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St. Paul's Hospital Millennium Medical College

RISKY SEXUAL BEHAVIOR AND ASSOCIATED FACTORS AMONG YOUTHS IN ASSOSA SECONDARY AND PREPARATORY SCHOOL

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Risky Sexual Behavior and Associated Factors Among Youths in Assosa Secondary and Preparatory School

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ABSTRACT

Background: Adolescence is a period of transition from childhood to adulthood. World Health Organization defines youth as person between 15 and 24 years of age. This is a time of transition from childhood to adulthood where new behaviors are more easily learned than when in adulthood.

Objective: The main aim of this study was to assess risky sexual behavior and associated factors among Assosa general secondary and college preparatory students.

Methods: The source population for this study were all school youths in Assosa 2^o and preparatory school attending their high school (secondary [9-10] and preparatory [11-12]) level education by the year 2010 E.C. Institutional based cross-sectional study was conducted. Systematic random sampling technique was used to select a sample of 321 participants. A structured self-administered questionnaire was used to collect data. Collected data was entered and analyzed using SPSS version 20. Crude and adjusted odds ratio with its confidence interval of 95% was used as measure of association and statistical significance was declared at $P < 0.05$.

Results: Out of the study subjects; 80 (24.9%) respondents were sexually active. Among the sexually active students: 18(22.5%) reported inconsistent use of condom, 12(15%) reported sexual contact with commercial sex workers and 56 (70%) reported having more than one sexual partner. 79 (24.6%) of the students had risky sexual behavior. Only 43(13.4%) reported high chance of acquiring Human Immune Virus and Sexual Transmitted Infection. Multivariable logistic regression analyses showed that being single AOR=8.5 (CI: 1.901, 8.550), family marital status being divorced, widowed or separated AOR= 2.4 (CI: 1.34, 4.37) and alcohol consumption AOR= 7.139 (CI: 3.816, 13.356) were associated with risky sexual behavior.

Conclusion: This study revealed that risky sexual practice of the study area was relatively high among the respondents.

Recommendation: The school, local health bureau and other stakeholders should work together to address the identified risky behaviors with particular focus on behavior change communication.

ACRONYMS AND ABBREVIATIONS

AOR- Adjusted Odds Ratio
AIDS- Acquired Immune Deficiency Syndrome
ART –Anti Retro Viral Therapy
BGRS- Benishangul Gumuz regional State
COR- Crude Odds Ratio
CSA- Central Statistics Authority
CSW-Commercial Sex Worker
DACA- Drug Administration and Control Authority
EDHS- Ethiopian Demographic and Health Survey
FDRE-Federal Democratic Republic of Ethiopia
FGAE- Family Guidance Association of Ethiopia
FHI- Family Health International
HAPCO- HIV/AIDS Prevention and Control Office
HIV- Human Immunodeficiency Virus
MOH –Ministry Of Health
MSPs- Multiple Sexual Partners
NGOs- Non Governmental Organizations
PMTCT- Prevention of Mother to Child Transmission
SD- Standard Deviation
SPHMMC- St. Paul’s Hospital Millennium Medical College
SPSS- Statistical Package For Social Service
STDs- Sexually Transmitted Diseases
STIs- Sexually Transmitted Infections
UNAIDS- Joint United Nations Programme on HIV/AIDS
UNDP-United Nations Development Programme
UNFPA-United Nations Population Fund
VTC-Voluntary Testing And Counseling
WHO- World Health Organization

LIST OF TABLES AND FIGURES

Table 1: Socio-demographic characteristics.....	13
Table 2: Sexual behavior.....	14
Table 3: Risk perception.....	17
Table 4: Factors associated to risky sexual behavior.....	18
Figure 1: Reasons for initiation of sex among high school youth.....	16
Figure 2: Magnitude of risky sexual behavior among high school youths.....	16

Contents

ACKNOWLEDGEMENTS	I
ABSTRACT.....	II
ACRONYMS AND ABBREVIATIONS	III
LIST OF TABLES AND FIGURES	IV
1. INTRODUCTION	- 1 -
1.1. BACKGROUND AND STATEMENT OF THE PROBLEM	- 1 -
1.2. SIGNIFICANCE OF THE STUDY	- 3 -
1.3. LITERATURE REVIEW.....	- 4 -
2. OBJECTIVE OF THE STUDY	- 7 -
2.1. GENERAL OBJECTIVE	- 7 -
2.2. SPECIFIC OBJECTIVE	- 7 -
3. METHODOLOGY	- 8 -
3.1. STUDY DESIGN.....	- 8 -
3.2. STUDY AREA.....	- 8 -
3.3. STUDY POPULATION	- 8 -
3.4. SAMPLE SIZE.....	- 8 -
3.5. SAMPLING TECHNIQUE.....	- 9 -
3.6. ELIGIBILITY CRITERIA	- 9 -
3.6.1. Inclusion criteria	- 9 -
3.6.2. Exclusion criteria	- 9 -
3.7. STUDY VARIABLES	- 9 -
3.7.1. Independent Variables:	- 9 -
3.7.2. Dependent Variable:	- 10 -
3.8. OPERATIONAL DEFINITIONS.....	- 10 -
3.9. DATA COLLECTION.....	- 10 -
4. DATA ANALYSIS.....	- 10 -
5. ETHICAL CONSIDERATIONS.....	- 11 -
6. RESULT.....	- 12 -
6.1. SOCIO - DEMOGRAPHIC CHARACTERISTICS.....	- 12 -
6.2 SEXUAL BEHAVIOR	- 14 -

6.2.1. Sexual History	- 14 -
6.2.2. Risky Sexual Behavior	- 15 -
6.3. RISK PERCEPTION.....	- 17 -
6.4. FACTORS RELATED TO RISKY SEXUAL BEHAVIOR.....	- 17 -
7. DISCUSSION	- 20 -
8. LIMITATIONS OF THE STUDY	- 23 -
9. CONCLUSIONS AND RECOMMENDATION	- 23 -
10. REFERENCES	- 24 -
11. ANNEX 1.....	- 27 -

1. INTRODUCTION

1.1 BACKGROUND AND STATEMENT OF THE PROBLEM

According to the World Health Organization (WHO) “adolescents” cover the age of 10 to 19 years; “youths” are defined as belonging to the age group of 15 to 24 years, while the terminology young people covers the age of 10 to 24 years. (1).

Sexual activity amongst adolescents has been reported to be on the increase worldwide. Adolescents make up one –fifth of the world’s population. From these, 84% of them live in Africa. (2). Similarly, in Ethiopia, adolescents aged 10 to 20 years constitute 25 % of the population. (3).

Young people are a significant part of the labor force and form the backbone of any country’s economy. The health of young people is thus a key element for social and economic progress/ Neglecting the sexual and reproductive health of young people can lead to high social and economic costs, both immediately and in the years ahead. (3).

Risky sexual Practice, defined as any human sexual contact which put individual’s physical, social and psychological health at risk. It accounts for all sexually transmitted diseases including HIV AIDS and psycho social problems such as altered self-esteem, emotional instability, depression, impaired ability to form long term relationship. (4). Risky sexual practice, including early sexual debut, unprotected sexual intercourse, and multiple sexual partners occur in a broader context. The intensity of involvement in sexual risk practice ranges from no sexual relationship to unprotected sexual intercourse with multiple partners and prostitution. (5).

Associated factors to risky sexual behaviors include: divorced parents, less education, low income, dropping out of school, permissive attitudes, and lack of confidence to avoid sex, peer pressure, drinking, drug use, previous sexual abuse and exposure to sexual content of media (6, 7).

