

Sexual Experience and Their Correlates Among Jigjiga University Students, Eastern Ethiopia

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Abstract: A cross-sectional study was conducted from January to February 2011 with the objective of determining sexual experience and their correlates among unmarried students in Jigjiga University. Data was collected from 730 randomly selected unmarried students using structured questionnaire. Study revealed that 46.6% of students reported that they have had sexual experience. Watching pornographic films, having boy/girlfriend, peer pressure, having a few and many friends who ever had sexual intercourse and having positive/permissive attitude to teenage sex are variables which were significantly associated with sexual experience of students. The observation evidenced that, the problem of risky sexual behaviors was common among students in studied institution suggesting a need for identification of problems and implementation of effective prevention programs.

Key words: Sexual • Experience • Correlates • Students • University

INTRODUCTION

World health organization defines adolescent and youth as people between the age 10-19 and 15-24, respectively. At the beginning of the new millennium, about 1.7 billion people more than a quarter of the world's population were between the ages of 10 and 24, of which 86 percent living in less developing countries [1, 2]. These teenagers are tomorrow's parents. Sexual and reproductive health decisions they make today will affect the health and wellbeing of their countries and themselves [3].

Despite their numbers, adolescent and youth have not traditionally been considered a health priority since they have lower morbidity and mortality than older age groups [4].

The literature on African family formation suggests that age at marriage is rising in many African societies, especially among the better-educated and urban segments of the population. At the same time, it is believed that age at menarche is declining and that premarital adolescent sexual activity is increasing [5].

The EDHS 2005 showed, among women age 25-49, 32% had sexual intercourse before age 15, 65 % before age 18 and by age 25 most Ethiopian women have had sexual

intercourse. It also showed that among sexually active youth age 15-24 years old, 6% of women and 37% of men engaged in higher-risk sexual activity [6].

There is a hypothesis which states modern education exposes adolescents to different value systems and the school environment enables them to interact more with partners of the opposite sex. The removal of sexuality from the control of the community resulted in individual decisions about when, where, with whom and for what purpose to have sexual intercourse. This change can be attributed, at least in part, to the fact that educated young people now obtain knowledge from books which can be used to challenge the wisdom of the older generation. This hypothesis of a breakdown of traditional controls over sexuality is supported by a recent Kenyan survey in which more than 60 per cent of the respondents reported that they believed that the rules and norms restricting premarital and extramarital sex no longer applied today. An alternative theory is that unmarried teenagers use sexual relations and pregnancy to achieve certain goals. For example, sexual relations may produce economic benefits, or may be a step toward marriage. From this perspective, premarital pregnancies are a result of conscious, rational decisions [7, 8, 9].

Clearly, if this change in behavior is not compensated by an increase in premarital use of contraception and health education, it is expected that there will be an increase in the proportion of out-of-wedlock adolescent births, increase in HIV/AIDS prevalence, sexually transmitted infections as well as an increase in the prevalence of induced abortion. These problems finally result in both increase in maternal and child mortality [6, 8]. Thus, they should be given higher priority in the prevention and control of HIV/AIDS in Ethiopia [10, 11, 12].

Review of literatures suggests that many of the studies and theoretical frame works that have focused on predictors of sexual experience were limited to a narrow range of socio-demographic variables [13] and individual [14] which have small or modest effect on behaviors.

The problem of risky sexual behaviors may be common among Jigjiga university students since there is no any institution that provides reproductive health services such as condom provision and proper counseling services on reproductive health matters. Therefore this study will serve in understanding of factors that predispose Jigjiga university students to engage in risky sexual behaviors.

MATERIALS AND METHODS

Study Area and Period: Across sectional study was conducted from January to February 2011 in Jigjiga University. Jigjiga University is one of the ten newly established universities in the country. Currently the university has nine faculties, thirty seven departments and about 4885 regular students.

Study Design: An institutional based cross sectional study design was used to study sexual experience and their correlates of sexual experience among Jigjiga university students.

Source Population: The source populations for the study were all regular students attending academic learning at Jigjiga University in the year 2010/2011.

Study Population: The sample populations were 730 unmarried regular students of Jigjiga University in academic year 2010/2011.

