

Assessment of Premarital Sexual Practices and Associated Factors among Private College Regular Students in Bahir dar city, Northwest Ethiopia: A Cross-Sectional Study.

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Abstract— Background Sexual activity among adolescent has been reported to be on the increasing worldwide. Globally, puberty is occurring earlier for both boys and girls, and the age at which people marry is rising. These leave a widening gap of time during which young adults can potentially engaged in premarital sexual activity. Therefore this study was done to assess pre-marital sexual practices and associated factors among private college students in Bahir Dar city, Northwest Ethiopia.

Method: An institution based cross-sectional study was employed in private college, Bahr Dar, North west Amhara, Ethiopia from July to December 2016. The sample size to each college was allocated using probability proportional to size (number of student) allocation, and study participants were selected by systematic sampling technique. A total of 402 students were included in the study. Pre-testing of the questionnaire was undertaken. Data was collected using a pre-tested structured questionnaire through self administration. Data entry and analyses were performed using SPSS statistical packages (version 20 for Windows). Bivariate and Multivariable analysis were computed.

Result: A total of 344 students took part in the survey. More than one fifth of survey respondents (23.3%) reported that they have had premarital sex. Multi--variate logistic regression analysis showed that male respondents were two times more likely to be have premarital sexual intercourse as compared to female respondents (AOR: 2.3, 95% CI: 1.4-4.1). Students who watch video, movies or other entertainment programs were more than five times more likely to start pre-marital sexual debut than those not watching video, movies or other entertainment programs (AOR: 5.5, 95% CI: 2.7-11.2). Similarly work to earn money was found to be positively associated with premarital sex in this study (AOR: 3.2, 95% CI: 1.8-5.7).

Conclusion and recommendation: 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, college students, Bahirdar, Ethiopia.

I. BACKGROUND

Globally, puberty is occurring earlier for both boys and girls, and the age at which people marry is rising. These leave a widening gap of time during which young adults can potentially engaged in premarital sexual activity. Most young people throughout world will engage in sexual intercourse by age 20, whether married or unmarried [1, 2].

Several studies in sub-Saharan Africa have also documented high and increasing premarital sexual activities amongst adolescents. Data from the DHS from the Africa region show that, in 7 out of 9 countries surveyed, more than half of unmarried woman in their reproductive years (15-49) have had sexual intercourse at least once [3]. According to the behavioural surveillance survey report of 2002, the proportion of out of school and in school youth who ever had sex was 49% and 16%, respectively. Amongst the younger out of school youths, 35% males and 29% females had ever had sex; in contrast, amongst in school youths about 19% of males and 13% of females had ever had sex [4].

In Ethiopia Bisrat's study revealed that among the senior high school students in Harar 65% of males and 20% of females were sexually active [5]. Data from ministry of labor and social affairs (MOLSA) showed that 22.9% of males and 19.7% of females in the 15-19 years age group, and 53.4% of males and 19.7% of females in the 18-19 years age group had had sexual intercourse before marriage [3].

The vast majority of sexual intercourse during adolescence period is unprotected and therefore the risk of unwanted pregnancy, unsafe abortion, and STIs including HIV/AIDS is very high. Lack of accurate information about

reproductive health and sexuality, lack of access to health services including contraception, and vulnerability to sexual abuse put adolescent at highest risk [6]. Study done among school adolescents in Bale zone of Oromia Region also shows that among sexually active students 47.7% had sexual encounter with multiple partners. Sexually active students also reported that they had sexual commencement with causal partner, partner with multiple sexual partners and commercial sex workers (in 43.7%, 38.9%, and 20.5% of the cases respectively) [7]. Fall in the age of menarche, increasing age at first marriage, increased participation of women in the labor force, wide spread migration to urban towns, weakening of traditional norms and values and transmission of new ideas through films, music, book and mass media are believed to be contributory to this observed increase in premarital sexual activity [3].