Adolescence is a transition period in life from dependent childhood to self-reliant adulthood and includes the range in which the majority of young people join the labor force. It is the period where young person achieves the highest stage of cognitive and physical development and strive to define their self-identity. A need for independence is also one of the features of this group (3). Adolescents life are at risk because they do not have the information, skills, health services and support they need to go through sexual development during adolescent (4). The vast majority of sexual intercourse during adolescence/youth period is unprotected. Therefore, risk of unwanted

pregnancy, unsafe abortion, and STIs/HIV/AIDS is very high. In addition, lack of accurate information about reproductive health and sexuality, lack of access to health services, lack awareness about contraception and vulnerability to sexual abuse put youth at highest risk (5).

Since the initial case of AIDS was recognized in 1981, in US, the disease has spread wide and became a serious health, economic and social problem of the world than any other health problem a human being currently faced (8).

According to UNAIDS fact sheet of global HIV statics of November 2016, around 36.7 million people were living with HIV, 1.1 million people died from AIDS related illnesses at the end of 2015, 78 million people have become infected with HIV since start of epidemic. Worldwide, 2.1 million people became newly infected with HIV in 2015. Every year since 2010, around 1.9 million adults have become newly infected with HIV (1).

In 2015, there were 6.5 million people living with HIV in western and central Africa. Women account for nearly 60% of the total number of people living with HIV in western and central Africa. There were an estimated 410 000 new HIV infections in region.

According to MOH Nov 2015 report, Ethiopia is in a low generalized HIV epidemic with significant heterogeneity among regions and population groups. Estimated 753,100 people are living with HIV in Ethiopia with a declining national HIV prevalence, in 2011 it was estimated to be 1.5% (DHS 2011) and 1.1% in 2015 (2014 Spectrum projection); urban are more affected than rural areas while females are twice affected than male population with HIV. There were about 4,416 people living with HIV in Benishangul Gumuz regional state in the year 2015 of whom about 114 were new cases that year and about 134 people were died of AIDS related health problems in same year.

In Ethiopia, most of studies were done on adolescent sexuality in other towns such as Pawe, Dire Dawa, Haromaya, Boddeti, Guraghe, Gojjam, Gondar, Bahir Dar, Humera, Mekelle, Addis Ababa but not in Assosa. Based on the magnitude of the problem and the gaps of knowledge in this area, this study sets out to study risky sexual behavior amongst adolescents attending public secondary and preparatory school in Assosa.

And the reason students are selected is because most of them are in the age of adolescence which are about our country's one third of the population, and in whom about 50 % STI including HIV

are prevalent worldwide. Further more Young people are at high risk of STIs/HIV for a variety of reasons, such as lack of knowledge about STIs/HIV, not perceiving themselves to be at risk, lack of access to or inconsistent use of condoms, increased number of sexual partners leading to increased risk of exposure, biological factors (a young woman's cervical epithelium is more susceptible to infections), economic factors (adolescents may live or work on the street and participate in "survival sex" or "transactional sex") and social factors: being forced into a sexual relationship, lacking the skills and power to negotiate condom use, and encountering gender norms, double standards, cultural, religious regarding sexuality and fertility (6).

A basic education of good quality for all children offering sound knowledge about sexuality and HIV is essential. Any intervention measure towards youth should appropriately aim at school which is where at least a substantial proportion of them are found. School is easy and conducive to provide them with information alongside their formal training and most important of all they will have the chance to internalize what they have been taught among themselves.

1.2. SIGNIFICANCE OF THE STUDY

The youth form one third of Ethiopia's population today. Negative sexual and reproductive health outcomes threaten the health of these youth and destabilize their lives.

Limited studies were done among young people about sexuality in Assosa. Furthermore, talking about sexuality in the area is a taboo and unheard of. The indigenous community a closed community which is quite conservative in its outlook to sexuality. It is also a trade and tourist center partly because of the Great Renaissance Dam. This makes it a high risk area for commercial sex, drug usage, sexual violence, cross generational and childhood marriage and many others which continue to threaten the youth and their reproductive and sexual health and rights.

The knowledge generated through this study will provide local data on the sexual behavior of the youth in the context of the economical, socio-cultural background. It helps policy makers, health program planners and, the stake holders (like parents, school's administrators, religious leaders and those working on adolescents) to design intervention strategies. Thus, this study will be believed to have significant role in further efforts to control and prevent HIV/STI in these settings. It may also serve as a baseline for other researchers to study such problems in depth in the study area besides filling the literature gap.

1.3. LITERATURE REVIEW

In many countries where HIV prevalence is high, young people become more vulnerable and are potentially at risk. Most people initiate sexual activity during adolescent. As the study made in eleven countries across the globe, the highest prevalence in premarital sexual initiation was found in sub-Saharan Africa. More than half of all adolescents aged 15-19 years are sexually experienced. The age of starting sexual intercourse is heavily dependent on local cultural sanctions and is often very different for males and females. Much of this activity is risky and contraceptive use is often erratic or inconsistent, so unwanted pregnancy and unsafe abortions are observed in many settings. Studies have revealed high level of knowledge about the transmission of HIV among young people with a paradoxically high level of risky activity. Various studies indicated that, large percentages of sexually active youth have engaged in sexual intercourse with more than one partner (10, 11).

Condom use is a key means of preventing risky sexual behavior. Although data from sub-Saharan Africa and the developed countries suggests that use of condom by adolescent is increasing worldwide, the proportion of sexually active young people who report condom use at most recent sex is clearly, too low to prevent the spread of STIs. WHO estimated that 340 million new cases of curable STIs – syphilis, gonorrhea, and trichomoniasis occur every year. Young people are the most affected group in the population. The largest number of new infections occurred in south and south East Asia, followed by sub-Saharan Africa. The dangers of sexually transmitted infection; HIV, unwanted pregnancy, and abortion are higher (12,13). Of the estimated 333 million new STDs that occur in the world every year, at least one-third occur in young people under 25 year of age. According to WHO estimates, 1 in 20 adolescents worldwide acquires an STD each year. Studies conducted both in develop and developing countries have confirmed that STDs are a major public health problem, but in sub-Saharan Africa the incidence rates are far higher. The prevalence of STDs in Ethiopia is the highest in Africa. Globally, in the past 20 years, more than 6 million people have been infected with HIV, half of whom became infected between the age 15 and 24 years (14, 15).

The majority of new infections in Africa are among young people aged 15 to 24. In 12 countries of Sub-Saharan Africa, at least 10 percent of those aged 15 to 49 are estimated to be infected with HIV. In Botswana, South Africa and Zimbabwe, it is estimated that more than 60 percent of

youngster aged 15 today will become infected with HIV during their lifetime (16). In countries around Southern Africa, high prevalence is maintaining alarmingly high levels in the general population. Unlike women in other regions in the world, African women are more likely acquire the infection. They have a chance of 1-2 times to be infected with HIV than men. Among young people aged 15-24, this ratio is higher. Although basic knowledge of HIV/AIDS has increased among young people in recent years, it is still disturbingly low in many countries, especially among young women (1).

In Ethiopia studies indicate a reported prevalence of 2-3% of STI among the youth 15-24 years in different parts of the country. Different behavioral studies conducted among urban youth indicated that about 33-49% of male 6-10% of female adolescents were sexually active with mean age at first sexual debut of 11-17 years for both sex (18, 19)

According to a study done in Addis Ababa High School Adolescents it was found that 26.7% of students had risk sexual practice. The median age at first sex was 16. Regarding condom use during the first sexual intercourse, from 20.8% sexually active respondents 56.9% did not use condom. More than a quarter (37.4%) had three and more number of sexual partner (20).

