

Assessment of Risky Sexual Behaviors and Associated Risk Factors among Students of Arsi University, Ethiopia

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ABSTRACT

Background: Risky sexual behavior remains a critical health concern among the general population of Ethiopia. The occurrence of risky sexual behaviors and associated factors for HIV infections is the core of sexuality matters in adolescents and youths. The aim of this study was to assess the risky sexual behavior among students of Arsi University.

Methods: A cross sectional institutional based study among Arsi University students to assess risky sexual behavior. Six hundred twenty two randomly selected students were included in the study from three colleges. Structured self-administered questionnaire was used to collect information. Data was entered to Epi-enfo version 7 and analyzed using SPSS version 21.

Results: A total of 622 students were included in the study. About 261 (72.2%) students had sexual intercourse previously, and the mean age at first sexual intercourse was 18.6 ± 0.122 . Among the sexually active students, 175 (67%) used condom during sexual intercourse. Students who wore fashion clothes, chewing chat and prefer premarital sex were more likely to use condom inconsistently.

Conclusion and recommendation: Almost half of the study participants had been engaged in sexual intercourse and the level of consistent condom use was low. Therefore, there is a need to enhance the awareness of students about the effect of addiction and other potential factors on developing risky sexual behavior.

Keywords: Risky sexual behaviors; Students; Arsi university; Ethiopia

BACKGROUND

Risky sexual behaviours are behaviours which include having two or more sexual partners, inconsistent condom use with new partners and having sex with commercial sex worker. Those behaviours could lead to unwanted health consequences, such as unwanted pregnancy, sexually transmitted diseases and psychological trauma [1,2]. Majority of University students are in their adolescence age and they are vulnerable for being engaged in different risky sexually activities as the adolescence period for many young people is characterized by greater amounts of experimentation, partner change, and risk-taking, than in later years [3].

The sexual behaviour patterns are changing worldwide with practices like later marriage, premarital sex and multiple sex partners. These changes in sexual behaviours are more prevalent among men than in women. The developing countries are at more risk of HIV infection as these changes in sexual behaviours are more common among them [4]. Similarly, low condom usage has further worsened the situation in many developing countries [5].

Universities are main sites of young generations which are at high risk of practicing risky sexual behaviours. Many studies done among University students showed that students practice risky sexual behaviours [6,7]. Study from Jimma Universities had reported that 26.9% of the students had sexual intercourse and 28.3% had multiple sexual partners [8]. The majority of students

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Received date: May 20, 2020; **Accepted date:** June 03, 2020; **Published date:** June 10, 2020

Citation: Segni MT, Degefa S (2020) Assessment of Risky Sexual Behaviors and Associated Risk Factors among Students of Arsi University, Ethiopia. *J Antivir Antiretrovir*.12:199. DOI: 10.35248/1948-5964.20.12.199

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in tertiary institutions are single, young adults who easily fall prey to excitement coupled with the liberal nature of campus life that predisposes them to high risky sexual behaviour [9].

Arsi University is newly established University in the old town of Asella. The University hosts more than 12,000 young age students. Following the establishment of the University, considerably high number of night clubs, substance selling shops locally called as “chat bet”, cinema houses and bars. This new environment could influence the behaviour of the students as they are in their adolescent age. Despite the fact that there are many students in the University confronting those challenging environment, there is no study done to assess the status of risky sexual behaviour and the associated risk factors among students of Arsi University. Therefore, the aim of this study was to determine the prevalence of risky Sexual behaviours amongst regular undergraduate students in Arsi University.

METHODOLOGY

Study area, design and period

A cross sectional institutional based study was done in Arsi University to assess the risky sexual behaviour among students of Arsi University. The study was conducted among students from three college of Arsi University; College of Health sciences, College of Agriculture, College of Business and Economics. Arsi University is a newly established higher educational institution with six colleges hosting a total of 12,000 students. Arsi University is found in Asella Town which is located 175 km south east from the capital city, Addis Ababa. The town has eight kebeles (small administrative unities in Ethiopia) with an estimated total population of 101,000. The study was conducted from March-April 2017.

