



**HIV/AIDS AND UNIVERSITY STUDENTS: ASSESSMENT OF
 HIGH RISK SEXUAL BEHAVIOUR AND CONDOM UTILIZATION,
 UNIVERSITY OF GONDAR, NORTH WEST ETHIOPIA**

¹Abdrrahman Shemsu, ¹Zeryawkal Ergetie, ^{*2}Bayew Tsega

^{*1}Department of Pharmaceutical Analysis, School of Pharmacy, University of Gondar, Ethiopia.

²Department of Clinical Pharmacy, School of Pharmacy, University of Gondar, Ethiopia.

Abstract

High risk sexual behaviours are potentially linked to Human Immune Deficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) and other Sexually Transmitted Diseases (STDs). HIV/AIDS is unique in its devastating impact on the social, economic and demographic development. Condom use and sexual behavior changes have very significant effect in preventing HIV/AIDS and sexually transmitted infections (STIs). The objective of this study was to assess high–risk sexual behavior and pattern of condom utilization among students of University of Gondar (UOG). A cross-sectional study was used to assess sexual behavior and patterns of condom use. Data was collected using semi-structured questionnaire and the data analysis was made using Statistical Package for Social Sciences (SPSS) version 20.0. Out of the total respondent, 290(74.5%) reported to have ever had sexual intercourse and 99 (25.5%) never had it. The mean age of the respondents at the first sexual intercourse was 17.9 years for males and 17.2 years for females. Higher proportion (46.7%) of male respondents (had desire) and females (34.1%) (Falling in love) was their major reason to have their first intercourse. Out of 290 respondents, 84.5 % (82.6% males and 87.0% females) reported to have sexual intercourse within last 12 months. From the 167 male and 123 female respondents 151 (90.4%) males and 108 (87.8%) females reported to had ever used condom. Sixty four (38.3%) reported to have ever had sexual contact with commercial sex workers (CSWs), 59(92.2%) used condom, the rest 5 (7.8%) have never used condom with CSW. The study showed that most of UOG students are engage in high-risk sexual behavior as they are using condom inconsistently.

Keywords: HIV, AIDS, Sexually Transmitted Diseases.

Introduction

Today the term human sexual behavior sounds so familiar and is so widely used that it may be hard to imagine a time when it was unknown. After all, the human race has always consisted of two sexes and these have always felt drawn each other. Indeed men and women have always engaged in intimate

physical intercourse and thereby produced new life¹. The term sexual activity can refer both to acts involving two or more people, as in sexual intercourse, oral sex or mutual masturbation, and to the one person activity of masturbation².

Author for Correspondence:

Bayew Tsega,
 College of Medicine and Health Sciences,
 School of Pharmacy, University of Gondar,
 Post Box No. : 196, Ethiopia.
 Email ID: bayewtsega14@gmail.com

In some cultures sexual activity is considered acceptable only within marriage, although extramarital sex still takes place within such cultures. Some sexual activities are illegal either universally or in some countries, and some are considered against the norms of a society. For example, sexual activity with a minor is a criminal offense in many jurisdictions, as is sexual abuse of individuals in general for the purpose of this study, the term sexual behavior is defined as all actions and responses related to pleasure seeking. Sexual pleasure is the pleasure a person derives from any kind of sexual activity, most commonly through orgasm. The most common pleasurable sexual activities are masturbation and sexual intercourse.^{3,4}

Adolescent sexual behavior is influenced by a complex set of interaction of biology and genetics, individual perceptions, personality characteristics, and socio-cultural norms and values. Sexual thoughts, feelings, and behaviours, present throughout life, are often accentuated during adolescence. Puberty provides visible, undeniable evidence of physical maturity, obvious maleness or femaleness, and the ability to reproduce. The normal developmental task of establishing an adult sexual identity and the capacity for intimacy may be frustrated by the prolonged interval between attainments of reproductive maturity and social permission to express one's sexuality as an adult. Numerous surveys have suggested increased sexual experimentation by increasing numbers of teenagers at younger ages each year.⁵

Adolescents typically feel invulnerable and do not perceive themselves to be at risk. Adolescents may also hold negative beliefs about safer sex practices, for example, that condoms adversely affect sexual enjoyment. And negotiating safer sex practices with partners requires confidence and skill that adolescents often do not have in addition; it is difficult to persuade adolescents to practice abstinence if they have decided to be sexual active⁶.

