



Premarital Sexual Practice among Unmarried First Year Undergraduate Students in Alkan University College in Addis Ababa, Ethiopia

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ABSTRACT

BACKGROUND Premarital sexual practice among unmarried College students has markedly increased recently in Ethiopia. College students are recognized as one of the age groups most affected by sexually transmitted infections including HIV. However, little has been explored about the magnitude of premarital sexual activity and predisposing factors in the circumstance of private higher education institutions in Ethiopia.

OBJECTIVE To investigate the magnitude of premarital sexual practice and predisposing factors among unmarried undergraduate first year students in Alkan University College in Addis Ababa, Ethiopia.

METHODS A cross-sectional survey of college students was conducted in April-May 2013. Study participants were selected by stratified random sampling. A self-administered questionnaire was completed by 207 unmarried first year undergraduate students, and was analyzed using SPSS V.16.0. Multi-variate logistic regression was used to see association between variables. Results were summarized in frequencies and percentages and presented in tables.

RESULTS A total of 207 students took part in the survey. The mean age of respondents was 21.8 ±2.0 years. More than half of survey respondents (60.9%) reported that they have had premarital sex. Multi-variate logistic regression analysis showed that male respondents were more than seven times to ever have sexual intercourse as compared to female respondents (AOR= 7.6; 95%CI: 4.51, 34.87). However, age less than 18 years was found to be protective against premarital sexual practice (AOR=0.42.; 95%CI: 0.27- 0.73). Compared to respondents who do not use alcohol, those who are alcohol users after joining college were 3.8 times (AOR 3.05, 95% CI: 1.51- 4.32) as likely to begin premarital sex. Similarly, ever chewing khat after joining college was found to be positively associated with premarital sex in this study. (AOR=2.60.; 95%CI: 0.62-1.43).

CONCLUSION A significant number of students had started pre marital sexual activity that might predispose them to varied sexual and reproductive health problems. Hence, sex education & targeted behavioural change interventions are recommended.

Keywords: Premarital sex, condom use, unmarried first year college students, Alkan University College, Ethiopia

BACKGROUND

According to the Joint United Nations Program on HIV/AIDS (UNAIDS), in 2008 young people aged 15-24 years accounted for 42% of new HIV infections in

people aged 15 and older and nearly 80% of this live in sub-Saharan Africa^[1,2]. Unless appropriate age and institution targeted SRH intervention exist, certain



behaviors can place the university students at greater risk of HIV infection, STIs and unplanned pregnancy.

The majority of students 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 risk sexual behavior^[1,3]. Physiologically, the changes in reproductive organs that occur in the life of adolescents often serve as a motivating force in their quest to experiment with sex. Some naturally explore and take risks in many aspects of their lives, including sexual relationships. Those who have sex may change partners frequently and have more than one partner in the same time period or engage in unprotected sex. Early sexual debut increases young peoples' risk for infection with HIV and other STIs. Youth who begin early sexual activity are more likely to have high-risk sex or multiple partners and are less likely to use condoms^[3, 4].

As evidenced by different literatures timing of sexual debut among youths is influenced by a wide range of factors including age, gender, residence, educational level, knowledge on HIV, economic status, watching pornography, Khat and alcohol utilization^[5].

Youths with no comprehensive knowledge on HIV were found to be eight times more likely to practice early sexual initiation than those who have comprehensive knowledge on HIV and this could be due to the fact that youths who do not have comprehensive knowledge on HIV may fail to appreciate the importance of delay of sexual intercourse for prevention HIV infection or may have less access to sexual and reproductive health education and promotion in general. This is in line with the research finding from Nigeria where youths with poor knowledge on HIV initiated sex earlier compared to youths with good knowledge on HIV^[6] and another study among Flemish secondary school students reported similar finding^[7].

According to Ethiopian Demographic and Health Survey (EDHS) 2005; among women age 25–49 years, 32% had sexual intercourse before age 15 years, 65% before age 18 years, and by age 25 years most Ethiopian women have had sexual intercourse.