Sample size and sampling procedure

All regular undergraduate students of Arsi University were the source population. Three colleges were randomly selected from the six colleges found in the University considering that the environmental and social characteristics among the colleges are uniform. Six hundred twenty two students selected by strata sampling procedure from first year and second year regular students of the three randomly selected colleges; health Sciences, Agriculture and Business and Economics.

A sample size was calculated using a single population proportion formula by assuming 45.2% prevalence of risky sexual behaviors, confidence interval (CI) of 95% and 5% Margin of error [10].

$$N = Z^2 pq / D^2$$

$$N = 1.96 \times 1.96 \times 0.452 \times (1-0.452) / 0.05^2 = 378$$

By considering the design effect, total sample size was estimated to be 622. The total sample size was assigned to each stratum proportionally and study subjects were randomly selected using systematic random sampling from the sampling frame.

Operational definition

Risky sexual behavior: Risky sexual behavior in the present study was defined as practicing inconsistent condom use.

Data processing and analysis

Data were entered into Epi-info version 7 and then exported to SPSS version 21 to analyze the data. Descriptive statistics was computed to determine the level of risky sexual behaviours and logistic regression was employed to see associated factor with others.

Ethical consideration

Ethical clearance was obtained from the ethical review committee of College of Health sciences, Arsi University. Informed written consent was obtained from each participant prior to inclusion. All records were coded to assure confidentiality. Data were recorded anonymously during data processing and analysis.

RESULTS

Socio-demographic characteristics of the respondents

A total of 622 students participated in the study. The age range of participants was from 17-40 years, and the mean age was 20.9(S.E \pm 0.094, 95% CI) years. Majority of the participants (51.3%), were <20 years. Three hundred fifty six (57.2%) of the participants were males and 266 (42.8%) were females. Among the respondents five hundred ninety four (95.5%) participants were single and twenty eight (4.5%) participants were married. Two hundred sixty four (42.4) participants were Orthodox followed by three hundred thirty seven (38.1%) participants who were Muslim. Three hundred fifty nine (57.7%) were first year students, and Two hundred sixty three (42.3%) were second year students (Table 1).

Table 1: Socio demographic characteristics of respondents of Arsi University, 2017.

| Variables | Frequency | Percentage |
|----------------|-----------|------------|
| Sex | | |
| Male | 356 | 57.2 |
| Female | 266 | 42.8 |
| Marital status | | |
| Married | 28 | 4.5 |
| Single | 594 | 95.5 |
| Religion | | |
| Muslim | 237 | 38.1 |
| Orthodox | 264 | 42.4 |

| | | |
|-------------------|-----|--------|
| Protestant | 111 | 17.8 |
| Others | 10 | 1.6 |
| Ethnicity | | |
| Oromo | 348 | 55.9 |
| Amhara | 163 | 26.2 |
| Gurage | 45 | 7.2 |
| Tigre | 42 | 6.8 |
| Others | 24 | 3.9 |
| Educational level | | |
| 1st year | 359 | 57.70% |
| 2nd year | 263 | 42.30% |
| Income sources | | |
| No income | 34 | 5.5 |
| From Family | 563 | 90.5 |
| From Friends | 25 | 4 |

Personal, social and environmental factors contributing to risky sexual behavior

Among all study participants, 261(77.2%) reported to have had sexual experience at the time of data collection and the mean age at first sexual intercourse was 18.6 (± SD=0.122, 95% CI). Eighty eight (33.7%) students reported to be engaged in sexual practice through peer pressure. Eighty six (33%) of those sexually active students hadn't used condom during the time of sexual intercourse. Forty nine (57.6%) students reported that they didn't use condom because their religion doesn't support utilizing condom.

Two hundred sixty one (77.2%) study participants had sexual partner in which 107(41%) of them had multiple sexual partners. Seventy three (28%) of the participants had the habit of drinking alcohol and 53 (72.6%) of them had reported to have had sexual intercourse immediately after drinking Alcohol with non-regular partner. Twenty nine (4.7%) students reported that they have used addictive substance and 44 (7.1%) participants had the habit of wearing pornographic cloths. A total of 496 (79.7%) participants had reported that they have been tested for HIV and 15(3%) of them were positive for HIV. Ninety one (14.6%) participants had visited local addicting substance (Chat) selling house regularly; 79 (12.7%) participants went to night club. In which 32 (42.7%) of them went to night club for looking opposite sex partner (Table 2).