A study done western zone of Tigray revealed that the prevalence of risky sexual behavior among grade 9-12 students in Humera town was found to be 13.7%. Having peer pressure and watching pornographic movies were significantly associated with risky sexual practice. On the other hand, participation in religious education and living with parents were protective factors for risky sexual behavior (21).

Prevalence of risky sexual behavior in Tana Haik secondary and preparatory school (Bahir Dar town) was 26% of the participants were sexually active, 34% of participants replied as they have two or more sexual partners and 27% of them reported that they have never used condom during their first sexual intercourse (22). These are comparable findings to those Haramaya High and Preparatory School youth which was 25.5%, From sexually active youths: 34.3% of them did not use condom during the last sexual intercourse and 46.7% of them had sexual intercourse at the age less than 15-year-old (23).

A study conducted among students of Boditti secondary & preparatory school (Wolaita zone) showed that among the sexually active students (29.1%), about 17.9% of them had risky sexual

behavior. The age at first sexual debut was 16.6. And The same study revealed 70.3% of the respondents committed sex had more than one sexual partner (24).

According to a study done in Beneshangul Gumuz region: In Pawe secondary and preparatory students about 24.1% of the respondents reported that they had practiced risky sexual intercourse. The mean age at first sexual intercourse was 14.61 ± 2.89 SD for male and 15.74 ± 2.165 SD years for female (25).

2. OBJECTIVE OF THE STUDY

2.1. GENERAL OBJECTIVE

To assess risky sexual behavior and associated factors among youths attending secondary and preparatory school in Assosa, BGRS, Ethiopia.

2.2. SPECIFIC OBJECTIVE

- To determine the magnitude of risky sexual behaviors among school youths.
- To assess factors associated with risky sexual behaviors among school youths

3. METHODOLOGY

3.1. STUDY DESIGN

A cross sectional school based study was conducted between 10th April to 07th May, 2018.

3.2 . STUDY AREA

The study was conducted in Assosa town, capital of Beneshangul Gumuz regional state, West Ethiopia. It's about 661 KM from Addis Ababa, Capital of Ethiopia. Located in the Assosa zone, this town has a latitude and longitude of 10° 04' N 34° 31' E / 10.067° N 34.517° E, with an elevation of 1570 meters. The town is bordered on the south by the Mao-Komo special woreda, on the west by Sudan and northeast by the Kamashi. Based on figures from CSA in 2005, it has an estimated total population of 20,226 of whom 10,929 are men and 9,297 are women (26). It has 5 primary, 3 secondary, 1 preparatory schools and 1 university.

2,000 students were enrolled to Assosa secondary and preparatory school in the 2010 E.C academic year.

3.3. STUDY POPULATION

Source population were all high school students who were enrolled in grade 9th -12th in 2010 E.C in Assosa secondary and college preparatory school. Whereas, study population were all students aged 15 to 24 years attending their education in Assosa secondary and preparatory school during the study period.

3.4. SAMPLE SIZE

The sample size was calculated using single and two population proportion formulae by considering the following assumptions: proportion of risky sexual behavior to be 24% from a previous study (25), proportion of factors associated with risky sexual behavior 50%, confidence interval 95%, the margin of error 5%, power 80% and 10% non-response rate and total population of school students = 2000. Then, the sample size was calculated as follows:

$$n = \frac{(Z_{\alpha/2})^2 p (1-p)}{d^2}$$

$$\frac{(1.96)^2 (0.24)(0.76)}{(0.05)^2} = 280$$

Finite population correction formula was used since the total population was less than 10,000.

$$n = \frac{\frac{Z^2 p(1-p)}{d^2}}{1 + \frac{1}{N} \left(\frac{Z^2 p(1-p)}{d^2} - 1 \right)}$$

$$\frac{280}{1 + \frac{280}{2000}} = 246 + 10\% \text{ nonresponse rate}$$

$$n_1 = \underline{271.}$$

And for the second objective I used two population proportion formula as follows:

$$n_2 = \frac{(Z_{\alpha/2} + Z_\beta)^2 * [p_1(1-p_1) + p_2(1-p_2)]}{(p_1 - p_2)^2}$$

$$n_2 = \frac{(1.96 + 0.84)^2 * [0.24(1-0.24) + 0.5(1-0.5)]}{(0.24 - 0.5)^2} \dots \quad n_2 = \underline{50.}$$

Therefore, the final sample was calculated as $n_1 + n_2$: which was $271 + 50 = \underline{321}$.

3.5. SAMPLING TECHNIQUE

A systematic random sampling technique was employed to select a representative sample of adolescent students in each grade. The sample size will be distributed proportionally to each grade based on the number of students.

3.6. ELIGIBILITY CRITERIA

3.6.1. Inclusion criteria

- a) Students aged between 15-24 years.
- b) Actively enrolled regular students

3.6.2. Exclusion criteria

Those who were unable to comprehend the questions due to medical conditions like visual impairment and provide an informed consent.

3.7. STUDY VARIABLES

3.7.1. Independent Variables:

- Socio demographic variables: Age, Sex, Educational Level, Family income, Ethnicity, Religion, Family size, Parents Marital Status and Habits (Alcohol, Drugs, Khat and Cigarette).
- Knowledge of HIV/STI

- Risk perception towards HIV/AIDS and STIs.

3.7.2. Dependent Variable:

Risky sexual behavior

3.8. OPERATIONAL DEFINITIONS

Risky Sexual Behavior- School adolescent who have sexual contact with multiple sexual partners or casual partner, or Commercial Sex Worker or experience unprotected sex.

Unprotected sex – A sexual act without or with occasional use of condom.

Consistent Condom use – Non-interrupted condom utilization during all episodes of penetrative sexual act with all forms of sexual partners.

Commercial Partner - A person who has his/her own means of income and engaged in a sexual practice by providing money, gift or favor to his/her sexual partner.

Early sexual practice – A sexual commencement practiced at age ≤ 15 years.

Rape - is the act of forcing an adolescent student through violent threats and deception to engage in sexual behaviors with penetration of the vagina or anus.

Knowledge of STI/HIV - Very good knowledge: $\geq 75\%$, good knowledge: 50%-74% and poor knowledge $\leq 50\%$.

3.9. DATA COLLECTION

Data collection process; two data collectors who completed grade 10 students were recruited. The data collectors were given training for 3 days. The principal investigator, supervises and support data collectors during the data collection process.

In ensuring the quality of data, all the data from the school was checked for completeness, accuracy, clarity and consistency was checked by the principal investigator and the supervisor, immediately after data collected.

4. DATA ANALYSIS

Data was entered, cleaned and analyzed using Statistical Package for Social Sciences (SPSS) version 20. Descriptive statistics was calculated to describe data. Bivariate and multivariate logistic regression analyses were used to determine the presence of statistically significant associations between the outcome and the independent variables. Crude and adjusted odds ratios with 95% CI was calculated and a p -value less than 0.05 was considered statistically significant.

5. ETHICAL CONSIDERATIONS

Ethical approval was obtained from Department of Public Health, SPHMMC. And formal letter was written by the college to Assosa Secondary and Preparatory School explaining objectives of the study and its significance, relevant permission was asked to obtain desirable cooperation and necessary information during data collection. At individual level, the purpose of the study was discussed with all participants prior to their participation in this study. Furthermore, the participants were informed that their participation in the study was voluntary and that they were not obliged to answer any question with which they were uncomfortable and was also free to withdraw their participation from the study at any time they want. Participants were assured that confidentiality would be maintained.