Private colleges in Ethiopia do not have accommodations for their students unlike governmental universities. Most of the students come from rural areas and are living in the rented houses away from their supervising families and this could open a door for having pre-marital sexual intercourses and risky sexual practices. In addition to this, transmission of new ideas through videos, music and books which could enforce students to pre-marital sexual intercourses is also highly observed in the town. Research conducted among young people in Ethiopia indicates that an increasing number are involved in pre-marital sexual intercourses and unsafe sexual practices and hence face undesired health outcomes such as unplanned pregnancy, early childbirth, unsafe abortion and sexually transmitted diseases. To the investigators best knowledge, there have been only few studies in private colleges on pre-marital sexual intercourses. Therefore, this assessment is believed to give the present image of youth premarital sexual practices and factors related to it, which may help the concerned bodies to take actions based on the findings

II. METHODS

Study setting

An institution based cross sectional study was conducted on private college students in Bahirdar town which is found 564 km far away from Addis Ababa. Bahir dar town is the capital of Amhara regional state in the Northwest part of Ethiopia. The city was founded in 1922 and set at altitude of 1830 m, it lies on the southern tip of lake Tana with tropical climate.

In terms of infrastructure development there is one governmental referral hospital, ten health centers, one private hospital, ten higher clinics, seventeen medium private clinics, twelve small clinics & five NGO clinics. It has also one university, eight private colleges, one vocational training center and three high schools. Therefore our study conducted among regular private

college students. Private colleges in the city host many students and are running different fields. According to the information obtained from the Registrar Office of college 3990 students in the regular programs with different fields of study. The study was conducted from July to December 2016.

Sampling

The source population of the study was All regular students of private colleges in Bahir Dar city enrolled in 2016 academic year. The study populations were all youth students in selected private College. The sample size was determined using single population proportion formula. The proportion of pre-marital sexual practices was determined based on previous study in Addis Abeba among private college 60.9% (26). Then, the following assumption was used: level of confidence 95 % (1.960), a 5% marginal error, Since the source population is less than 10,000 finite population correction formulas is applied then after considering non response rate of 5%, the final sample size was 352.

Sampling technique

There are a total of 8 private colleges in the city. two college was randomly selected and included in the study. The total sample size was allocated to the selected college based on the probability proportional to size, size being the number of students in the college. Then study participants was selected based on probability proportional to size, size being the number of students in each year of study. Departments were selected randomly from each year of study. The sample size was allocated for each department. Eventually, the required numbers of participants were chosen from each year of study by using systematic sampling methods from list of students. Data were collected using structured Amharic questionnaire through self-administered questionnaire by trained data collector. Based on the review of relevant literature, the questionnaires were adopted from reviewed literatures. Most of the items were adapted from existing surveys [15, 16, 18] and comprises four sections: socio-demographic characteristics of participants, personal behaviours and practices

,and sexual history. In this study, premarital sex: A penetrative vaginal, oral and anal sexual intercourse performed before formal marriage. Casual sex: A sexual intercourse happening by chance without care or thought. Commercial sex partner: A partner who was paid money in exchange for sex. Non-commercial sex partner: Any partner other than a commercial partner. Sexually active: A student who had had a penetrative sexual intercourse (vaginal) at least once prior to the study. Early sexual intercourse: A penetrative sexual intercourse performed before the age of sexual maturity (15 years of age). Age of

sexual debut: The age at which the first sexual commencement occurred.

A structured questionnaire was prepared in English and translated into Amharic language and was re-translated back to English by Linguistic graduates and Health professionals to ensure consistency. A one day training regarding the objectives of the study and ways of administering the questionnaire was given to the data collectors as well as the supervisors by the investigator. The prepared questionnaire was pre-tested prior to the actual data collection on 30 participants that were not included in the main survey.

The data was edited, coded, entered and analysed SPSS version 20.

Data analysis

Bivariate and multivariable analyses were computed to test whether there was association between premarital sex and selected independent variables.

Ethical consideration

Ethical clearance was obtained from ethical review committee of Keamed University College. Letter of

permission was obtained from the health bureau and Bahirdar district health office. The confidentiality of information was maintained by excluding personal identifiers. Data were collected after securing informed consent from every respondent.