In Ethiopia, trends in the median age at first sexual intercourse has increased little over the past five years from 16.5 years in 2005 to 17.1 years in 2011 for women and from 21.1 years in 2005 to 21.2 years in 2011 for men^[8,9,10]

Premarital sexual activity among unmarried College students has markedly increased recently in Ethiopia. The college environment offers immense opportunity for HIV high-risk behaviors, including unsafe sex and multiple partnerships. However, little has been explored about the magnitude of premarital sexual activity and predisposing factors in the circumstance of private higher education institutions in Ethiopia. Therefore, this study was aimed to investigate the magnitude of premarital sexual activities and predisposing factors among unmarried freshmen undergraduate college students in Alkan University College in Addis Ababa, Ethiopia.

METHODS

Study Design and Setting

A cross-sectional survey of unmarried undergraduate first year college students were conducted in April-May 2013. The study was conducted in ALKAN University College (AUC) which is located in Addis Ababa, Capital City of Ethiopia. AUC is a privately owned college under the ALKAN Private Limited Company (PLC) founded in December 2002. Currently, the college has over 3000 students in its three branches (Addis Ababa, Dessie and Bahir Dar). The College started operation in Addis Ababa and Bahir-Dar cities running health training programs at diploma and degree level in nursing, Pharmacy, Public health, Sociology and Social Anthropology. ALKAN University College is advancing year after year and as result, its scope of work and its involvement in launching new training program has drastically increased. Recently, it has launched training of *MPH program* jointly with University of Gondar in 2013.

Sample Size

A single population proportion formula, $[n = (Z \alpha/2)^2 p (1-p) / d^2]$, was used to estimate the sample size. The minimum required sample size was calculated using electronic sample size calculator (with 5% margin of error, 95% confidence level, and $P=50\%$); and it was found to be 2012 (including 10% non-



response rate). The total number of students who answered the questionnaire was 207, making the response rate of the study 97.6 %.

Sampling Procedure

The source population for this study was all unmarried first year undergraduate students at AUC. According to AUC registrar's office, there were about 425 single freshmen students in 2013; 400(94%) of them were admitted to health science departments and 25(6%) were admitted to non- health science departments. To obtain a representative sample, stratified random sampling was applied to select study participants from the source population. First the students were divided in to two practical strata, which were female students and male students. From each stratum, participants were selected by simple random sampling based on the proportion of the number of unmarried students in each stratum that is 94 % female students and 6 % male students. All single undergraduate first year students at the University College were eligible for the study.

Data Collection Method

Data was collected using self- administered Questionnaire which was prepared in English to assess their socioeconomic status, and reproductive characteristics. To augment the quality of the data, most of the questions were adapted from previously conducted studies with some changes based on the local context(13,18) . Similarly, confidentiality and anonymity of the study was reassured. The data was collected while students were in class rooms. Finally, the questionnaires were gathered and checked for completeness by the principal investigator.

Ethical Consideration

Before the data was collected, ethical approval was obtained from AUC Ethical Committee. The purpose of the study was explained to all study participants; they were also informed that all of their responses are confidential and anonymous, and they have all

the right not to be involved in the study or not to answer any of the questions.

Data Analysis

The collected data were entered into a computer and analyzed using SPSS version 16.0. During the process of analysis, frequencies and percentages of different variables were determined and odds ratios were calculated on some selected variables to determine the association of these selected variables. Results were presented in tables.

Operational Definitions and Terms Used in This Study

Sexual experience: Practiced penetrative penile vaginal sex at least once.

Khat: Khat (*Catha edulis*) is an ever-green plant that is extensively cultivated in the highlands of Ethiopia. A student was considered a chewer if s/he responded yes to the question '*Have you chewed khat previously?*'

HIV-risky sexual behavior is defined in this study as multiple numbers of sexual partners and inconsistent or non-use of condoms.

Early sexual initiation: was defined in the present study as having sexual intercourse before the age of 18 years.