6. RESULT

6.1. SOCIO - DEMOGRAPHIC CHARACTERISTICS

A total of 321 youth participated in the study. Out of them 52.6% were males. The mean age of the study population was 18.37 ± 1.56 SD years. Majority of the respondents (73.5%) were in 16-18 years of age. Two hundred ninety-six (94.8%) of the participants were never married. One hundred (31.2%) of the respondents were grade 9th, 81 (25.2%) were grade 10th, 80 (24.9%) were grade 11th and 60 (18.7%) were grade 12th. The majority of respondents; 149 (46.4%) were Amhara by ethnic group and 179 (55.8%) were orthodox Christian followed by Islam, 71 (22.1%). Two hundred twenty-seven (70.7%) were living with their parents while 12 (3.7%) were living alone (Table 1).

Table 1. Socio-Demographic characteristics of high school youth, Assosa town, Assosa woreda, Benishangul Gumuz Region, May 2018.

Variables		Sex of participant		Total
		Male	Female	
Age	16 - 18	119 (37%)	117 (36.5%)	236 (73.5%)
	19 - 31	50 (15.6%)	35 (10.9%)	85 (26.5%)
Educational level	Grade 9	52 (16.2%)	48 (14.9%)	100 (31.2%)
	Grade 10	43 (13.4%)	38 (11.8%)	81 (25.2%)
	Grade 11	42 (13.1%)	38 (11.8%)	80 (24.9%)
	Grade 12	32 (9.9%)	28 (8.7%)	60 (18.6%)
Marital Status	Married	3 (1%)	6 (2%)	9 (3%)
	Single	162 (51.9%)	134 (41.7%)	296 (94.87%)
	Divorced/ widowed	4 (1.28%)	3 (1%)	7 (2.24%)
Ethnicity	Amhara	74 (43.8%)	75 (49.3%)	149 (46.4%)
	Oromo	36 (21.3%)	39 (25.7%)	75 (23.4%)
	Berta	21 (12.4%)	12 (7.9%)	33 (10.3%)
Religion	Islam	48 (28.4%)	23 (15.1%)	71 (22.1%)
	Orthodox	83 (49.1%)	96 (63.2%)	179 (55.8%)
	Protestant	36 (21.3%)	27 (17.8%)	53 (19.6%)
	Catholic	0 (0%)	6 (3.9%)	6 (1.9%)
	Other	2 (1.2%)	0 (0%)	2 (0.6%)
With whom do you live currently?	with father and mother	109 (64.5%)	118 (77.6%)	227 (70.7%)
	with father only	0 (0%)	13 (8.6%)	13 (4%)
	with mother only	10 (5.9%)	8 (5.3%)	18 (5.6%)
	with relatives	24 (14.2%)	2 (1.3%)	26 (8.1%)
	with friends	10 (5.9%)	4 (2.6%)	14 (4.4%)
	alone	8 (4.7%)	4 (2.6%)	12 (3.7%)
	other	8 (4.7%)	3 (2.0%)	11 (3.4%)

6.2 SEXUAL BEHAVIOR

6.2.1. Sexual History

Overall, 80 (24.9%) of the respondents {48(60%) were males and 32(40%) were females} were reported that they had practiced sexual intercourse. Among the study participants who had practice sexual intercourse, 55 (68.7%) were below the age of 18 years and the mean age at first sexual intercourse was 16.63 ± 1.9 SD (Table 2).

Table 2: Sexual behavior of high school youth, Assosa town, Assosa zone, BGRS, May, 2018.

Variable		Number	Percent
Ever had sex intercourse n=321	yes	80	24.9
	no	241	75.1
Sex: of sexually active n=80	Male	48	60
	Female	32	40
Age at first sex: n=80	16 - 18	55	68.8
	19 - 31	23	31.2
Number of sexual partner: n=80	1	24	30
	≥ 2	56	70
Frequency of condom use during any sexual episode: n= 80	Inconsistent	19	51.4
	Consistent	18	48.6
Reason For not/Inconsistent Condom Use	Not available	4	28.6
	Not comfortable	8	57.2
	Don't think it's necessary	2	14.2
Sexual intercourse with CSW n=80	Yes	12	15
	No	68	85
Condom use with CSW n= 12	Yes	10	88.3
	No	2	11.7
Risky sexual behavior: n= 321	Yes	79	24.6
	No	242	75.4

6.2.2. Risky Sexual Behavior

Among 80 (24.9%) students who ever had sexual intercourse, 37 (46.3%) had used condoms during the first time when they had sexual intercourse while 51 (62.7%) were never used. Out of those 29 (36.3%) students who were sexually active and ever used condom during the previous 12 months, 19 (51.4%), and 18 (48.6%) of students were using condoms sometimes, and always respectively.

The reason for none or inconsistent use of condoms were Not comfortable 8 (57.2%), Not available 4 (28.6%), and Don't think it's necessary 2 (14.2%). Among sexually active male respondents; 12 (15.5 %) of them had history of sexual intercourse with female commercial sex workers. Although 38 (47.5%) of the respondents in this study had one sexual partner in the past, still significant proportion 56 (70%) reported to have two or more sexual partners. Of the 80 (24.9%) sexually active participants 79 (24.6%) have developed risky sexual behavior.

The reasons reported for the initiation of the first sexual intercourse encounter in those who ever practiced sexual intercourse were in 29 (36.3%) of them sexual desire, in 15 (18.8%) peer pressure, in 13 (16.3%) influence of substances like alcohol, and cigarette and 4 (5%) economic problem, 1 (1.3%) rape and the remaining 18(22.8%) do not remember/do not know the reason for initiation of sexual intercourse (Figure 1). Overall the magnitude of risky sexual behavior was 24.6% among the school youths (Figure 2)

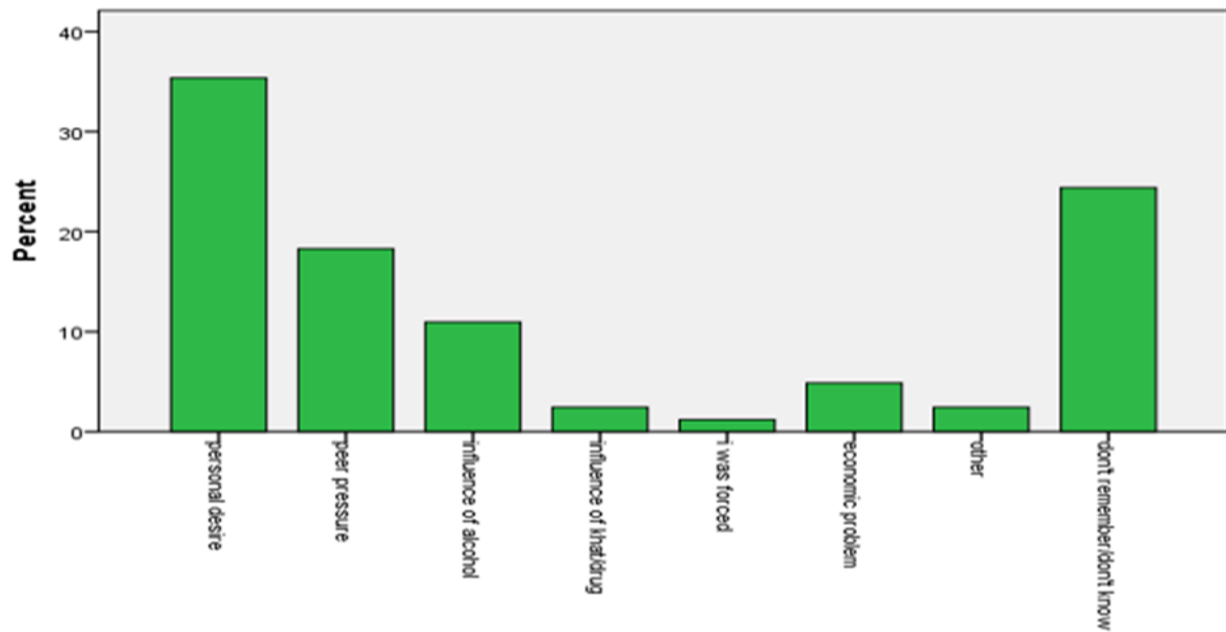


Figure 1. Reasons for initiation of sex among high school youth, Assosa town, Assosa zone, BGRS May, 2018.

