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## Original article

# The risk of sexual behavior and practice among Ethiopian college students

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#### Abstract

**Background:** Neglecting the sexual and reproductive health of the youth may potentially lead to high social and economic costs, both at present and in the future. The aim of this study was to assess the risk of sexual behavior and practice of Public college students in Harar, Ethiopia.

**Methods:** A cross-sectional study was conducted across two public colleges in Harar, Ethiopia in 2019. 385 participants provided information on their socio-demographic characteristics, sexual behavior and practice, their risk perception towards HIV/AIDS, and STIs through a self-administered questionnaire. SPSS version 20 was used for data analysis.

**Results:** The age range of the respondents was between 17 and 31. 207 out of 385 subjects were female. Around half 167 (43.4%) of the respondents were sexually active. About 33.5% of the respondents had experienced premarital sex before the age of 18. 52.2% of the participants had sexual activity with multiple partners. Among 31 (8.1%) of them developed a pregnancy; all pregnancies were unplanned and ended up with abortion, however.

**Conclusion:** Significant numbers of students are assumed to have risky sexual behavior, which may increase an individual's risk of acquiring HIV/ AIDS. Accordingly, it is imperative that college students practice healthy behavioral modification through the use of such available services as condoms and contraceptives.

Keywords: Sexual activities, Sex behavior, Behaviors, Ethiopia, Public Health Student

### Int<u>roduction</u>

The risky sexual behavior of youths can supposedly be defined in a number of ways. The most widely used definition for risky sexual behavior could be: unprotected vaginal, oral, or anal intercourse (1). According to the definition provided by the Center for Disease Control and Prevention (CDC), risky sexual behavior has been defined as a behavior that increases one's risk of contracting sexually transmitted diseases (STIs) and experiencing unintended pregnancies (2).

It is generally assumed that individuals involved in such risky sexual behavior are more vulnerable to STIs including Human Immunodeficiency Virus (HIV) infection. Besides, they may confront unplanned pregnancies and abortions (3). In addition, those using condom during the sexual intercourse may have high perception, and those who do not use it during the sexual intercourse may have low perception. It is also presumed that perceived peer sexual norms are the significant determinants for the spread of STI, HIV/AIDS through the impact of the permissive sexual norms on the sexual behavior (4).

According to an estimate by the world health organization (WHO), out of expected 333 million new cases of STIs, excluding HIV, that occur in the world every year, over 100 million occur among youths below the age of 25 (5). In sub-Saharan Africa, about 10-20% of sexually active youths are estimated to suffer from STIs. However, reports from different countries indicate that young people are the main victims of HIV/AIDS worldwide. Each day, nearly 6,000 young people aged 15-24 get infected with the virus (5, 6).

Ethiopia is a developing country with a demographic profile dominated by young population,

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within the ages of 15-25, constituting one third of the total population. There is no wonder that the HIV/AIDS epidemic is assumed as a major public health challenge there (6, 7). It is widely believed that unintended pregnancy is one of the major reproductive health problems with all its adverse outcomes (8). It is also apparent that university and college students are fully aware of the risks of HIV as well as the preventive mechanisms; nonetheless, evidence shows that they are usually engaged in high-risk sexual behavior (9). University and college students are presumably exposed to a variety of risky sexual behaviors such as early sexual experience, multiple sexual partners, unprotected sex, the use of substances like alcohol or drugs, having sex with older partners, and non-regular partners such as commercial sex workers (1, 10).

It is axiomatic that neglecting the youth sexual and reproductive health may lead to high social and economic costs, both at present and in the future. Thus, a country's future economic, social, and political progress and stability depend on how well the sexual and reproductive needs of this group is addressed (11). There is also a dearth of adequate research studies investigating the impacts of such risky sexual behavior. Therefore, the aim of this study was to assess the risk perception and the unsafe sexual practice among students in Harar Health Science College as well as Harar Teacher Training Institute in Ethiopia. The findings of this study may shed light on the realities concerning risky sexual behavior in similar institutions in the country.