RESULTS

Socio Demographic Characteristics

A total of 207 students participated in this study which comprised of 74 (35.7 %) males and 133 (64.3%) females. The respondents were made up of first year single undergraduate students including 66 nursing students, 56 Pharmacy students, 70 Public Health students, and 15 Sociology students. Most 121 (58.2%) of them were Oromo by ethnicity and 107 (51.7%) were followers of orthodox Christianity followed by protestant 52 (25.1 %). Majority of the study participants 120 (58%) were in the age range of 20–24 years with mean (\pm SD) age of 21.8 (\pm 2.0) (Table 1)



Table 1 Socio-demographic characteristics of first year single undergraduate students at Alkan University College (N=207), Addis Ababa, May 2013

Variables	Frequency	Percent (%)
Age (yrs)		
15 – 19	87	42
20 – 24	120	58
[Mean(\pm SD) = 21.8 (\pm 2.0)] years		
Sex		
Male	74	35.7
Female	133	64.3
Religion:		
Orthodox	107	51.7
Muslim	48	23.2
Protestant	52	25.1
Ethnicity		
Oromo	121	58.2
Amhara	62	30.3
Gurage	8	3.8
Tigre	16	7.7
Category:		
Nursing	66	31.9
Pharmacy	56	27.1
Public Health	70	33.8
Sociology	15	7.2
Household income per month:		
Less than 28 Dollars	42	21.0
28 – 56 US Dollars	144	69.0
Above 56 Dollars	21	10.0

Experience of pre-marital sexual initiation of study participants

One hundred twenty six (60.9 %) of the study participants had started premarital sex out of which 28(22.2%) of first sex was casual. A greater percentage of males compared to females had ever had premarital sexual intercourse (58% versus 42%).

The mean (\pm SD) age of premarital sexual initiation in this study was 15.5 years for females and 17.1 for males, respectively. Among those adolescents who had premarital sex, the majority (69.0 %) had their first sexual intercourse under the ages of 18.

When respondents were asked about the number of sexual partners, the majority 84 (66.6%) of them reported that they had more than three sexual partner while 24 (19.1%) had two partners in the past 12 months prior to the survey.

When the relationship of the adolescents to their first sexual partners was examined, the majority of the partners 76 (60.4%) were boy/girl friends followed by acquaintance with outsiders, 29 (23.0%). Fourteen (11.4%) of the respondents reported having sex with commercial sex workers.



The main reasons for initiation of sexual intercourse were: fell in love, which accounted for 51 (40.5 %),

followed by pressure from boy/girl friend to practice sexual intercourse 42 (33.4%) of the cases. (Table 2).

Table 2 Experience of pre-marital sex among Alkan University College students (N=207), May 2013

Variables	Frequency	Percent (%)
Ever had sex(N=207)		
Yes	126	60.9
No	81	39.1
Age at first sex(n=126)		
< 18 yrs	87	69.0
≥18 yrs	39	31.0
[Mean(±SD) =		
Female: 15.5 (±1.2)] years		
Male: 17.1(±1.72)] years		
Gender		
Male	74	35.7
Female	133	64.3
First sex was(n=126)		
Causal	28	22.2
Non-causal	98	77.8
With whom 1 st sex was made (n=126)		
Boy/girl friend	76	60.4
Teacher	5	3.97
Outsider	29	23.0
Commercial sex workers	14	11.4
Others	2	1.6
Number of sexual partner in the past 12 months (n=126)		
One only	24	19.1
Two only	84	66.6
More than three		
Reasons to start sexual intercourse (Multiple Reponses)		
Fell in love	51	40.5
Boy/girl friend's pressure	42	33.4
To maintain relationship	13	10.3
Peer pressure	8	6.3
Material gifts	10	7.9
Raped	2	1.6
Others	0	0



Condom use and predisposing factors for premarital sexual initiation

Among those who ever had premarital sexual intercourse, 53(42%) have ever used condom during first sexual intercourse. Among fifty three students responded to the frequency of condom use,

22(41.5%) have used condom always. About thirty nine percent of respondents who started premarital sex had been exposed to pornography. The prevalence of alcohol and khat use was found to be 44.4 % and 34.1% respectively (**Table 3**).