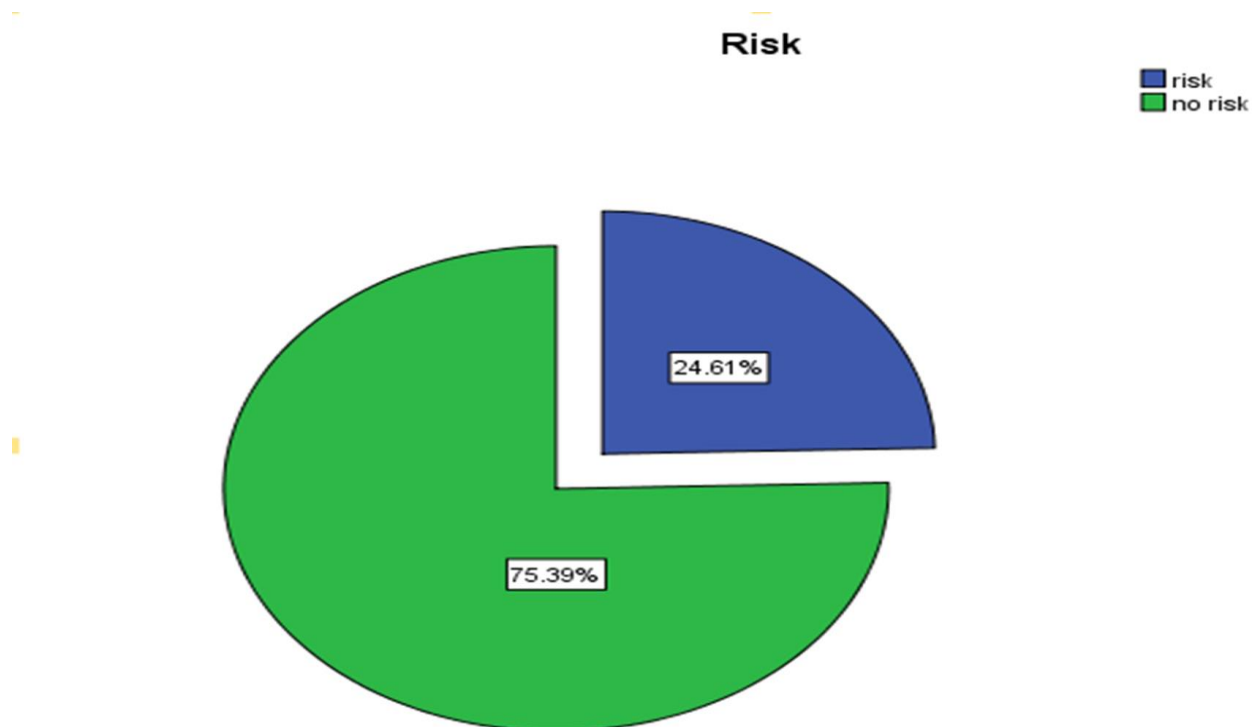


Figure 2. Magnitude of risky sexual behavior among high school youths, Assosa town, Assosa zone, BGRS May, 2018.

6.3. RISK PERCEPTION

Table 3: School adolescents risk perception among high school youth in Assosa towm, May 2018.

Variables		Male	Female	Total
Chance of acquiring HIV/STI	No chance	74 (43.8%)	73 (48%)	147(45.8%)
	Low chance	25 (14.8%)	17 (11.2)%	42 (13.1%)
	Moderate chance	13 (7.7%)	9 (5.9%)	22 (6.9%)
	High chance	27 (16%)	16 (10.5%)	43 (13.4%)
	Don't know	30 (17.8%)	37 (23.3%)	67 (29.1%)
	Total	169 (52.6%)	152 (43.3%)	321 (100%)
Why at risk:	Having multiple partner	19 (35.2%)	4 (12.9%)	23 (27.1%)
	Never use condom	4 (7.4%)	16 (51.6%)	20 (25.3%)
	Had sex with CSW	4 (7.4 %)	2 (6.5%)	6 (7.1%)
Why not at risk:	Abstain from intercourse	11 (12.2%)	6 (6.7%)	17 (9.5%)
	Faithful to my partner	12 (13.3%)	11 (12.4%)	23 (12.8%)
	Always use condom	4 (4.4%)	3 (3.4%)	7 (3.9%)

Among students who ever had sex, regards to personal perception to HIV/STI, 66 (82.5%) of the students {40 (67.5%) males and 16 (32.5%) females} claimed that their chance of contracting HIV/STI was moderate to high. Whereas 189 (58.9%) of students [99 (30.8%) males and 90 (28.%) females] reported that they had low to no chance at all. Reasons given by the students for being at high risk was, 23 (28.8 %) had more than one sexual partner, 20 (25%) did not use condom consistently, and 6 (7.5%) had sex with Commercial Sex Worker (Table 3).

6.4. FACTORS RELATED TO RISKY SEXUAL BEHAVIOR

To examine the effect of some of the explanatory variables by controlling the effect of confounders on risky sexual behavior exposing them to HIV/STI, binary regression analysis was carried out. Being single AOR=8.5 (CI: 1.901, 8.550), family marital status being divorced, widowed or separated AOR= 2.4 (CI: 1.34, 4.37) and alcohol consumption AOR= 7.139 (CI: 3.816, 13.356) were independently and positively associated with risky sexual behavior. Other variables did not show any statistically significant association (Table 4).

Table 4. Selected Socio-demographic predictors of risky sexual behavior among high school youth Assosa Woreda, Assosa Zone, May 2018.

Variables	Risky Behavior		COR	AOR	P-value
	Yes	No			
Age:					
16 - 18	63	173	0.462 (0.528 - 4.071)	1.135 (0.522-2.469)	1.123
19 - 31	16	69	1	1	
Sex:					
Female	34	118	1	1	1.525
Male	45	124	0.377 (0.520 - 3.257)	0.693 (0.361-1.327)	
Education:					
Grade 9	25	75	0.917(0.442-1.901)	0.661 (0.263-1.659)	0.427
Grade 10	18	63	0.786 (0.362-0.362)	0.652 (0.254-1.671)	
Grade 11	20	60	0.917(0.427-1.968)	0.571 (0.217-1.503)	
Grade 12	16	44	1	1	
Marital status:					
Single	73	239	19 (5.99-60.52)	8.5 (1.901-8.550)	0.005
Married	6	3	1	1	
Family size:					
2 - 4	21	49	0.394 (0.181-0.858)	3.441(0.491-24.115)	0.632
5 - 6	45	116	0.435 (0.220-0.860)	1.264(0.345-4.639)	
≥ 7	13	77	1	1	
Family marital status:					