Table 2: Personal factors of respondents of Arsi University.

| Variables | Frequency | Percentage |
|-----------|-----------|------------|
|-----------|-----------|------------|

| | | |
|---|-----|------|
| Ever had sexual intercourse | | |
| No | 77 | 22.8 |
| Yes | 261 | 77.2 |
| Number of sexual partners | | |
| One | 154 | 59 |
| Two | 107 | 41 |
| Consistent Condom utilization | | |
| No | 86 | 33 |
| Yes | 175 | 67 |
| Reasons for not utilizing condom | | |
| Religion doesn't support | 49 | 57.6 |
| Doesn't protect from HIV | 17 | 20 |
| Not available | 7 | 8.2 |
| My partner opposes | 9 | 10.6 |
| Not affordable | 3 | 3.5 |
| Having the habit of drinking Alcohol | | |
| No | 188 | 72 |
| Yes | 73 | 28 |
| Having the habit of chewing chat (local addictive substance) | | |
| No | 459 | 73.8 |
| Yes | 163 | 26.2 |
| Tested for HIV before | | |
| No | 126 | 20.3 |
| Yes | 496 | 79.7 |
| HIV test result | | |
| Positive | 15 | 3 |
| Negative | 481 | 97 |
| Availability of Alcohol selling house around student residence* | | |
| No | 443 | 71.2 |
| Yes | 179 | 28.8 |
| Having habit of visiting night club | | |
| No | 543 | 87.3 |

| | | |
|-----|----|------|
| Yes | 79 | 12.7 |
|-----|----|------|

*Students of different colleges live in different sites of the town

Factors associated with risky sexual behavior among Arsi University students

The bivariate analysis showed that, Gender (p=0.038), marital status (p=0.005), using fashion cloths (p<0.001), peer pressure (p=0.002), having the habit of chewing chat (0.004) and preferring premarital sex (p<0.001) had statistically significant association with having risky sexual behaviour.

Students who wore fashion cloths were about three times more likely to use condom inconsistently than those who used didn't wear fashion cloths (AOR=2.633; 95% C: (1.355, 5.116). Students who had the habit of chewing chat were about two times more likely to use condom inconsistently than those who had no habit of chewing chat. (AOR=2.195; 95% CI: 1.188, 4.057). Students who prefer premarital sex were about five times more likely to use condom inconsistently than those who didn't preferred premarital sex (Table 3).

Table 3: Multivariate logistic regression analysis for the association between risk factors and risky sexual behavior among Arsi university students, 2017.

| Variables | Inconsistent condom use | | COR (95%) CI | AOR (95%) CI | p value | |
|--|-------------------------|----------|-----------------|--------------------|--------------------|--------|
| | Yes N (%) | No N (%) | | | | |
| Sex | Male | 52(28.9) | 128(71.1) | 0.562(0.325-0.970) | 0.627(0.326-1.205) | 0.161 |
| | Female | 34(42.0) | 47(58.0) | 1 | 1 | |
| Married | Married | 16(57.1) | 12(42.9) | 3.105(1.396-6.904) | 1.147(0.427-3.080) | 0.786 |
| | Single | 70(30.0) | 163(70.0) | 1 | 1 | |
| Wearing Fashion cloths | Yes | 59(44.4) | 74(55.6) | 2.982(1.729-5.145) | 2.633(1.355-5.116) | 0.004* |
| | No | 27(21.1) | 101(78.9) | 1 | 1 | |
| Watching audio visual film or cinema | Yes | 69(39.0) | 108(61.0) | 2.518(1.365-4.643) | 1.116(0.482-2.584) | 0.798 |
| | No | 17(20.2) | 67(79.8) | 1 | 1 | |
| Started sexual practice due to peer pressure | Yes | 68(39.5) | 104(60.5) | 2.543(1.393-4.640) | 1.327(0.596-2.951) | 0.488 |
| | No | 18(20.5) | 70(79.5) | 1 | 1 | |

| | | | | | |
|------------------------------|-----|----------|-----------|--------------------|---------------------|
| Having chat chewing habit of | Yes | 43(26.4) | 120(73.6) | 2.182(1.285-3.705) | 2.195(1.188-4.057) |
| | No | 86(33.0) | 175(67.0) | 1 | 1 |
| Preference premarital sex | Yes | 44(59.5) | 30(40.5) | 5.063(2.843-9.019) | 5.405(2.692-10.850) |
| | No | 42(22.5) | 145(77.5) | 1 | 1 |

Note: * Statistically significant at p value<0.05.