Sample Size Determination: To determine the minimum number of students to be included in the study, the single population proportion formula was used, based on the assumption that:

- The level of confidence of 95%, which gives the percentile of the normal distribution, ($Z_{\alpha/2}=1.96$)
- The margin of error assumed to be 5%.
- The proportion of population possessing the major outcome (i.e. prevalence of sexual experience) was taken as 68.4% from previous survey done among AAU in 2008.
- Estimated non-response rate = 10%.
- Design effect of 2

Accordingly, the following formula given by Hollander and Wolfe (1999) was used to determine the sample size:

$$n = \frac{(z_{\alpha/2})^2 \times p \times q \times D_{eff}}{d^2}, n = \frac{(1.96)^2 \times 0.684 \times 0.316}{(0.05)^2} \times 2 \quad n = 664 + 66 = 730$$

where: n = the required minimum sample size.

Level of confidence 95%, which gives the percentile of the normal distribution, $Z_{\alpha/2} = 1.96$.

d = Margin of error, assumed to be 5%. D_{eff} = design effect

Sampling Procedure: Students were stratified on two faculties namely health and non health faculties assuming that there is knowledge difference on sexual and reproductive health matters between the two groups. Two departments from health and six departments from non health faculties were taken by simple random sampling method. Then numbers of students from both faculties were taken proportional to their population size. Finally the study subjects were selected from selected departments using systematic random sampling method.

Data Collection: Data was collected by using self-administered pretested questionnaire. Prior to data collection the questionnaire pre-test was conducted on 5% of sample population from non selected departments. Based on the response ambiguous questions were rephrased and unnecessary questions were excluded. During data collection spot checking was under taken by principal investigator and supervisors for clarification.

Data Analysis Technique: The raw data was entered into the computer using the data entry program Epi info version 3.5.1 and analysis was done using SPSS for windows version 16. Descriptive statistics like frequency, mean, median and mode was used and presented in the form of tables, graphs and charts. Variables found to be

associated with the major outcome (ever had sex) in the bivariate analysis were entered in to multivariate analysis using backward conditional method to come up with the strongest predictors of sexual activity.

RESULTS

Socio Demographic Characteristics: Six hundred eighty eight students of the total 730 sample size completed the questionnaire making the response rate of 94.24%. Among 688 participants two third 460(66.9%) of them were males while the majority (89.7%) were in the age group 20-24 with mean age of 21.3 (SD 1.44) and 20.54 (SD 1.2) for males and females respectively (Table 1).

Sexual and Reproductive Health Knowledge: Regarding knowledge when will the chance of pregnancy be higher in the menstrual cycle, only 197(28.6%) of participants correctly pointed out the fertile period when pregnancy would occur if there is unprotected sexual intercourse while the remaining have wrong perception.

Sexual Practice and Experiences of Jigjiga University Students: Three hundred seven (44.6%) of students participated in the study have had sexual intercourse at the time of survey. From these nearly three fourth 227 (73.94%) were males. Almost half of males (49.3%) and a little over one third (35.09%) of females who have participated in the study had sexual intercourse. The median and mean age at sexual debut was 18 and 17.59(SD 2.04) respectively. When disaggregated by sex the mean was 17.91(SD 1.85), 16.67 (SD 2.26) for males and females respectively. Almost three fourth (73.9%) of sexually active students said they have had their first sex with their boy or girl friend, 8.5% with family member, 1.3% with their teacher, 16.2% with stranger or casual partner.

Regarding predictors for their first intercourse, 79.8% respond they did it willingly, 5.5% were forced, 2% were convinced with money or gifts, 6.5% were given drugs such as alcohol, 2.3% were felt threatened and the rest 3.9% don't know the causes for their first sex.

Two hundred twenty six (73.6%) of those who ever had sexual intercourse were sexually active in last twelve months. From these about one third (33.6%) had multiple sexual partners (Figure 1).

Eighty seven (28.3%) of those who ever had sexual intercourse had multiple sexual partner after joining the university.