Puberty and adolescence contribute to the incidence and clinical feature of STDs in the youth. During puberty genital maturation increase the capacity for intercourse and the internal genital tract becomes fully patent in both sexes allowing any acquired infection to spread. In females

oestrogenization decreases the susceptibility of the vulva and the anterior vagina to the most infection and alters vaginal flora and pH. Until several years after menarche, the squamocolumnar junction is located on the exposed vaginal surface of the cervix gradually progressing to the endocervical canal as thin columnar cells are transformed to layers of thick squamous cells. The exposed columnar epithelium cells area likely to be infected with gonorrhea or Chlamydia if there is contact with infected partners; the transition zone itself is susceptible to carcinogenic factor including various organisms. There is now good epidemiological evidence that early age of first intercourse correlates with more cancerous and cancerous changes to the cervix.⁷

HIV is primarily transmitted by sexual contact, by contact with blood or blood products, and from mother to child during gestation, delivery, or breast feeding. The prevalence and incidence of HIV is rising globally, and to date there are no treatments which can eradicate HIV from the body. Condom use is a critical element in a comprehensive, effective and sustainable approach to HIV prevention and treatment⁸. The male latex condom is the single most efficient available technology to reduce the sexual transmission of HIV and other sexually transmitted infections. Condoms are a key component of combination prevention strategies individuals can choose at different times in their lives to reduce their risks of sexual exposure to HIV.

Adolescent condom use is influenced by social and demographic characteristic, knowledge about reproductive health, and attitudes regarding condoms and insure of access and affordability behaviours patterns appear to differ according to gender, age, and educational level between students and non students and among non students depending on the employment status also appear to influence sexual behavior as do relation type material status⁹.

Most university students attend their educational program away from their parents, which they consider it 'freedom'. So they want to practice what they were not allowed to do while they were in the control of their family. Therefore, they start to seek pleasure by practicing, for instance, high risk sexual behavior.

Although a few attempts were made to study sexual behavior and pattern of condom utilization, comprehensive studies were not done on higher educational institutions in the area of condom utilization and assessment of sexual behavior in Ethiopia. Hence, the purpose of this study was to address sexual behavior and pattern of condom utilization among students of UOG.

Method

The study used a combination of quantitative and qualitative methods and primary (questionnaire) and secondary (books, articles) sources of data.

The study was conducted in UOG: Gondar College of Medicine and Health Sciences (GCMHS), Maraki and Tewodros campuses from April 10 to may15, 2012.

A cross sectional study was carried out using self-administered semi-structured questionnaire; that was conducted on regular undergraduate students of UOG on assessing their sexual behavior and pattern of condom utilization.

The number of study subjects was determined by the formula for estimation of single proportion

$$n = \frac{z^2 p (1-p)}{W}$$

$$n = \frac{1.962 \times 0.5 \times (1-0.5)}{0.052}$$

n=384.16 plus 15 subjects for allowance making the total number of study subjects= 400

Where, z= is the reliability coefficient for the desired confidence interval (CI), for 95% CI, z= 1.96, p= 0.5, which gives the maximum sample size for the desired CI, W= 5% or 0.05, which is desired degree of precision.

Data collection was conducted using self-administered semi-structured questionnaire that was written in English. The questionnaire developed for the study was pre-tested in the field to ensure that is clear and unambiguous and took no more than 15 minutes to fill the questionnaire was distributed by data collectors who were graduating pharmacy students with adequate know how of the subject matter among students of all campuses.