Live together	63	210	1	1	0.003
Div/Wid/Sep.	16	22	2.4 (1.34-4.37)	7.8 (1.31-4.7.2)	
Live with whom:					
With father and mother	46	181	1	1	0.012
With Father/Mother	8	23	12 (5.20-28.46)	1.2 (0.19-7.22)	
With relatives/friends	13	27	15.9 (4.81-52.91)	11 (2.21-56.01)	
Alone	5	7	17 (4.80-62.44)	9.5 (1.89-48.07)	
Residence Situation:					
Live in the town	46	200	3.502 (1.952-6.285)	0.262(0.120-0.573)	0.693
Came from rural area and live town	33	42	1	1	
Father's Education:					
Illiterate	12	22	0.962(0.548-1.69)	1.07(0.49-2.336)	0.437
Literate	67	220	1	1	
Mother's Education:					
Illiterate	14	35	0.248 (0.417-1.254)	0.57(0.269-1.209)	1.830
Literate	65	207	1	1	
Alcohol consumption:					
Never Drunk	25	193	1	1	0.000
Drunk (weekly/daily)	54	49	8.508(4.819- 15.020)	7.139 (3.816-13.356)	
Khat chewing:					
Never chewed	58	216	1	1	0.181
Chewed (weekly/daily)	21	26	2.78 (1.20-6.44)	1.401 (0.460-4.370)	
Age at first sex:					
14-15	20	1	2.500 (0.208-30.118)	1.524 (0.350-3.474)	0.471
16-17	40	3	1.667(0.254-10.931)	0.542 (0.210- 8.054)	
18-24	16	2	1	1	

7. DISCUSSION

Bivariate analysis was carried out to identify predictors of risky sexual behavior and all variables with $P < 0.3$ were selected to be included in multivariate logistic regression. Multivariable logistic regression analysis was done to identify the effect of independent factors after controlling other confounding variables. The overall model to predict the probability of risky sexual behavior was statistically significant ($P < 0.05$). After controlling for effects of potential confounding variables, *being single, family marital status being divorced, widowed or separated, and alcohol consumption* were significantly associated with risky sexual behavior.

This study attempted to provide insight into the prevalence and risk factors associated with risky sexual behavior among high and preparatory school youth in Assosa town. It was found that there were several factors that affect youth's sexual behavior. The finding showed that the magnitude of risky sexual behavior was 24.6% among the school youths. This finding was consistent with study conducted in Pawe District in Benishangul Gumuz Region of Ethiopia (25) which was 24.1%, and Haramaya town east Ethiopia (23) which was 25.5%. But, it was slightly lower than the finding of other study conducted in Addis Ababa (20) which was 26.7%. However, the finding of this study was higher than the prevalence of risky sexual behavior among adolescent in Boditi town, Ethiopia (24) which was 17.9% and western zone of Tigray, Ethiopia (21) which was 13.7%. The observed difference could be explained by the access to electronic devices through which youths are easily exposed to pornographic movies and pictures in this area when compared with the two areas.

Female students were found to start sexual intercourse earlier than male and were found to be more exposed to risky sexual behavior than male students 21(66.7%) females initiate sex early (Age ≤ 15 years) compared to 7(33.3%) males. This might suggest that adolescents/youth begin sex too early, which could as a result expose them to develop risky sexual behavior and its consequences. The finding one can understand youth were started to practice sexual intercourse in the early age of their life, which point out the need to give an attention in building life skill for adolescents/youth.

In this study significant proportion 56 (70%) of the respondents who ever had sexual intercourse reported to have two or more sexual partners. This finding is higher than study conducted in west Gojjam zone, Bale Zone and Mojo Town which showed that 33.3%, 47.7% and 53.1% of students

reported to have sexual intercourse with more than one partner respectively (28, 29, 30). This discrepancy might be due to the difference in the growth of the town, since changing conditions due to urbanization and life style, put the health of adolescents at risk.

Among sexually active respondents, about 12 (15%) male students reported experiencing commercial sex, which is also higher than similar previous studies. This finding is comparable to that of high school adolescents in South Gondar Zone which was 14.8% (31). On the other hand, in other studies done among high school adolescents in Bale Zone and Mojo town higher proportion (20.5%) and (38%) of males had sexual intercourse with commercial sex workers respectively (29, 30). The lower result in this study could be due to increased awareness of students about HIV/AIDS or it could be due to under reporting.

Another feature that makes sexual activity of youth at high risk to HIV/STI and unwanted pregnancy is none or inconsistent use of condom. In this study, of 80 sexually active students 25(31.5%) of high school youth have never used condoms during any sexual episode, 19(23.8%) reported ever used condom and only 18 (22.5%) of them claim to have used condoms consistently in the last 12 months. The finding of this study is better compared to studies done in Aleta Wondo and Pawe towns among school youths reported majority of school youth 64.1% and 58.9% have never used condoms during any sexual episode, 35.9% and 41.1% reported ever used condom and only 23.9% and 43.2% of them claim to have used condoms consistently respectively (32, 25).

In this study reasons mentioned not to use condom were don't like 6(24%), don't think of it 6(24%), trust partner 5(20%), too expensive 3(12%) partner objected 2(8%) and others 3(12%). Similar study conducted in Aleta Wondo Town revealed that the barrier or reasons not to using condoms among school youths were lack of information 28.7%, decrease sexual pleasure 26.1%, peer/partner influence 18.3%, fear or embracement to buy and condoms unavailable nearby were account 15.7% each (32).

In this study, majority of the respondents, knew that HIV is transmitted through unprotected sexual intercourse 289(90%), infected blood 240(75.2%), contaminated sharps 200(62.3%) and respondents stated mother to child transmission 167(52.1%). So, it can be concluded that; they have very good knowledge about STI/HIV. A similar study conducted in Bale revealed that the knowledge on mode of HIV transmission known by the school youth were, unsafe sex 94.3%,

unsafe injection 54.7%, contaminated blood transmission 45.7%, and mother-to-child transmission 37.8% (29).

This study found that personal perception to HIV/STI 43(13.4%) of the students claimed that their chance of contracting HIV/AIDS/STI was high while 147(45.8%) said there was no chance at all. Forty-eight (13.1%) low chance and 67 (21.9%) did not know their risk status. This is comparable to a study conducted on high-risk sexual behavior among youth in Tanzania revealed that 11.7% of the participants felt that they were at a high risk of getting HIV/AIDS and STDS, 25% felt that they had a very low risk, while 53.1% felt that they were not at risk at all (33). Other study done in Gondar showed 5.42% of the students claimed that their chance of contracting HIV/AIDS was high while 25.20% said there was no chance at all (31). One hundred and 28.73% did not know their risk status (19). On other hand: a study done in Asella Teaching Hospital reveals 82.1% believed as they were at a risk of acquiring HIV infection and 50.6% respondents labeled themselves as high risk to HIV infection (34).

Some of the reasons why they are at risk: 46.5% had sex without condom, 25% had multiple sexual partners, 23.3% had sex with female commercial sex workers and 18.3% had unsafe injections. Low level of risk perception in this study might suggest school youth do not sense the consequence of risky sexual behavior which needs intensive intervention in developing life skills of the youth.

This study revealed substance use: 38.3% had used alcohol, 14.6% of them had used ‘khat’, 10.6% smoked cigarette and 9.7% used ‘Hashish’. It was found that the odds of having risky sexual behavior were seven times higher for those who drank alcohol at least once than who never drunk with AOR= 7.139 (CI: 3.816, 13.356). This increased rate of alcohol use in the town may indicate that the availability of places for adolescents to spend time out of school there by involve themselves to risky sexual behavior.

This study also showed odds of having risky sexual behavior were two times higher for those whose family were divorced, widowed or separated than whose live together with AOR= 2.4 (CI: 1.34, 4.37). This indicate that family marital status has significant influence on youth sexual behavior. So, having marriage counselor, good religiosity and moral values and any other thing that keep family together might reduce the youths’ risky sexual behavior.

Students, who were single, were about 9 times more likely to develop risky sexual behaviors than who were married.

8. LIMITATIONS OF THE STUDY

The study was mattered to limitations. The behavioral outcomes were based on self-reported information, which was subject to reporting errors and/or recall bias. Since the study was on very sensitive and private issues the possibility of underestimation cannot be ruled out. Since the study was based on cross-sectional data, which implies that the direction of causal relationships cannot always be determined.