Table 1: Socio demographic characteristics of study population, in Jigjiga University in 2011

Characteristics	Male (460)	Female (228)	Total (688)
Age in years			
<20	35(5.1%)	36(5.2%)	71(10.3%)
20-24	425(61.8%)	192(27.9%)	617(89.7%)
Previous residence			
Urban	234(34%)	136(19.8%)	370(53.8%)
Rural	226(32.8%)	92(13.4%)	318(46.2%)
Class year			
II	273(39.7%)	158(23%)	431(62.6%)
III	138(20.1%)	58(8.4%)	196(28.5%)
IV	49(7.1%)	12(1.7%)	61(8.9%)
Ethnicity			
Amhara	231(33.6%)	111(16.1%)	342(49.7%)
Oromo	130(18.9%)	56(8.1%)	186(27%)
Somali	46(6.7%)	21(3.1%)	67(9.8%)
Tigre	26(3.8%)	25(3.6%)	51(7.4%)
Others	27(3.9%)	15(2.2%)	42(6.1%)
Religion			
Orthodox	284(41.3%)	147(21.4%)	431(62.6%)
Muslim	118(17.2%)	44(6.4%)	162(23.5%)
Protestant	41(6%)	30(4.4%)	71(10.3%)
others	17(2.5%)	7(1%)	24(3.5%)

Table 2: Jigjiga university Student's response on ways of preventing HIV/AIDS, in 2011

Ways of prevention (n=688)	Frequency	Percent
Abstain from sex	271	39.39
Be one to one with un infected partner	383	55.66
use condom during sex	256	37.21
Avoid sexual intercourse with prostitutes	117	17
Boil syringes/needles before use	118	17.15
Avoid sharing cutting and piercing materials	130	18.9

Note: columns do not add up to 100 % because of multiple responses.

Table 3: Perception of selected social norms and values by sex among Jigjiga University students, in 2011

Variables (n=688)	Total
Knowledge of contraceptives encourages to have sex	
Strongly agree	95(13.8%)
Agree	213(31%)
Disagree	225(32.7%)
Strongly disagree	155(22.5%)
It is very important for me when I had sex in my teenager	
Strongly agree	51(7.4%)
Agree	104(15.1%)
Disagree	294(42.7%)
Strongly disagree	239(34.7%)
Value for woman's virginity until she gets married	
Very important	437(63.5%)
Important	175(25.4%)
Not important	76(11%)
Value for a man's virginity until he gets married	
Very important	358(52%)
Important	183(26.4%)
Not important	147(21.4%)

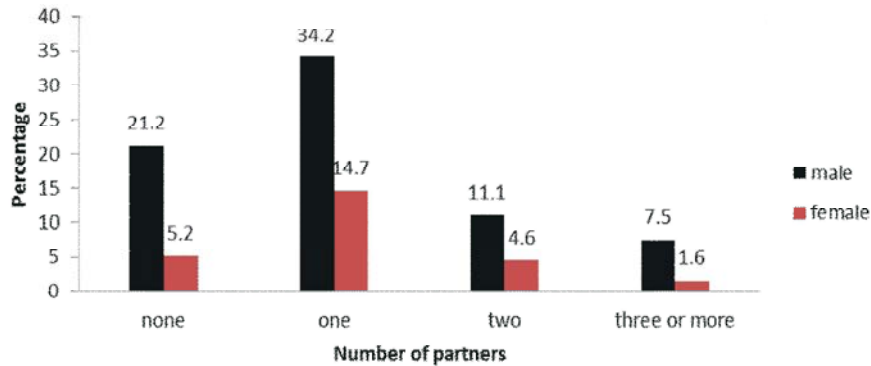


Fig. 1: Number of sexual partner in the last twelve months among Jigjiga university students by sex 2011

From 227 sexually active males (34.8%) claimed sexual contact with commercial sex workers (CSW's), (10.1%) reported never used condom, (25.3%) used some times, (19%) used most of the times and (45.6%) used it consistently during sexual encounter with CSW's. Forty six (15.1%) of sexually active females claimed they had been raped at least once in their life time. Forty six (15%) reported they have received something for exchange of sex. About half of respondents who received something said they have received money and nearly another half of them said they received gifts for sexual exchange.