III. RESULTS

Socio demographic characteristics

From a total of 352 participants who were identified for the study, 344 were participated in the study yielding the response rate of 97.7 %. The mean age of the respondents was 20 ± 2.1 years old. Almost all participants (96.2%) were found between the age group of 15-24 years old. The majority (66.9%) of the participants were females. The predominant religion was orthodox Christian 334 (97.1%). About two third of the participants, 242 (70.3%) of participant permanent residence were urban.

One hundred sixty one (46.8%) of the participants were from level one (first year). (Table 1)

Table.1: Socio-demographic characteristics among private college students in Bahir dar city, Northwest Ethiopia, 2016. (n=344)

variable	Frequency	Percentage (%)
Age in years		
15-24	331	96.2
25-34	13	3.8
Sex		
Male	114	33.1
Female	230	66.9
Permanent residence		
Rural	102	29.7
Urban	242	70.3
Educational status		
Level 1(1 st year)	161	46.8
Level-2 (2 nd year)	69	20.1
Level-3+ (3 rd year and above)	114	33.1
Educational status of the mother		
Illiterate	123	35.8
Read &write	84	24.4
Primary education(1-8)	44	12.8
Secondary education (9-12)	24	7.0
Above 12th grade	27	7.8
Educational status of the mother		
Illiterate	70	20.3
Read &write	114	33.1
Primary education(1-8)	28	8.1
Secondary education (9-12)	49	14.2
Above 12th grade	21	6.1

Personal behaviours and practices

The study participants reported that their school expenses were covered by both parents 248(72.1%), mother only 27(7.8%), self 23 (6.7%), father only 16(4.7%).

In order to earn money for themselves, 190 (55.2%) of the study participants reported that they were engaged in informal employment. Among these, those who were involved in shop work 60 (31.6), construction 36(18.9), buying and selling,29 (15.3%), shoe shining 10(7.9%), and domestic work 18(9.5%).

Near to one third of the participants 98 (28.5%) reported that they lived with alone. The rest said that they lived

with both parents 95(27.6%), peers or friends or co workers 89 (25.9%), family (relatives) 50 (14.5%).

In the four weeks preceding interview, 36(10.5%) of the participants had consumed drinks containing alcohol. Regular consumption of alcohol (consumption at least once a week) was reported by 22 (6.4%) of the participants .Overall, 12(3.5%) of the participants had ever used drugs. From these, all of the participants were Khat users (Table 2).

Table.2: Some personal behaviours and practices among private college students in Bahir dar city, Northwest Ethiopia, 2016. (n=344).

Variable	Frequency	Percentage (%)
School fee covered by		
Both Parents	248	72.1
Mother only	27	7.8
Self	23	6.7
Father only	16	4.7
Relatives	19	5.5
Other	11	3.2
Type of work they do (n=190)		
shop worker	60	31.6
construction	36	18.9
buy and sell	29	15.3
domestic worker	18	9.5
shoe shining	4	2.1
Other	43	22.6
Currently living with whom		
Alone	98	28.5
with both parents	95	27.6
with peers or friends or co workers	89	25.9
with family(relatives)	50	14.5
with mother only	9	2.6
Frequency of alcohol in take		
In the last 4 weeks		
at least once a week	22	6.4
less than one week	10	2.9
Everyday	4	1.2
Never	308	89.5

Sexual history

Eighty (23.3%) of participants reported that they had ever had sexual intercourse prior formal marriage to this study. From these, 41(11.9%) and 39 (11.3%) were males and females respectively. The minimum and maximum ages of sexual debut for males were 14 and 23 years and that of females was 15 and 22 years respectively.

The majority of participants (76.2%) of the sexually actives started sex in the age group 15-19 years,18(22.5%) in the age group 20-24 years old and the rest in the age group of 10-14 years old. From the total

female participants who have already experienced sexual intercourse, 3 (3.8%) have got pregnant at least once prior to this study, out of which 1 (1.3%) reported history of abortion. Personal desire and peer pressure were the most common reasons to start the first sexual intercourse reported by 27(33.8%) and 22(33.8%) sexually active participants respectively.

