስማማም	ፈጽሞ አልስማማም
		1	2	3	4	5
519	ምክንቱም ኮንዶም አጠቃቅም ይከብደኛል ብለዉ ስለሚፈሩ	/_____/				
520	ምክንቱም ኮንዶም መጠቀም በወሲብ የሚገኘዉን እርካታ ይቀንሳል ብየስለማስብ	/_____/				
521	ምክንቱም ኮንዶም ዉድ ነዉ ብየ ስለማስብ	/_____/				
522	ምክንቱም ኮንዶም ይወልቃል/ይቀደዳል ብየ ስለምፈራ	/_____/				

	ለመጭዉ 2 ወራት ኮንዶም በትክክል መጠቀመዉን ምን ያህል እርግጠኛ ነወት ምንም እንኳ...	ከልቤ እስማማለሁ	እስማማለሁ	እርግጠኛ አይደለሁም	አልስማማም	ፈጽሞ አልስማማም
		1	2	3	4	5
523	ኮንዶም አጠቃቀሙ ይከብደኛል ብልዉ ቢፈሩ	/_____/				
524	ኮንዶም የወሲብ እርካታን ይከንሳል ብለዉ ቢያስቡ	/_____/				
525	ኮንዶም ዉድ ቢሆንም	/_____/				
526	ኮንዶም ይወልቃል/ይቀደዳል ብለዉ ቢፈሩ	/_____/				

እርሰወ ለመጭዉ 2 ወራት ኮንዶም በትክክል የመጠቀመወን ፍላጎት ሊያሳዩ የሚችሉ ጥያቄወች ናቸዉ						
በመጭወቹ 2 ወራት ዉስጥ ኮንዶም ሁልጊዜ እና በትክክል ለመጠቀም...		በጣም አስባለሁ	አስባለሁ	እርግጠኛ አይደለሁም	አላስብም	ፈጽሞ አላስብም
		1	2	3	4	5
527	ምን ያህል ታስባለህ/ታስቢያለሽ(ታቅዳለህ/ታቅጃለሽ)	/_____/				
528	ኮንዶም ያለበት ጤና ተቋም ላይ ለመጠቀም ምንያህል ያስባሉ	/_____/				
529	ኮንዶም የሚግኝበት እና ስለ ኮንዶም የምክር አገልግሎት ይሚሰጥበት ቦታ ተገኝተዉ ኮንዶም እንድትጠቀሙ ብትጠየቁ የአገልግሎቱ ተጠቃሚ ለመሆን ምን ያህል ዝግጁ ነኝ ብለዉ ያስባሉ	/_____/				

ለተሳትፎዎ ከልብ እናመሰግናለን!

DECLARATION

I, the under signed, declared that this thesis is my original work, and has not been presented for a degree in any other University and that all sources of material used for this thesis and all people and institution that gave support for this have been duly acknowledge.

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Place: Addis Ababa

Date of submission: May 9, 2011

This Thesis work has been submitted with my approval as University Advisor

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