Research Paper Medical Science

Risky Sexual Behavior Among Secondary and Tertiary Level Students, Hawassa, Ethiopia

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ABSTRACT

Introduction: HIV/AIDS remains one of the most serious challenges to global public health for more than 25 years. 15-24 aged people represent 45% new HIV infections worldwide.
Objective: To assess risky sexual behaviors and related factors among students at secondary and tertiary level Hawassa, Ethiopia.
Methods: cross-sectional study with stratified random sampling from1550 respondents.
Results: 37.5 % had ever sex with the commonest time of preparatory level (33.2%) grades nine and ten (31.5%) with 6.5% of them initiated their first sex with commercial sex workers. 9.7% had paid sex, 13.4% with non regular partner and 34.8% of them had multiple sexual partners. 20% committed paid sexes without condom, 27.5% non regular partners who committed paid sex (47.3%) use it inconsistently.
Summary: Condom non use is common with all types of partners. HIV Risk perception is very low. Behavioral change intervention on misperceptions, safe sexual practices should be more strengthened.

KEYWORDS HIV/AIDS, Sex Worker, Preparatory School, Ethiopia

Introduction

HIV/AIDS remains one of the most serious challenges to global public health for more than 25 years. Young people (ages 15-24) represent 45 percent of all new HIV infections worldwide. In sub- Saharan Africa, young women aged 15–24 years are eight times more likely than men to be HIV positive. In Ethiopia, in 2009/10 an estimated 1.1 million people is living with HIV with an estimated adult HIV prevalence of 2.4%. In Hawassa, there is anecdotal information, suggesting students in general and students of Hawassa University in particular as engaged in risky sexual activities to the height of paid sex. This study is aimed to measure the prevalence of HIV and related risk behaviors among students in various educational institutions of Hawassa. Information on the HIV/AIDS prevalence and related risk behaviours among students provides a crucial foundation for efforts aimed at developing an appropriate intervention measures and to a move towards achieving the MDG goal on HIV/AIDs.

Objectives

General

To assess risky sexual behaviors and related factors among students at secondary and tertiary level

Specific

1. To assess the HIV related risky sexual behavior of students
2. To determine factors related to risky sexual behavior of students

Methods

Study design

Cross-sectional study was used to assess the risky sexual behavior of students in the context of consistent condom use, having multiple sexual partners and having sex with commercial sex workers. Moreover, the sero-prevalence of students will be assessed as a secondary outcome of the study.

Population

Source- All regular secondary and undergraduate tertiary level students will be the source population of this study.

Study- All regular secondary and undergraduate tertiary level students who are attending their study in the selected high schools, colleges and four campuses of Hawassa university in the year 2011.

Sample size and sampling technique

Sample size - Single population proportion formula with the prevalence of HIV risk perception to be 19% among students, margin of error of 2%

- Single population proportion formula
- Epi info 3.3.2 version
- Source population estimation: 60,000
- P=19%(HIV risk perception) (Berhane Y. etal,2009)
- d=2%, CI=95%, NR=5%
- Final Sample size=1550

Sampling technique

Stratified random sampling design was used – Educational institutions was first stratified by their level into secondary (preparatory schools) and tertiary (Colleges and university). Then the secondary institutions (schools) were further stratified by ownership into private and government schools, and tertiary institutions into boarding and non-boarding. A random sample of study settings was selected from each stratum. Enumerated list of students from the respective college registrar office of the selected strata (school, college and university) was obtained and further stratified by year of study and sex. Finally proportional number of study participants was selected from each class year of study stratified by sex randomly using computer generated random numbers. Ethical clearance was issued by the Hawassa University and respondents were assured for confidentiality

Variables

Dependent

Risky sexual behavior (condom non-use)

Independent

Socio-demographic variables

HIV Risk perception
Class Year of student
Substance use

Inclusion and exclusion criteria
Inclusion criteria
All regular (day time) students who are able to see was included

Exclusion criteria
Students in extension (CEP) modes, post graduates and those who are unable to see were excluded for the reason of age, economical difference and privacy issues.

Data collection:
Data was collected using the structured and standardized self administered questionnaires from WHO behavioral survey tools by selected research assistances.

Data analysis:
The collected data was entered, cleared and edited using EPI-info version 5.3.1 then analyzed using SPSS version 16 statistical software. Logistic regression model was used to analyze the possible predictors of risky sexual behavior. Primarily, data was entered in to bivariate logistic regression and those variables having a significant level of P≤ 0.2 was entered to multiple logistic regressions. In the multiple logistic regressions stepwise regression was used to control the effect of multicolinearity. Finally, P≤ 0.05 was used as a cut point for the predictor variables in the parsimonious model for the possible explanation of chance for the observed association. Assumptions of the model were checked by residual analysis.