9. CONCLUSIONS AND RECOMMENDATION

A considerable number of school adolescents had started sexual activity early and have practiced risky sexual behavior that might predispose them to different sexual and reproductive health problems. Also the study indicated unprotected sex, multiple sexual partners and sex with female commercial sex workers as risky sexual behavior. Alcohol consumption, being single, and family marital status being divorced, widowed or separated were important predictors of risky sexual behavior.

Therefore, from this study the recommendation would be that the school administration and school teachers should take the initiatives to bring about healthy sexual behavior among their students by strengthening anti-AIDS and reproductive health clubs in the schools. In addition to this; the school, education bureau, health bureau, sport commission and other concerned government bodies should work in concert to avail places like youth centers and public libraries for adolescents to spend their time out of school thereby they less involve themselves in risky sexual behavior. Furthermore; marriage counselors, social support groups and religious programs should be advocated in order to lessen amount of failed marriage of parents of the youths so that their children are protected from risky sexual behavior.

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11. ANNEX 1

St. Paul's Hospital Millennium Medical College

Department of Public Health

Questionnaire

Consent

Hello! I am I work for Henok Jiregna who is a final year medical student in under graduate program of medicine at St. Paul's Hospital Millennium Medical College. We brought these questions to you in order to find out conditions which influence sexual behavior of young people. The purpose of this study is to get more information on sexual behavior of high school adolescents that can be used to design appropriate intervention so as to address sexual health problems. Therefore, your honest and genuine participation by responding to the questions prepared is highly appreciated and helpful to attain the objective of the study.

Your name will not be written on this form and no individual response will be reported to anybody. Hence, your answers are completely confidential. You do not have to answer any question that you don't want to answer and you may refuse to answer all of the questions.

Please, if you cooperate by responding to the questions it means that you have your own contribution to the success of this study.

Are you willing to answer?

If yes, proceed to the next page

If no, please stop here.

Thank You!

I – Socio demographic Characteristics

This survey is intended only to school youths. Please read each question carefully and answer them genuinely. I want to remind you that writing your name is not necessary.		
No.	Questions	Coding Categories
101.	Your Sex	1.Male 2.Female
102.	Your age in complete years_____	
103.	Your Marital Status	1. Never married 2. No married but living together with a partner 3. In relationship but not living together 4. Married A 5. Divorced 6. Separated 7. Widowed
104.	Your Ethnicity	1.Berta 2. Gumuz 3. Shinasha 5. Mao 4. Komo 6. Oromo 7. Amhara 8. Tigre 9.Other(Specify)_____
105.	Your Religion	1. Islam 2.Orthodox 3.Protestant 4.Catholic 5. Other (Specify)_____
106.	Your Educational Level	1.Grade 9 2.Grade10 3.Grade 11 4.Grade12
107.	Relative to your neighbors how do you rate your family economic status?	1.Very poor 2.Poor 3.Simillar 4.Better of 5.Rich

		6. Very rich
108.	How Many people are living with you in your family?	_____
109.	What is your parents' marital status?	1. Mother and Father live together 2. Divorced 3. Widowed (Mother/Father died) 4.. Separated

110.	With whom do you live currently?	1. With Father and Mother 2. With Father only 3. With Mother only 4. With Relatives 5. With Friends 6. Alone 7. Other(Specify)_____
111.	How is your residence situation?	1. I live in the town 2. I stay in the town up to the week end 3. I came from rural area and live in a rented house in the town 4. Other(Specify)_____
112.	If you are originally from rural area and currently living in town during school days or the whole time; what is your living arrangement?	1. I live among relatives 2. I live in rented house alone 3. I live in rented house with other students 4. I live rented house with other people who are not students 5. other (specify)_____
113.	What is your father's educational status?	1. Un able to read and write 2. Read and write 3. Grade 1-4 4. Grade 5-8 5. Grade 9-12 6. Above grade 12

114.	What is your mother's educational status?	1.Un able to read and write 2. Read and write 3. Grade 1-4 4. Grade 5-8 5. Grade 9-12 6. Above grade 12
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Part II-Risk Sexual Behavior

I am going to ask you some personal questions about your sexual experience. Since the following questions are more personal and secret, please answer them honestly. Remember your name is not written on the questionnaire.		
No.	Questions	Coding Categories
201.	Have you ever been in relation ship	1.Yes 2 .N o
202.	Have you ever had sexual intercourse?	1.Yes 2 .N o
If your answer is No, skip to question No. 224. But if your answer is yes, answer the following quest ions.		
203.	At what age did you first have sexual intercourse?	1.Age in years_____ 2.Don't know
204.	With whom did you have your sexual intercourse	1. boyfriend/girlfriend 2. husband/wife 3. sugerdadi/sugermami 4. Commercial sex worker 5. Other(specify)_____
205.	What was your reason for initiation of sex?	1. Personal desire 2. Peer pressure 3. Influence of alcohol 4. Influence of Khat or Drug 5. I was forced 6. Economic problem 7. Other(Specify)_____ 8.Don't remember /Don't know

206.	Was a condom used during the first time you had sexual intercourse?	1.Yes 2. No 3. I don't remember/Don't know
207.	How much older or younger was the person with whom you had your first sexual experience?	1 Same age 2.More than 10 years older than me 3.5-10 years older than me 4.Less than 5 years older than me 5.Younger than me 6. Don't remember /Don't know
208.	With how many people did you ever had sex in your life time? (write the number of people you had sex with including commercial sex, forced sex or one time sexual partner)	
209.	If you had more than one partner, what is your reason for having sexual relation with them?	1. to satisfy sexual pleasure which I cannot get it from only one partner. 2. peer pressure 3. Economic problem 4. Alcohol, khat or other drug use 5.Other (specify)_____
208.	Have you had sexual intercourse in the last 12 months?	1.Yes 2.No
209.	With whom did you have sex? (More than one response is possible)	1.Person whom I know for less than 3 weeks 2. Person which I don't know him before 3. Person(s) who had multiple sexual partners 3. Person who had Sexually Transmitted Disease 4. people who have sexual intercourse with CSW (Commercial Sex Worker) 6. Other(specify).....

210.	How frequent was your condom utilization during your sexual episodes	1. I have never used 2. Sometimes 3. Most of the time 4. Always 5. Don't remember
If you didn't have sexual intercourse with a commercial partner the last 12 months, skip to question 214.		

211.	In the last 12 months, have you had ever received any money, gift or favour in return to sex?	1. Yes 2. No 3. Don't remember/Don't know
212.	Did you have sexual intercourse with commercial sex worker?	1. Yes 2. No 3. Don't remember/Don't know
If you didn't have sexual intercourse with a commercial partner/commercial sex worker, skip to question on 217.		
213.	At what age did you had sexual intercourse with commercial sex worker	1. Age in year_____
214.	Who told you to go the commercial sex worker	1. No one told me/My own interest 2. My friends 3. My parents 4. Don't remember/Don't know
215..	By the time you had sex with the commercial partner/commercial sex worker did you and your partner used a condom?	1. Yes 2. No 3. Don't remember/Don't know
216.	If condom was not used, why didn't you and your partner use a condom that time? (More than one response is possible)	1. Not available 2. Not comfortable initiating 3. Partner objected 4. In a hurry 5. Embarrassed to buy or ask for 6. Don't think it was necessary 7. I don't like it 8. I trust my partner 9. I was drunk 10. Don't trust condom as they transmit HIV 11. Due to lack of skill of applying condoms 12. Due to frequent breakage of condoms 13. It reduces my sexual pleasure 14. Other(Specify) _____