#### **Materials & Methods**

This cross-sectional study was conducted in Harar, Ethiopia, from March 2019 to April 2019. The ethical clearance for the implementation of the research was obtained from Harar Health Science College research committee (ethic number: ERC 0218/2019). All the study participants were informed about the purpose of the study, and they were given full right to participate in the study or not. The data collection phase commenced after the consents were taken from the participants. The researchers made sure that there was no disclosure of any names of the participants.

The sample size was calculated 385 by single population proportion formula with the following assumptions- the prevalence of unsafe sex taken from



previous study in Ethiopia is 65% (12), with marginal error of 5%, confidence level of 95%, and 10% .

There are three public colleges in Harar. Two public colleges were selected by random sampling technique (lottery method). The calculated sample size was proportionally allocated to HHSC (n= 274) and HTTI (n= 111), respectively, and also proportionally allocated to department and class year, the study unit was selected using simple random sampling. The proportionate allocation formula  $\mathbf{n}_{j} = \frac{\mathbf{n}}{\mathbf{N}} \mathbf{N}_{j}$ 

The participants provided information on sociodemographic characteristics, sexual behavior and practice, and risk perception towards HIV/AIDS and The information on socio-demographic STIs. characteristics included age, sex, year of study, marital status, and living area /residence. A self-administered questionnaire was prepared in English and translated into the local language for measuring sexual behavior and practice, and the risk perception towards HIV/AIDS and STIs. In this study, a total number of 385 questionnaires were gathered and checked for completeness afterwards. SPSS version 20 was used for data processing and analysis. The data were also checked in terms of completeness and consistency.

#### Results

Out of 385 subjects enrolled, all of them were interviewed, which made response rate 100%. The age of the respondents ranged from 17 to 31, and the majority of them were between 22 - 26 years of age. More than half, 207 (53.8 %) of the participants, were female. Regarding the year of studies, the majority of the respondents were in the 3rd year, 153 (39.7%). Also, the majority of the respondents, 315 (81.8%), were from urban areas. The majority of the respondents were single, 319 (82.9%) therefore more than half, 265 (68.8%), of the students had boy /girl / friends. Almost near half, 167 (43.3%), of the respondents were sexually active (Table 1).

Table 2 has shown sexual behavior and practice of 167 students that they started doing sexual intercourse. Ninety-five of the respondents reported that they started doing sexual intercourse between ages 19-22. They also reported that their first sexual intercourse was with their boy/girl friends, 64 (34.7%). Around 50 (29.9%) of those reported received replies/ exchange/ for having their sexual intercourse and the majority of

those, 35 (70%), received money for school fee / payment, house payment, and others. Only 15 (30%) of those had received gift for having their sexual intercourse. They declared that they did not drink alcohol, 109 (29.6%), and that they used contraceptive during your first sexual intercourse, 79 (58.1 %). The most contraceptive used was condom, 69 (71.1%). Among 167 sexual active women, 31 (18.6%) had developed pregnancies. Among 31 (8.1%) of those who had developed pregnancies, all were unplanned and ended up with abortion.

Table 1: Characteristics of Public College students in Harar, Ethiopia, 2019 (n=385)

Variables	Number	%
Age group (years)		
17 – 21	215	55.8
22 - 26	159	41.3
27 – 31	11	2.9
Sex		
Females	207	53.8
Males	177	46.2
Year of study		
1 <sup>st</sup> year	87	22.6
2 <sup>nd</sup> year	122	31.7
3 <sup>rd</sup> year	153	39.7
4 <sup>th</sup> year	19	4.9
5 <sup>th</sup> year	4	1.1
Marital Status		
Single	319	82.9
Married	56	14.5
Divorce	7	1.8
Widowed	3	0.8
Living area /residence		
Urban	315	81.8
Rural	70	18.2
Have boy /girl fried		
Yes	265	68.8
No	120	31.2
How many boy/Girl friend		
One	184	47.8
Two	49	12.7
Three	15	3.9
Above three	17	4.4
No boy/girl Friend	120	31.2
Have you ever sexual intercourse		
Yes	167	43.4
No	218	56.6