Table 3 Condom use and predisposing factors for premarital sexual initiation among Alkan University College students (N=126), May 2013

Used condom with first sexual intercourse (n=126)		
Yes	53	42
No	73	58
Frequency of Condom use (n=53)		
Always	22	41.5
Occasionally	16	30.3
Rarely	15	28.2
Exposed to pornography (n=126)		
Yes	37	29.4
No	89	70.6
Alcohol use(n=126)		
Yes	56	44.4
No	70	55.6
Khat use(n=126)		
Yes	43	34.1
No	83	65.9

Factors associated with premarital sexual initiation

Multi-variate logistic regression analysis was used to minimize the effect of confounding variables and to identify the real factors contributing to premarital sexual practice. Variables entered into the multivariate regression analysis were; Age, sex, exposure to Pornography, Khat use, and alcohol use. Multi-variate logistic regression analysis showed that Male respondents were more than seven times to ever have sexual intercourse as compared to female respondents (AOR= 7.6; 95%CI: 4.51, 34.87). Age less

than 18 years was found to be protective against premarital sexual practice (AOR=0.42.; 95%CI: 0.27-0.73). Compared to respondents who do not use alcohol, those who are alcohol users were 3.8 times (AOR 3.05, 95%CI: 1.51- 4.32) as likely to initiate premarital sex earlier. Similarly, ever chewing khat was found to be positively associated with premarital sex in this study. (AOR=2.60.; 95%CI: 0.62-1.43). (**Table 4**)



Table 4 Factors associated with premarital sexual initiation among respondents of Alkan University College students (N=126), May 2013

Variables	Ever had sex		Crude OR(95%CI)		Adjusted OR(95%CI)
	Yes	No			
Age :			1.00	1.00	
< 18 Yrs	75(36.2)	65(31.4)	0.36(0.25,0.53)		0.42(0.27,0.73)
≥18 Yrs	51(24.6)	16(7.7)			
Sex			1.0	1.00	
Male	103(81.7)	20(24.7)	13.6(5.0,21.3)		7.6(4.51,34.87)
Female	23(18.3)	61(75.3)			
Exposed to pornography after joining College			1.0	1.00	
Yes	27(21.4)	10(7.9)	8.53(3.28, 9.21)		4.3(2.34, 9.41)
No	19(15.1)	60(47.6)			
Khat use after joining College			1.0	1.00	
Yes	31(24.6)	12(9.5)	4.56(1.32,3.72)		2.6(0.62, 1.43)
No	30(23.8)	53(42.1)			
Alcohol use after joining College			1.0	1.00	
Yes	36(28.6)	20(15.9)	3.45(2.27, 4.58)		3.05(1.51,4.32)
No	24(19.0)	46(36.5)			

DISCUSSION

This study investigated the magnitude of premarital sexual activities and Predisposing factors among unmarried undergraduate freshmen students in Alkan University College in Addis Ababa, Ethiopia. The overall prevalence of premarital sexual practice in the study population was 60.9%. The proportion of male adolescents (58.0%) who were involved in premarital sex in the study area was slightly more than the proportion of female adolescents (42%). This finding is higher than the finding of Ethiopian DHS 2005, in which 4.3% of never-married 15-24 year age group females and 12.4% of males ever had sex (8). This might be explained by the difference in the study design. This study is institutional based where

as that of DHS is community based study with a representative sample size.

This finding is also relatively high particularly for males compared to other prior study findings in the country. In Addis Ababa, for instance, the proportion was 39.8% for males and 5.6% for females^[11]. In Gondar, it was 46.2% and 16.2% for males and females, respectively^[12]. In Nekempte, it was 70.3% for male and 6.4 for female^[13]. The National finding of the prevalence of premarital sex among in-school adolescents was 19%, which is lower than the current finding^[15]. This finding is also high when compared to another similar study done in Nekempte where the prevalence of premarital sex was 21.5%^[13]. However,



in Sub-Saharan Africa, the figures are higher than the current findings, which were 45%-52% for both sexes. But it is found to be higher than the findings from Asia, which ranges from 2%-11%^[14, 15]. This reveals that premarital sexual practice among undergraduate freshmen College students in the study area is higher than some other study findings

In this study, the mean (\pm SD) age of premarital sexual initiation in this study was 15.5 years for females and 17.1 for males, respectively. Among those adolescents who had premarital sex, the majority (69.0 %) had their first sexual intercourse under the ages of 18. This finding is slightly higher for male but almost the same for female when compared to a study from Nekempte^[13] (13) where the mean age at first sexual intercourse was about 16.2 + 1.5 years for males and 15.2 + 1.7 years for females.