Correlates of Sexual Experience

Perception of Some Social Norms and Values: Perception of some selected social norms and values such as knowledge of contraception by young people encourages sexual behavior, value given to sex during their teen age life, importance of virginity for both male and female before marriage were asked (Table 3).

Number of Close Friends, Peer Pressure and Peer Behavior: Concerning their close friends' sexual behavior 42% of students reported that their friends have had sexual intercourse, 43.5% reported that their close friend didn't start sexual intercourse and the remaining 14.5% don't know sexual behavior of their close friends. More than one fifth (21.5%) of respondents said that their male close friend had sexual intercourse with CSW's. A little over one third of respondents (34.9%) reported that there is pressure from friends to have sexual intercourse. About one third (34.2%) of respondents said that their best friend had sexual intercourse.

Fifty six (33%) of those had two close friends, 207(52.7%) of those who had three or more close friends, 208(53%) of those who had boy/girl friend, 124(62%) of those a few of their friends had sex, 20(69%) of those half of their friends had sex, 50(83%) of those most of their

friends had sex, 163(69%) of those who had best friend having sexual intercourse and 161(67.08%) of those who reported peer pressure to have sex had sexual intercourse at the time of survey.

Regarding leisure time activity, 369(52.2%) of all respondents said they read books during their leisure time, 225(32.7%) watch love films, 36(5.2%) said they attend night club and 213(31%) said they attend religious ceremonies during their leisure time.

Sexual practice of students with leisure time activity showed, 143(39.8%) of those who read books during their leisure time, 123(54.6%) of those who watch love films, 30(83%) of those who visit night club and 70(32.86%) of those who attend religious ceremonies, had sexual intercourse.

Substance Use: Over two thirds of respondents (67.6%) said that they never drank alcohol containing drinks, two hundred three (29.5%) said they drank some times, ten (1.5%) drank two to four times and another ten (1.5%) reported that they drank five or more times per month. They were also asked about khat chewing experience, more than three fourths (78.5%) reported that they never chewed khat, one hundred fourteen (16.6%) reported some times, nine (1.3%) reported two to four times per month, while 25(3.6%) said they chewed five or more times per month.

Concerning their sexual practice, 140 (63%) of those who ever drank alcohol and 102(70%) of those who chewed khat had sexual intercourse. Bivariate analysis showed students who drink alcohol were three times (COR 3.01(2.16,4.2)) more likely to engage in sexual activity than those who didn't drink, while students who chew khat were 3.6 times (COR3.62(1.82,2.95)) more likely than non chewers. But there is no association in multivariate analysis for both alcohol drinking and khat chewing.

Table 4: Correlates of sexual experience among Jigjiga university students, 2011

	Ever had sex		COR (95% CI)	AOR (95%)
	Yes	No		
Have Boy/girl friend				
Yes	208(30.2%)	188(27.3%)	2.16(1.57,2.94)	1.82(1.22-2.74)
No	99(14.4%)	193(28.1%)	1.000	
Number of close friends				
One	44(6.4%)	82(11.9%)	1.000	
Two	56(8.1%)	113(16.4%)	0.92(0.56,1.50)	1.11(0.64,1.92)
Three or more	207(30.1%)	186(27%)	2.07(1.36,3.15)	2.300(1.41,3.74)
Close friends sexual practice				
None of them	78(11.3%)	221(32.1%)	1.000	
A few of them	124(18%)	76(11%)	4.62(3.14, 6.8)	2.82(1.776,4.49)
Half of them	20(2.9%)	9(1.3%)	6.3(2.76,14.4)	1.84(0.670,5.05)
Most of them	50(7.3%)	10(1.5%)	14.17(6.9, 29.3)	4.93(2.06,11.79)
Don't know	35(5.1%)	65(9.4%)	1.53(0.94,2.48)	1.79(0.99,3.2)
Best friend had sex				
Yes	163(23.7%)	72(10.5%)	3.85(2.495,5.96)	1.47(0.84,2.57)
No	90(13.1%)	217(31.5%)	0.70(0.46,1.07)	0.77(0.46,1.29)
Don't know	54(7.8%)	92(13.4%)	1.000	
Pressure from friend to have sex				
Yes	161(23.4%)	79(11.5%)	2.04 (1.6,2.66)	1.65(1.06,2.56)
No	146(21.2%)	302(43.9%)	1.000	
Leisure time activity *				
Reading books				
Yes	143(20.8%)	216(31.4%)	0.66(0.49,0.90)	0.67(0.43,1.02)
No	164(23.8%)	165(24%)	1.000	
Watch love Films				
Yes	123(17.9%)	102(14.8%)	1.82(1.33,2.52)	0.60(0.371,0.98)
No	184(26.7%)	279(40.6%)	1.000	
It is very important for me having sex during my teenage				
Agree	40(5.8%)	11(1.6%)	5.04(2.54,10)	1.87(1.16,3.03)
Disagree	267(38.8%)	370(53.8%)	1.000	
Exposure to pornographic films				
Yes	218(31.8%)	94(13.7%)	2.32(1.82,2.95)	5.9(3.9,8.85)
No	89(12.9%)	287(41.7%)	1.000	
Virginity for female until she gets married				
Very important	166(24.1%)	271(39.4%)	1.00	
Important	100(14.5%)	75(10.9%)	2.18(1.52,3.10)	1.52(0.97,2.39)
Not important	41(6%)	35(5.1%)	1.91(1.17,3.12)	1.62(0.86,3.04)