217.	Now are you with a regular partner	1. Yes 2.No
If your answer is no, skip to question 224		
218.	If your answer is yes, how long you have stayed together	1.Duration of stay _____ 2. Don't remember/Don't know
219.	If you have one regular partner, what is the reason to remain with him/her?	1.It protects me from getting Sexually Transmitted Infections 2.It will protect me from getting HIV 3.It increases the trust of my partner since I care for him/her 4. Other (specify)
220.	Did you have a sexual intercourse with your regular partner in the last 12 months?	1. Yes 2. No 3. Don't remember/Don't know
221.	Did you ever use a condom during your sexual episodes with your regular partner?	1. Yes 2. No
222..	If yes, how often you use condom?	1.Some times 2. Most of the time 3.Always 4. I don't remember/I don't know
223..	If condom was not used, what was your and your partner's reason for not using it?	1. Not available 2. Too expensive 3.Not comfortable initiating 4.Partner objected 5.In a hurry 6. Embarrassed to buy or ask for 7. Don't think it was necessary 8. I don't like it 9. I trust my partner 10. I was drunk 11. Due to lack of skill of applying condoms 12. Due to frequent breakage of condoms 13. It reduces my sexual pleasure 14. Other _____
224..	Do you think that condom can prevent HIV transmission?	1. Yes 2. No 3. Don't know

The following statements are answered by making (✓) in the boxes provided under your choice. People say many things about condom. Read carefully and answer with each of the statement.		
225.. Condoms are good at preventing pregnancy if used properly <input style="width: 30px; height: 20px; border: 1px solid black;" type="checkbox"/> 1. Agree <input style="width: 30px; height: 20px; border: 1px solid black;" type="checkbox"/> 2. Disagree <input style="width: 30px; height: 20px; border: 1px solid black;" type="checkbox"/> 3. Certainly <input style="width: 30px; height: 20px; border: 1px solid black;" type="checkbox"/> 4. Do not know		
226.. Condoms make sex less enjoyable 1. Agree ☐ 2. Disagree ☐ 3. Certainly ☐ 4. Do not know ☐		
227. Condoms are mostly appropriate for use with causal sex partner 1. Agree ☐ 2. Disagree ☐ 3. Certainly ☐ 4. Do not know ☐		
228. Condoms are easy to use 1. Agree ☐ 2. Disagree ☐ 3. Certainly ☐ 4. Do not know ☐		
229. Condoms use is against my religion 1. Agree ☐ 2. Disagree ☐ 3. Certainly ☐ 4. Do not know ☐		
230. Condoms are offensive to Husband/Wife/Regular Partner 1. Agree ☐ 2. Disagree ☐ 3. Certainly ☐ 4. Do not know ☐		
231. Condoms can climb up in to the womb or stomach 1. Agree ☐ 2. Disagree ☐ 3. Certainly ☐ 4. Do not know ☐		
232. The price of condom is too high to use regularly 1. Agree ☐ 2. Disagree ☐ 3. Certainly ☐ 4. Do not know ☐		
233.. Condoms can prevent Sexually Transmitted Diseases if used properly 1. Agree ☐ 2. Disagree ☐ 3. Certainly ☐ 4. Do not know ☐		
234. Condoms are most appropriate for use with spouse or regular partner 1. Agree ☐ 2. Disagree ☐ 3. Certainly ☐ 4 Do not know ☐		
If you have never started sexual intercourse, skip to question number 237.		
235.	Have you ever been forced to have sex with someone whom you do not know before?	1. Yes 2. No
If you didn't have sexual intercourse with a person that you don't know before, skip to question No. 237.		
236.	If yes, at what age you encountered forceful sexual act for the first time?	1. Age in year ____ 2. Don't remember/Don't know

237.	Do you drink alcohol? (like Tej, Tella, Areke, Beer and the like)	1. I have never drunk 2. I drunk occasionally (2-3 times in a month) 3. I drunk 2-3 times in a week 4. I drink daily
238.	Do you chew Khat?	1. I have never chewed 2. I chew occasionally (2-3 times in a month) 3. I chew 2-3 times in a week 4. I chew daily
239.	Do you smoke Cigarette?	1. I never smoked 2. I smoke occasionally (2-3 times in a month) 3. I smoke 2-3 times in a week 4. I smoke daily
240.	Do you use Hashish?	1. I have never used 2. I use occasionally (1-2 times in a month) 3. I use 2-3 times in a week 4. I use Daily

Part III – STIs

301.	Have you ever heard of diseases that can be transmitted through sexual intercourse?	1. Yes 2. No
If you didn't start sexual intercourse, skip to question No. 401.		
302.	Have you had genital discharge during the past 12 months?	1. Yes 2. No
303.	Have you had a genital ulcer/sore during the past 12 months?	1. Yes 2. No

Part IV - Knowledge on HIV/AIDS

NO	Questions	Coding Categories
401.	Have you ever heard of HIV or the disease called AIDS?	1. Yes 2. No

402.	Of the following mode of transmission for HIV which one do you think is the possible way (More than one response is possible)	1. Sexual intercourse 2. Blood transfusion 3. Mother to child 4. Using contaminated injection needles 5. Using contaminated instruments 6. Shaking a person's hand 7. Through air 8. Other_____ 9. Don't know
403.	Can a person get the HIV virus from mosquito bites?	1. Yes 3. Don't know 2. No
404.	Can a person get HIV by sharing a meal with someone who is infected with HIV?	1. Yes 3. Don't know 2. No
405.	Can a person get HIV by getting injections with a needle that is not clean?	1. Yes 3. Don't know 2. No
406.	Can a person get HIV infection if he/she wears a cloth of HIV infected person?	1. Yes 3. Don't know 2. No
407.	Can a person get HIV by sharing a room with HIV positive person?	1. Yes 3. Don't know 2. No
408.	Can people protect themselves from HIV by abstaining from sexual intercourse?	1. Yes 3. Don't know 2. No
409.	Do you think that a healthy looking person can be infected by HIV?	1. Yes 3. Don't know 2. No
410.	Do you think that a person who has the virus but looks healthy can transmit the virus?	1. Yes 3. Don't know 2. No

Part V- Personal risk perception

No.	Questions	Coding Categories
501.	Is AIDS going to be a serious threat to the health of the community?	1. Yes 3. Don't know 2. No

502.	What is your chance of being infected with HIV?	1. No chance 2.Low chance 3.Moderate 4. High 5. Don't know
503.	If your answer is No chance, why?	1. I never had sexual contact 2. Abstained from sexual intercourse 3. I trust my sexual partner 4. No injection with unsterile needles 5. I always use condom 6. I am healthy, no contact with HIV patient 7. Other (Specify) _____ 8. Don't know
504.	If your answer is Moderate or High, why?	1. I had sexual contact with HIV positive person 2. I had sexual contact without condom 3. I have more than one sexual partners 4. I had sex with Commercial Sex Worker 5. I encountered condom breakage 6. I had unsterile injection/cut 7. Other _____ 8. Don't know
505.	Do you think that a person can avoid AIDS by changing his/her behavior?	1. Yes 2.No 3. Don't know
506	Do you intend to make any change in the future?	1.Yes 2.No

507.	What change do you plan to prevent yourself from HIV/AIDS infection? (More than one response is possible)	1.Avoid sex with stranger 2.Reduce number of partners 3.Avoid sex with commercial sex worker 4.Sexual abstinence 5.Greater care in choosing partner 6.Avoid unclean needles/instruments 7.Avoid receiving blood 8.Gating alone 9.Avoid public toilet 10.Not sharing clothes 11.Not touching strangers 12.To remain with one partner 13.To use condom during every sexual episode 14. Other(Specify) _____
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