The collected data was analyzed using SPSS version 20.0. Tables and graphs summarized the results. The results were interpreted according to the objective of the study.

Results

A total of 400 questionnaires were distributed among students of UOG, out of which 389 students gave response where 11 students did not respond back, having 97.25% response rate. The average age of the study population was 20.05 years; 237 (60.9%) were male, and 152 (39.1%) were female students (Table 1).

Table No. 01: Socio-demographic characteristics of undergraduate students of University of Gondar, North West Ethiopia, April 10 to May15, 2012.

Personal data		Number (%)
Sex	Male	237 (60.9)
	Female	152 (39.1)
Religion	Orthodox	295 (75.8)
	Muslim	48 (12.3)
	Protestant	32 (8.2)
	Others	14 (3.7)
Campus	GCMHS	120 (30.8)
	Maraki	133 (34.2)
	Tewodros	136 (35.0)
Year of study	1 st year	105 (27.0)
	2 nd year	125 (37.1)
	3 rd year	131 (33.7)
	4 th year and above	28 (7.2)

Out of total 389 respondents 290 (74.5%) reported to have ever had sexual intercourse and the rest 99

(25.5%) never had sexual intercourse. Fourth year and above students have the highest proportion

(89.3%) of students with sexual experience and first year students have the lowest (54.2%) percentage. Out of the total 290 respondents, 236

(81.7%) orthodox, 19 (39.6%) Muslim, 25 (78.1%) protestant and other 10 (71.4%) have ever had sexual intercourse (Figure 1).

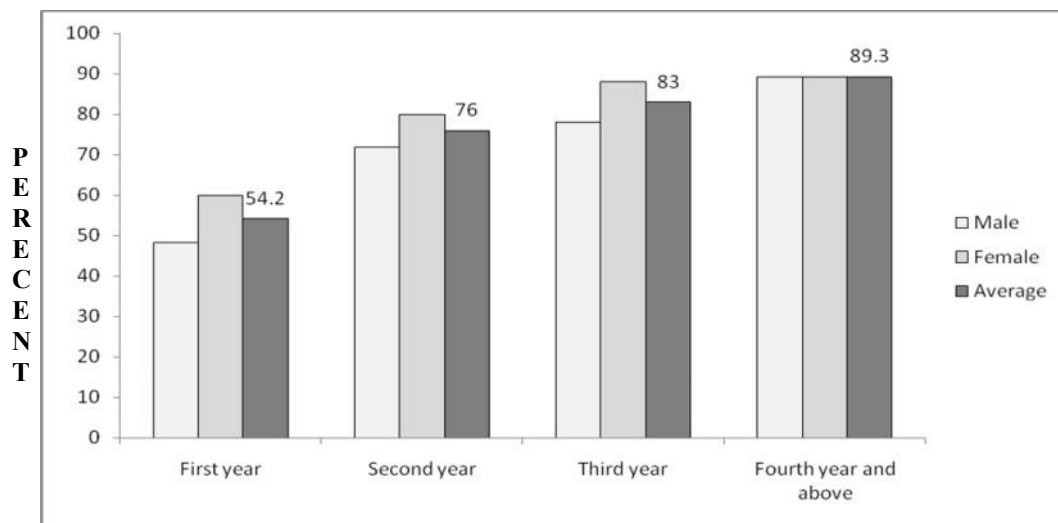


Fig. No. 01: The difference in sexual experience among the year of study in undergraduate students of University of Gondar, North West Ethiopia, April 10 to May15, 2012

The result revealed that most of Maraki students (81.2%) were reported as ever had sexual intercourse followed by Tewodros students (74.3%) and GCMHS students (67.5%) (Figure 2).