Results
(30.7%) 473 were third year university/college students, followed by second and first year students with the least grades nine and ten. Males were the dominant respondents (78.2%). The mean age of the participants was 20.6±2.3 years. Most of the participants; 56.9% were orthodox Christians. 14.3% were from private educational institutions**.** 61(4.2%) and 43(3%) were living away from their families in rented house alone and with other students together respectively**.**

Substance Use
Within four weeks period preceding the survey, out of 1531 students who responded to the item on alcohol use, 1130(73.8%) never consumed alcohol. However among those who used alcohol 32(2.1%) did so every day. Similarly, out of 239 students who chewed chat in a month preceding the survey, 82(5.4%) chewed every day. Among the study participants who responded to have smoked Shisha; 91(6%), 17(1.1%) reported to have smoked every day

Sexual History and related Risky Sexual Behaviours
37.5 % (579) of the study participants who have ever had sexual intercourse. Majority of whom, 483(83.4 %) were males by sex. The commonest time of sexual debut by students was during a preparatory education level179(33.2%) followed by grades nine and ten together comprising about 170(31.5%).The least being during fourth and fifth year college and university study years. During their first sexual encounter, more than half, 280(51.9%) reported to have sex with their regular boy or girl friends. About 6.5% had initiated sex with CSW (Figure 1).

293(53%) of students had first sex with partners of similar age. However near to one in ten, 47 (8.5%) committed sex with people older by more than 10 years. Concerning the occupation of the first sexual partner of the students, 71.3% were students themselves.

The commonest reason for their first sexual encounter was keeping in love, 228(44.1%) followed by sexual desire, 154(29.6). Getting money was a driving force of sex in 14(3.3%) of students who ever had sex. (Figure 2)

Figure 1: Types of first sexual partners

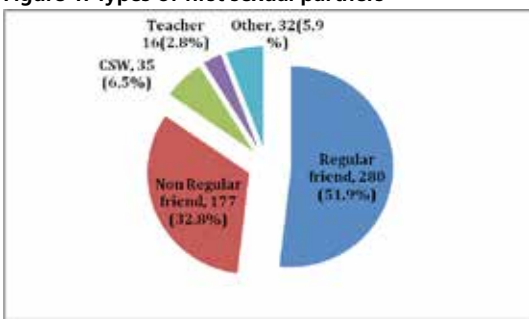
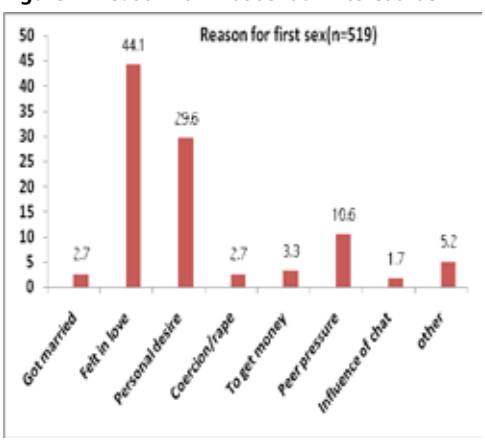


Figure 2: Reason for first sexual intercourse



Sexual history of students by sexual partners in the past 12 months
330 students who ever had sexual intercourse in the past 12 months, two in three; 220(66.7%) have reported to have sexual intercourse with their regular boy/girl friends in 12 months preceding the survey. Similarly 45.2% and 62.7% of students who have had sexual intercourse with in the one year preceding the survey did so with commercial and non regular non commercial partners' respectively.(Table:1)

Table 1: Sex partners of students by type

Type of Sexual Partner (n=330)	Frequency	Percent
Commercial	149	45.2
Regular non commercial	220	66.7
Non Regular non commercial	207	62.7

Condom use with Sexual Partners
149 students who committed sex in exchange for money in the past one year, a quarter of students; 37(24.8%), did so without condom **.**The frequency of condom use among 112(75.2%) students who reported to have used condom with commercial partners was also assessed. Consistent condom use with commercial partners was reported by 47(41.9%) of students who used condom with commercial partners. In nearly half of them; 53 (47.3%) condom uses was inconsistent. Condom non use was common with both regular and non regular non commercial partners. It was 29.5% and 27.5% respectively. Condom use pattern was inconsistent with all types of partners.

Table 2: Are university students different from high school students in high risk behavior, Hawassa 2011.