* Multiple answers are possible

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Exposure to Sexually Explicit Medias/ Movies: Three hundred twelve (45.3%) of respondents participated in the study reported they have watched pornographic films. Out of these one fifth of them (21.5%) watched it more than three times per week, nearly one fourth (24.4%) sometimes and 54.1% watched it once per week. 218 (71%) of respondents who had sexual intercourse had watched pornographic films at the time of survey, of which one fourth (24.8%) watched it more than three times per week, over one fourth (26.1%) watched sometimes and nearly half watched it at least ones per week. Students who have

watched pornographic films were 5.9 times (AOR 5.9(3.9, 8.8)) more likely to engage in sexual intercourse than those who didn't.

Correlates of Sexual Experience among Jigjiga University Students (Multivariate Analysis): Variables which were associated with sexual practice of students in the bivariate analysis were entered in to multivariate analysis using back ward conditional method to control for confounder and to come up with the major predictors for sexual practice of students. After doing this

the variables which were consistently associated with sexual activity of students were, having boy/girl friend AOR 1.8(1.2, 2.7), having three or more close friends AOR 2.3(1.4,3.7), having few friends who had sex AOR 2.8(1.7,4.5), having many friend who had sex AOR 4.93(2.06,12),peer pressure to have sex AOR 1.7(1.06,2.57), watching love related films AOR 0.6(0.4,0.9) (protective) and exposure to pornographic films AOR 5.9(3.9,8.8) (Table 4).

DISCUSSION

This study assessed sexual and reproductive health knowledge, sexual experience and some of its predictors among Jigjiga university students.

From all respondents participated in the study only 197(28.6%),(25% of males and 36% of females) know the fertile period when a woman should get pregnant in her menstrual cycle if exposed to unprotected sexual intercourse.

Three hundred seven (44.6%) of all students participated in the study had sexual intercourse. Sex wise 227(73.94%) males and 80(26.05%) had sexual intercourse. From those who had sexual intercourse about 73.9% had sex in the past one year. This finding is slightly higher than study conducted among Addis Ababa university students which was (30.5%) for ever had sex and 68.4% in the past one year [28]. It is also higher than another study done on selected schools in Addis Ababa and study conducted in Nekemte [18, 19].

The median and mean age at sexual debut were 18 and 17.59 (SD 1.85) respectively, with females initiate sex earlier with mean age at sexual intercourse of 16.67 (SD 2.26) years. The EDHS 2005 showed median age of women at first sex (which is identical to median age at marriage) was 16.1 years which is slightly lower than the finding of this study.