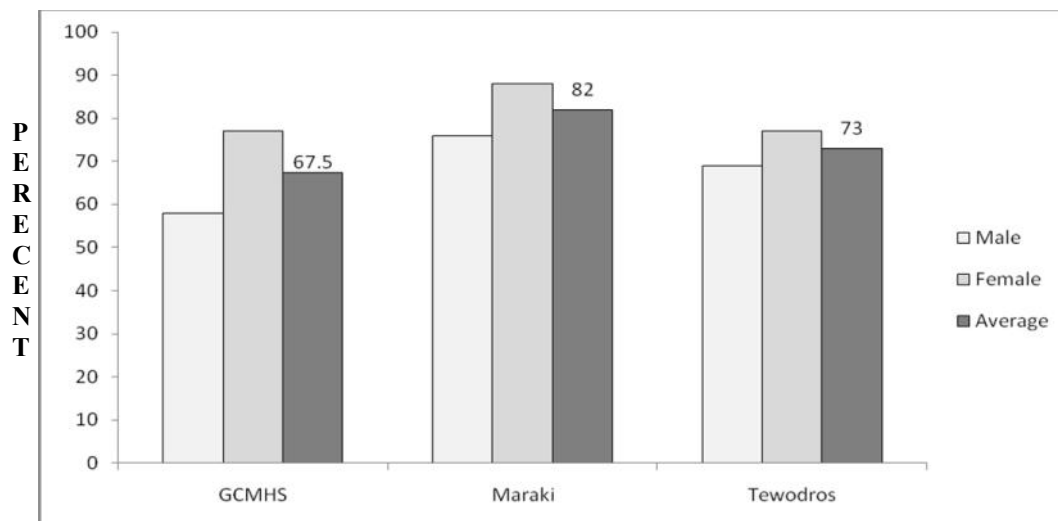


Fig. No. 02: The difference in sexual experience among the campuses in undergraduate students of University of Gondar, North West Ethiopia, April 10 to May15, 2012

The mean age of the respondents at the first sexual intercourse was 17.9 years for males and 17.2 years for females. The reasons why they made the first intercourse showed great difference between male and female respondents. Higher proportion (46.7%)

of male respondents made their first intercourse because they had desire. Falling in love was the major reason for females' first sexual intercourse accounting for 34.1% of the respondents (Table 2).

Table No. 02. Reasons of respondents for first sexual intercourse in undergraduate students of University of Gondar, North West Ethiopia, April 10 to May15, 2012

Reasons for the first intercourse	Sex	
	Male N (%)	Female N (%)
Fell in love	39 (23.3)	42 (34.1)
Had desire	78 (46.7)	35 (28.5)
Raped	0 (0.0)	3 (2.4)
To get money/gifts	0 (0.0)	12 (9.8)
Peer pressure	20 (12.0)	26 (21.1)
Drunk	30 (18.0)	5 (4.1)

Most of the respondents, who have ever had sexual intercourse, had different sexual partners at different times. The highest proportion of male and female respondents had three sexual partners in their life accounting for 24% and 31.7%,

respectively. Those male and female respondents who had one sexual partner were 16.8% and 13.8%, respectively. About 8% of males and 4% of females respondents had ten and above sexual partner (Table 3).

Table No. 03: distribution of number of people with whom the respondents had sexual intercourse in life in undergraduate students of University of Gondar, North West Ethiopia, April 10 to May15, 2012.

Total number of sexual partners in life	Sex	
	Male N (%)	Female N (%)
One	28 (16.8)	17 (13.8)
Two	20 (12.0)	28 (22.8)
Three	40 (24.0)	39 (31.7)
Four	35 (20.8)	26 (21.1)
Five to nine	30 (18.0)	8 (6.5)
Ten and above	14 (8.4)	5 (4.1)

Out of 290 respondents who have ever had sexual intercourse 84.5% (82.6% males and 87.0% females) reported to have sexual intercourse with in last 12 months from the day of questionnaire collection. Of these students 52 (31.1%) males and 39 (31.7%) females had 2 sexual partners during past 12months, 9 students (3.7%) had sexual relation with more than 5 people during the same period.