Variables	University	High School	Proportion difference	P-Value
Ever Sex	36.9%	37.5%	-0.6%	0.8
Ever used condom	69%	65.5%	3.9%	0.4

MSP (Past 12 months)	10.4%	11.7%	-1.3%	0.5
Commercial sex	6.3%	6.7%	-0.4%	0.8
Ever had STI	50%	48%	2%	0.5%
Sex in the past 1 yr	22.6%	15.8%	6.8%	0.01
Embarrassed to buy condom	2.9%	12.8%	-9.8%	0.0024
Risk perception	27.9	34	-6.1%	0.037
Alcohol (Past 1 month)	17.2%	12.8%	4.4%	0.06
Smoked (Past 1 month)	8.5%	4.4%	4.1%	0.016
Chat (Past 1 month)	12.6%	6%	6.6%	0.0014
Shisha (Past 1 month)	4.3%	5.4%	-1.1%	0.40
Misconceptions				
Mosquito Bite	5%	8.7%	-3.7%	0.02
AIDS Curable	15.4%	23.9%	-8.5%	0.0005

Factors contributing for the non-condom use, government Institution; (AOR= 4.457, P-value =0.042), trusting the partner (AOR= 10.5, P=0.035), Sex after Alcohol (AOR= 4.8, P=0.001) and HIV Risk perception (AOR= 0.563, P= 0.013). This shows that the non-condom use is higher in government institutions, trusting partners, sex after alcohol and non-condom use is lower in students who perceive as they are at risk of HIV.

Discussion

This study tried to assess the HIV related high risk behavior of secondary and tertiary level students in the context of having multiple sexual partner, having sex with commercial sex workers and condom non-use especially for the condom non-use for analytical part. 40% of males and 28.6% of female students have ever had sexual intercourse which is lower when compared to the study in Uganda university, 2010 (63%male and 51% females' students). The possible reason may be the setting of this study is both secondary (majority of students live with the direct control of their family) and tertiary level students but that of Uganda's study is only at the university students. The commonest time of sexual debut is secondary level that is 64.7% of students initiated sex at high school level. The first partner of students while initiating sex is regular friends in 51.9% which is lower than the study in china (85.4%) and commercial sex workers in 6.5% of students which is consistent with the study in Addis Ababa in 2007 (6%).

21.4% (330) had sex in one year preceding the survey. Of these, 9.7% (149) had commercial sex which is comparable to study in Gondar (11.6%) in 2007. In a year preceding the survey, 34.8% of students had multiple sexual partner that is higher than the study in China University (17.6%) in 2009. The reason might be in the case of these study students who are practicing sex at high school (secondary) level might not have a fixed regular partner as they are under the control of their family and perhaps mental maturity for decision.

1 in 5 (20%) of students who committed paid sex (both pay for sex and to be paid) did so without condom. Besides, nearly half, 47.3% of students', who committed paid sex, condom use was inconsistent. Moreover, 54.3% of students, who are practicing sex, did not use condom which is comparable to Gondar study (54.8%) in 2007.

Nearly 1/3rd of students perceive as they are at risk of HIV/AIDS which is higher when compared to Kenyan (10%) and other the Ethiopian (19%) studies in 2009. In the case of misconception: 22.2% and 5.7% of students perceive that AIDS is curable and HIV can transmitted by mosquito bite respectively which is comparable to the Gondar study (3.6%) in 2007. On the other hand, 27.3% of students do not believe condom prevents HIV which is low when compared to Kenyan (60.3%) study in 2009. This might be due to the difference in time and repeated health promotion and diseases prevention activities may bring changes in the misperception of condom.

When compared to the HIV related high risk sexual behavior of secondary and tertiary level students, there is no statistically significant difference in condom use, multiple sexual partners one year preceding the survey, sex with commercial sex workers and ever seeing sexually transmitted infections symptoms. This finding is indicating that the increase in educational level will have no relation with the decrease in high risk sexual behavior.

The odds in the government institution are 4.5 times higher in non-condom use than being private institutions. This might be due to the fact that students in the private institutions will have better socioeconomic status for buying and negotiating about condom use. The other factor is partner trust; in this study the odds of students who trust their partner are 10.5 times higher not to use condom than those who doesn't trust. This is due to misunderstanding of students who trust their sex partner without having evidence of HIV free test result. Sex after alcohol use is the other factor that significantly affects condom use. The odds of sex after alcohol are 4.8 times higher in non-condom use than those having sex without alcohol. This is due to the fact that drinking alcohol affects the emotional status of both partners for condom negotiation these findings are consistent with the findings of US in 2009 and WHO done in 2005.

Conclusion

This study indicating that students are engaged in risky sexual activities with the extent of involvement is not different between secondary and tertiary level students. Condom non use is common with all types of partners; when used, it was inconsistent. Moreover, misconception is prevalent among students in general and significantly among high school students besides to their very low risk perception which is significantly lower among high school students. Partner trust, sex after alcohol and HIV risk perception is related to non use of condom.

Recommendations

- Misconception is especially higher among high school students. Therefore, interventions should be geared to address them especially at high school.
- Tailored behavioral change interventions to increase the correct and consistent use of condoms should be initiated.
- University & health bureau should work for awareness creation on HIV risk perception.
- Further study to identify the reason why condom non-use is different across institutions.

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