Studies conducted in Addis Ababa in 1994 and 2000 reported that the mean age at first sexual intercourse was 15.5 + 5.4 years for females and 16.4 + 4 years for males and 15.3 + 1.45 for both sexes^[16]. A study from Cameroon also showed that the mean age at first sexual practice was 15.6 years for males and 15.8 years for females^[17]. The mean age of the adolescents at first sexual intercourse in the current study also falls within the range of other similar studies both in Ethiopia and the globe.

When the relationship of the adolescents to their first sexual partners was examined, the majority of the partners (60.4%) were boy/girl friends followed by acquaintance with outsiders, (23.0%). Fourteen (11.4%) of the respondents reported having sex with commercial sex workers. The main reasons reported for initiation of sexual intercourse were: fell in love, which accounted for (40.5 %), followed by pressure from boy/girl friend to practice sexual intercourse 42 (33.4%) of the cases. This finding is in line with studies from Nekempte and Jimma University^[13, 18].

In this study, being a male adolescent was found to be positively and significantly associated with premarital sex in the study area. Multi-variate logistic regression analysis showed that male respondents were more than seven times to ever have sexual intercourse as compared to female respondents

(AOR= 7.6; 95%CI: 4.51, 34.87). However, age less than 18 years was found to be protective against premarital sexual practice (AOR=0.42.; 95%CI: 0.27-0.73).

Similar studies show that a much higher percentage of young men reported having premarital sex than young women^[15]. This may be due to cultural norms that encourage and approve sexual experimentation of boys and the value given to virginity for girls^[19]. Various studies have shown that economic factors have a significant role in adolescents' sexuality. Young girls enter into sexual relationship with older and rich men (referred as sugar daddies) who can help them with tuition fees, or buy of material goods.

When respondents were asked about the number of sexual partners, the majority (66.6%) of them reported that they had more than three sexual partners while (19.1%) had two partners in the past 12 months prior to the survey. Among those who ever had premarital sexual intercourse, (42%) have ever used condom during first sexual intercourse. Among fifty three students responded to the frequency of condom use, (41.5%) have used condom always. About thirty nine percent of respondents who started premarital sex had been exposed to pornography. This finding is high when compared to the study conducted in Jimma University, which reported 28.3% had multiple sexual partners.^[18]

In this study, condom usage among the respondents is almost similar with the findings of EDHS 2011 (47% for male youth and 62% for female youth)^[9, 18].

In this study, alcohol users after joining College were three times more likely to begin premarital sexual intercourse earlier than those who didn't use alcohol and congruent with studies done in other parts of Ethiopia^[20, 21]. This is true in spite of the concern about HIV infection, because alcohol decreases to be in charge of one's self and sexual conciliation skill of adolescents^[22, 23]. Similarly, College students who chewed khat were also found to be two times more likely to strat premarital sexual intercourse earlier than their counterparts. This finding is also supported by similar studies in other parts of Ethiopia^[20, 21]. The possible explanation for this association could be due



to loss of track of mind induced by khat chewing which motivated them to have casual and early sexual initiation ^[23].

This study has several limitations and caution must be exercised in generalizing the result of this study. First, the inherent bias due to underreporting of behaviors as a result of the social desirability phenomenon cannot be ruled out in this study as a result of the use of self-administered questionnaires. Secondly, the study was conducted in a single private Higher Education Institution in Ethiopia. Similar institutions in the country may share some of its characteristics but they are by no means homogeneous and so any generalization of the results of this study must be made with caution. Thirdly, because this was a survey, the contexts in which the HIV risk behaviors occurred could not be explored. It is, therefore, recommended that qualitative studies that examine the contextual factors involved in the engagement in HIV risk behaviors among students in all the study setting be carried out.

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In conclusion, this study showed that a significant proportion of College students had engaged in premarital sex. Personal craving to experiment sexuality, peer pressure and economic desires were the most frequently mentioned reasons for College students to begin premarital sex. Being male gender, substance user, and exposure to Pornography were positively associated with premarital sex in the study area. However, age less than 18 years was found to be protective against premarital sex.

Hence, a comprehensive sexual and reproductive-health education program in response to the pressing needs of college Students must be promoted assertively in the study setting. The program should give students an understanding of risk behaviors, safer sex practices including the correct use of condoms consistently.

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