DISCUSSION

From the total participants 77.2% were sexually active; this number was higher than the report from Madawalabu University [4]. There was high (33%) inconsistency utilization of condom among the students of Arsi University. This high inconsistency condom utilization was due to many factors in which condom use being prohibited by their religion was the most common reasons. The percentage of students who used condom inconsistently was lower than the finding from Gojjam [11]. Having multiple sexual partners is other risky sexual behaviour among university students [8]. In the current study, 107(41%) participants had multiple sexual partners. This number was similar to what has been reported from Bahirdar University, where 45.2% of the study participants had more than one sexual partner and higher than the report from Wolaita Sodo University in which 31 (22.3%) of the study participants had multiple sexual partner [6,10].

Having risky sexual behaviour could develop due to different personal, social and environmental factors [1]. In this study, students who wore fashion clothes and addicted to chat had higher likelihood of having risky sexual behaviour in which students who wore fashion cloths were about three times more likely to use condom inconsistently than those who didn't wear fashion cloths (AOR=2.633; 95% C: (1.355, 5.116). The number of student who wore fashion clothes in Arsi University was higher than those in Bahir Dar University, 34.8% [10]. More than a quarter of the participants had the habit of chewing chat and 36.2% of them reported to had sexual intercourse immediately after chewing chat. Students who had the habit of chewing chat were about two times more likely to use condom inconsistently than those who had no habit of chewing chat. (AOR=2.195; 95% CI: 1.188, 4.057). The finding is slightly higher than the finding of a similar study done in Axum University, where 68 (23%) of the substance user had practiced sex after taking substance [12].

University students are vulnerable for environmental factors around their campus which could lead them to have risky sexual behaviours. Those environmental factors include, night clubs, addictive substance selling houses, bars and presence of commercial sex workers. In our study, 79 (12.7%) of the participants went to night club of them 32 (42.7%) participants went to look for sexual partner. This finding was almost similar to the study finding in Bahirdar University, which showed that the proportion of attending night clubs was 15.8% [10].

The other potential risk factors for inconsistency condom use and other risky sexual behaviours could be addiction to Alcohol, being engaged to sexual activities due to peer pressure and preference for premarital sex [5,13-15]. In this study, 73 (28%) students had the habit of drinking Alcohol and 53 (72.6%) of them had sexual intercourse immediately after drinking Alcohol with non-regular partner. Eighty eight (33.7%) participants engaged in sexual practice due to peer pressure and 74 (28.3%) of respondents preferred premarital sex. In this study, students who didn't prefer premarital sex were about five times more likely to use condom than those who preferred premarital sex (AOR=5.405; 95% CI : (2.692, 10.850). This finding was higher than the study finding done in-school youths of Shendi Town, where the proportion of condom use among participants who didn't prefer premarital sex were about two times more likely to use condom persistently than their counterpart [11].

One of the limitations of this study is as the study touches some sensitive area related to sexuality which is susceptible to social desirability.

CONCLUSION

Almost half of the study participants had been engaged in sexual intercourse and there was low level of persistent condom utilization. Higher inconsistency in condom utilization was reported from students who had the habit of chewing chat, wearing fashion clothes and preferred premarital sex. Therefore, the responsible body of the University has to design strategies which would help to reduce this high number of risky sexual behaviours among the student by enhancing the awareness of students about the effect of addiction and other potential factors on developing risky sexual behaviour.

DECLARATION

Acknowledgement

We would like to acknowledge the college of health science Arsi University for the technical and financial support. We would like also to extend our thanks to the participants.

Competing interests

All authors have declared that they have no competing interest.

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