Regarding number of sexual partners, about one third (33.63%) of sexually active respondents had multiple sexual partners in the last twelve months. In line with this study conducted among AAU showed 37.5% of those sexually active in the last twelve months had multiple sexual partners [15]. From 79 (34.8%) who claimed sexual contact with CSW's in the last twelve months, only 36 (45.6%) used condom consistently. The study among AAU students showed 19 (90.5%) of those visited CSW's have used condom consistently [15].

Two hundred eighteen (71%) of respondents who had sexual intercourse at the time of survey had watched pornographic films. Out of these nearly one fourth of them (24.8%) said they watched it more than three times per

week, over one fourth said (26.1%) sometimes and nearly half said (49.1%) watched at least ones. Multivariate analysis shows students who watched pornographic films were 5.9 times more likely to engage in sexual activity than those who didn't. This finding is lower than study done on selected schools of Addis Ababa from (17.8%) sexually active over two third (69.52%) respond affirmatively watch sexually explicit medias at least ones, 17.6% often, 49.7% some times and 32% rarely [19].The difference may due to access to sexually explicit medias(pornographic films) is higher in Addis Ababa compared to Jigjiga.

Students who had peer pressure to have sexual intercourse become sexually active by their own later in their life. The data showed 161(52.4%) of those who had sex reported pressure from friends to have sex. In multivariate analysis students who had peer influence were 1.7 times more likely to have sexual intercourse than students who do not(AOR of 1.65(1.06,2.57)). This finding is higher than Study conducted among Addis Ababa University students which says, 13.4% of students who had sexual intercourse had pressure from friends [15]. Regarding substance use, (63%) of those who ever drunk and (70%) of those who ever chewed khat had sexual intercourse. Study done in Tanzania showed substance use increases the possibility to initiate sexual intercourse or sexually experienced youths are more likely to initiate substance use. In contrary to this study done in Kenya showed substance use is associated with decreased protective behaviors rather than initiation of sexual intercourse. Looking in to this the line of causality between substance use and sexual experience needs further study.

Other variables which were consistently associated with sexual activity were: having three or more close friends AOR 2.3(1.4, 3.7),having a few friends who had sex AOR 2.8(1.8, 4.5), having many friends who had sexual intercourse AOR 4.9(2.06, 11.8) and having boy/girl friend AOR 1.8(1.23, 2.74).These findings can be explained jointly by study done in Kenya which showed that students who had sexually active peers become sexually active by their own because of peer pressure [17].

Watching love related films during leisure time found to be protective for having sexual intercourse with AOR 0.6(0.37, 0.98). This may depend on the type of love films students are watching, for example love films which show strong family formation, scarification for love, loyalty in a relationship etc. However further study is needed to deeply understand the type of love films students are watching and its relationship with their sexual behavior.

Moreover students who had permissive attitude to teenage/premarital sexual intercourse were nearly two times AOR 1.88(1.16, 3.03) more likely to engage in sexual intercourse than those who had negative attitude to premarital sex. This study is consistent with study done in Kenya which showed males and females who disapprove of premarital sex are only half as likely (44% and 55%, respectively) to be sexually experienced as those who would approve of premarital sex(15). On other study done among 713 Jimma university students on sexual value systems 400 (56%) (232 males and 168 females) were absolutists, 178 (25%) (127 males and 51 females) were relativists and 136 (19%) (101 males and 34 females) were hedonists. Even if this study was limited to certain socio demographic variables such as religion, it has shown that being relativist or hedonists predisposes students to risk sexual behaviors such as multiple sexual partners, unintended pregnancy, unprotected sex and other reproductive health problems [26].

CONCLUSION

The study depicts 44.6% of all respondents had sexual intercourse, from which nearly three fourth (74%) continued to be sexually active in the last twelve months. Sex wise nearly half of males and one third of females participated in the study had sexual intercourse. From those sexually active in the last twelve months about one third had multiple sexual partners, 34.8% admitted sexual contact with commercial sex workers out of these only 45.6% used condom consistently. Exposure to pornographic films, having permissive attitude to premarital sex and other variables which were related to peer pressure were strongly associated with sexual experience of students. Taken as a whole, the present work evidenced that, the problem of risky sexual behaviors was common among students in studied institution suggesting a need for identification of problems and implementation of effective prevention programs.

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