After analyzing the responses it has been found that 127 males and 101 females are sexually active during data collection period. Highest percentage (36.2%) of males reported that they are currently in sexual relation with campus students followed by

18.9% who have sexual contact with others outside the campus and 13.4% with CSWs. Out of females respondents, with three boyfriends accounted of 32.7%, those having boyfriend from campus students 35.6% and those having outside 16.8%.

From the total of 167 male and 123 female respondents 151 (90.4%) males and 108 (87.8%) females reported to had ever used condom. Out of these respondents 22 (14.6%) males and 8 (7.5%) females always used condom, which accounts 13.2% of males and 6.5% females with respect to respondents who have had sexual intercourse. One hundred twenty nine (85.4%) males and 100 (92.5%) females used condom inconsistently (Table 4).

Table No. 04: Distribution of respondents of on their experience on condom use at the first and last time of sexual contact in undergraduate students of University of Gondar, North West Ethiopia, April 10 to May15, 2012.

Condom use	Sex		
	Male N (%)	Female N (%)	
Used condom at the first time of sexual intercourse	Yes	41 (27.2)	9 (8.3)
	No	110 (72.8)	99 (91.7)
Used condom at the last time of sexual intercourse	Yes	123 (81.5)	80 (74.1)
	No	28 (18.5)	28 (25.9)

The result revealed that 72.8% male and 91.7% female didn't use condom at the first sexual intercourse and their improvement at the last sexual intercourse. From the total of respondents that had used condom 81.3%, mostly used condom reasons was for preventing STIs/HIV and avoid pregnancy.

There were different reasons for inconsistent use of condom: decrement in satisfaction/pleasure (47.2%), accounts the highest among the male respondents and female (39%) reported for not using condom inconsistently because their partner objected it (Table 5).

Table No. 05: Distribution of respondents based on reasons for not using condom consistently in undergraduate students of University of Gondar, North West Ethiopia, April 10 to May15, 2012.

Reasons for not using condom consistently	Sex	
	Male N (%)	Female N (%)
Unavailability	14 (11.4)	16 (16.0)
Partner objection	4 (3.2)	39 (39.0)
Ashamed to buy	29 (23.6)	27 (27.0)
Don't know how to use	6 (4.9)	3 (3.0)
Decrease satisfaction	58 (47.2)	7 (7.0)
Religion prohibited	8 (6.5)	5 (5.0)
Multiple response	4 (3.2)	3 (3.0)

Out of 167 male respondents who reported to have ever had sexual intercourse, 64 (38.3%) reported to have ever had sexual contact with CSW. Of these students, 59 (92.2%) used condom while having sexual intercourse with CSW. The rest 5 (7.8%)

have never used condom with CSW. Among respondents who used condom, 42 (71.2%) always used it, and the remaining 18 (28.8%) used condom CSW inconsistently (Table 6).

Tables No. 06: Distribution of respondents based on their year of study and experience of sexual intercourse with CSW in undergraduate students of University of Gondar, North West Ethiopia, April 10 to May15, 2012.

Year of study	Campus		
	GCMHS N (%)	Maraki N (%)	Tewodros N (%)
1	0(0)	2(16.7)	3(18.7)
2	2(12.5)	9(37.5)	5(38.5)
3	5(41.7)	16(69.6)	14(58.3)
4	4(57.1)	2(50.0)	2(40)

Discussion

This survey represents a study on assessment of high-risk sexual a behavior and condom utilization in UOG regular students; on assumption that the study site is a collection of students from different background, culture, religious, life style and societal status that could represent the general Ethiopian population.

The result revealed that most of Maraki students (81.2%) were reported as ever had sexual intercourse followed by Tewodros students (74.3%) and GCMHS students (67.5%). This could be probably due to students of Maraki are relatively less stressful in their academic issues compared to the two campuses. In addition, the proportion of male and female students in Maraki campus is relatively closer to each other.