Table 2: Sexual behavior and practice of Public College students who have ever sexual intercourse in Harar, Ethiopia, 2019 (n=167)

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Variables	Number	Percent (%)	
Age of first sexual intercourse (years)			
14 - 18	56	33.5	
19 - 22	95	56.9	
23 - 26	16	9.6	
From whom you had your first sexual intercourse			
With relatives	64	38.3	
With my boy/girl friend	58	34.7	
With my husband	39	23.35	
With my teacher	4	2.4	
With unknown person	2	1.2	
Do you drink alcohol during your first sexual intercourse			
Yes	58	34.7	
No	109	65.3	
Did you or your partner had use contraceptive during your			
first sexual intercourse			
Yes	97 50	58.1	
No	70	41.9	
Have you receive replies/exchange for having sexual			
intercourse			
Yes	50	29.9	
No	72	43.1	
I don't know	45	27.0	

Among 385 students, 41 (10.6%) and 31 (8.1%) of the respondents declared that they had perceived the high risk of HIV/AIDS and STIs, respectively, while 35 (9.1%) and 60 (15.6%) of the respondents reported that they had perceived very low and no risk of HIV/AIDS and STIs, respectively.

#### Discussion

This study revealed that 43.4% of the respondents were sexually active. This finding is more than what they had found in Jimma and Haramaya University, in which (26.9%) and (33.5%) of the students had sexual intercourse, respectively (11, 13). This disparity could partly be attributed to the difference in the study time, the study design, and also the sample size.

In this study, about 33.53% of the respondents had experienced premarital sex before the age of 18. The finding of this study is lower than that of the study conducted among male college students in Nepal, demonstrating that about 63.7% of the students had sex before the age of 18 (14, 15). This could be attributed



to the difference in awareness and cultural values of the respondents towards the disadvantage of premarital sex.

The study also found that the use of condoms at the time of intercourse was about 71.1%. This finding is greater than that of the study conducted in Jimma University, demonstrating that 69.1% of the students used condoms (11). Another study conducted in Uganda University revealed that 50% of students used condoms. (16). This disparity could also be attributed to the difference in the study time, the study design, and also the sample size.

In this study, 52.2% of the study participants had more than one sexual partner. This result is higher than the findings of the studies conducted in Haramaya University, 11.5% (13), Jimma University, 28.3% (12), and Uganda University 24.0% (16). These differences could be due to the differences in the levels of awareness on the disadvantages of having multiple sexual partners and also lack of youth reproductive health services.

Moreover, the study revealed that 34.7% of the participants used alcohol. This finding is lower than the finding of a study done in Haramaya University, in which 41.7% of the students used alcohol (15). This could be due to the limited number of bars and coffee shops around the study area.

One of the riskiest ways for acquiring HIV/AIDS and STIs was through having sexual intercourse with prostitutes. In this study, 13 (3.4%) of the participants had their first sex with commercial sex worker (prostitute), which is lower than the result found by the study done in Haramaya University, in which 16.3% of the participants had their first sex with commercial sex workers (13). This may be due to the limited number of bars, coffee houses, and commercial sex workers around the study area.

#### Conclusion

Even though the assessment of risky sexual behavior is somewhat challenging, particularly when adolescents and young adults are involved, it appears that this is the only available window to assess the risky sexual behavior in the study area. It is assumed that a significant number of students have risky sexual behavior, which may increase their risk of acquiring HIV/ AIDS. Unless appropriate age and institutional targeted interventions exist, certain behaviors can place the college students at greater risk of HIV infection as well as sexually-transmitted diseases. Thus, colleges should ensure healthy behavioral modifications through the existing necessary services such as condoms and contraceptives.

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### **Conflicts of Interest**

The authors declare no competing interests.

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