Moreover, forth year and above students took the higher percentage in having sexual intercourse. This could again be due to the reason that they have not been under the control of their family for relatively longer time thereby having higher exposure to the potential risk areas.

A research conducted in Nigeria regarding the issue of sexual activity and HIV/AIDS revealed that the lowest median age that the first sexual intercourse was 15 year for men ¹⁰. Nevertheless, the result in this study indicates that the lowest sexual intercourse starting age is 17.2 for that of women. This deviation might be due to the fact Nigerians mature physically early in their age and perhaps they are more likely free from their parents control compared to the Ethiopians.

Regarding the median starting age of sexual intercourse, females were found to start earlier than males. This perhaps is due to peer pressure and with the aim of getting money or other support by having sex. The result in this study revealed that most of the respondents who have had sexual intercourse with CSW have use condom which was found to account 92.2%. This result agrees with a research conducted in Thailand in which men reported that they commonly use condoms when they engaged in sex with prostitutes, but condom use was lowest for men who were the most frequent partner. Again this result is in line with the result from a research conducted on sexual network and condom utilization in rural community around Jimma town showed that condom use with CSW (76%) was higher than with regular and non regular partner ¹¹. Another research among high school students in Kola Diba town revealed that 9.3% of the respondents had sex with CSW in the past six months ¹². According to this study, out of the total respondents who have ever had sexual intercourse, 84.5% of the respondents had sexual contact in the last 12 months. Despite this, a study on adolescent sexual behavior and HIV transmission in rural Uganda revealed that out of 861 adolescents. Thirty six percent reported having been sexually active in the past 12 months. This figure is by far much lesser and perhaps due to the study population being taken from rural area of Uganda who have less exposure to the potential risk areas compared to university students ¹³.

Another study having closer result with this research was conducted in Debre Birhan town to assess HIV risk perception and among youth in which the median age at first sexual intercourse was 18.1 years ¹⁴. In this study it is sited that among the sexually active respondents 83.2% male and 86.2% female respondents had sexual contact with more than one person. But the above research that was conducted in Debre Birhan town indicates 28.6% of the sexually active respondents reported that they have more than one sexual partner.

Limitation of the study

As this was questionnaire based research, there might have been wrong and unrealistic responses from uncooperative and negligent responders.

Conclusion and recommendation

Females were found to start sexual intercourse at the earlier age than males. Students in Maraki campus were more sexually active than students in the two campuses. On the other hand, students of GCMHS were least sexually active than the other two campuses. Regarding year of study, fourth year and above students were more sexually active.

The reason why most male had their sexual intercourse was their higher desire to have sex. On the other hand the reason why females engaged in sexual intercourse the first time was because of falling in love with somebody and it is sited that females exceed males by having with more than one sexual partner.

Regarding condom use, a higher proportion of males were found to use condom consistently than females. In line with this fact males exceed females in condom use at their first sexual intercourse. A perception that condom use decrease satisfaction was found to be the major reason for not using condom consistently in males while in females, partner objection is the leading factor for not using condom. There are also other barriers to consistent use of condoms. For some people, it is simply something that has not been part of their past behavior (culture) and starting something new is a great difficulty. Others may have been influenced by misinformation and misinterpretation which generates negative attitudes towards condoms use. Still others may be influenced by strong religious views or teachings which prohibit discussing about sexual activities and condom use.

Even if there is high percentage of condom use in those who had sexual contact with CSWs, significant number of respondents still do not use condom with CSWs.

Education which is aimed at changing risky behavior of students should be given. Female students should be advised not to engage in sexual relation for the purpose of getting gifts.

Attitudes brought by myths, misunderstandings and fears that threaten correct and consistent condom use, should be addressed. Religious leaders should be persuaded to accept condom use. Training of skilled and influential peer educators should be

prompted. Students going to CSWs should be advised to use condom.

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