The majority (65%) of participants were reported that they had one sexual partner in the previous 12 months and the rest of participants had two and above sexual partner. From the total participants who have already experienced

sexual intercourse, Most of (93.7%) participants were committed sexual intercourse with non commercial

partners. Almost all(98.1%) participants had not ever history of sexual transmitted disease (Table 3)

Table.3: Sexual activity among private college students in Bahir dar city, Northwest Ethiopia, 2016. (n=344).

Variables	Frequency	Percentage (%)
Reasons for pre marital sex intercourse(n=80)		
Personal desire	27	33.8
Peer pressure	27	33.8
To maintain relationship with partner	15	18.8
Alcoholic influence	3	3.7
Drug or khat influence	2	2.5
Rape or forced sex	1	1.3
Number of partners in the last 12 months(n=80)		
One	52	65
Two and above	28	35
Type of partners in the last 12 months		
Non commercial	75	93.7
Commercial	5	6.3
Ever had symptom of STI		
Yes	3	.9
No	341	98.1
Attending video, movies or other entertainment programs		
No	128	37.2
Yes	216	62.8
attending video leads to premarital sex		
No	274	79.7
Yes	70	20.3

Factors associated with practice of pre marital sexual intercourse

Bivariate and multivariate logistic regression was done to assess the association between practice of pre marital sexual intercourse and factors associated with pre marital sexual intercourse. First all factor were analyzed by bivariate analysis, of them only three factors that had significant effects on pre-marital sexual intercourse, which had a P-value ≤ 0.2 , then those significant variables entered into multi variety logistic regression analysis. Among these, three variables (sex of the participant, working to earn money and Attending video, movies or

other entertainment programs) were found to be statistically significant.

Multivariate backward stepwise analysis was conducted to assess the association between practice of pre marital sexual intercourse and factors associated with pre marital sexual intercourse. It showed that sex of the participant (AOR: 2.3, 95% CI: 1.4-4.1), working to earn money (AOR: 3.2, 95%CI: 1.8-5.7), Attending video, movies or other entertainment programs (AOR: 5.5, 95%CI: 2.7-11.2) were significantly associated with pre marital sexual intercourse.(Table 4)

Table.4: Factors associated with practice of pre marital sexual intercourse among private college students in Bahir dar city, Northwest Ethiopia, 2016. (n=344).

Variables	Practice of premarital sexual intercourse		COR(95% CI)	AOR(95%CI)
	No	Yes		
Sex of participant				
Male	73	41	2.8(1.6-4.6)	2.3(1.4-4.1)

Female	191	39	1.00	1.00
Working to earn money				
No	133	21	1.00	1.00
Yes	131	59	2.9(1.6-4.9)	3.2(1.8-5.7)
Attending video, movies or other entertainment programs				
No	117	11	1.00	1.00
Yes	147	69	4.9(2.5-9.9)	5.5(2.7-11.2)

IV. DISCUSSION

This study investigated the magnitude of premarital sexual activities and Predisposing factors among private college students in Bahir dar, Ethiopia. The overall prevalence of premarital sexual practice in the study population was 23.3%.

This shows that many students were sexually active until this study conducted. However, this finding was much lower studies done in high school and college students in North West Ethiopia, Hawassa, Harara, Agaro, Addis Abeba [9, 10, 12, 13, 17, 18]. The lower finding could be attributed to increase information dissemination and education to college youths about HIV/AIDS and reproductive health issues resulted in a change of sexual behaviour. The other reason could be respondents might hide the truth being shy to disclose their sexual exposure history to the interviewers. On the other hand, this finding is relatively high when compared to the result studies done Addis Abeba and national HIV AIDS behavioural surveillance survey [8, 14].

In this study, the mean (\pm SD) age of premarital sexual initiation was 18 ± 1.8 years old. Among those students who had premarital sex, the majority had their first sexual intercourse in the age between 15-19 years old, this was lower than the findings of previous similar studies done in Addis Abeba, North west Ethiopia, Hawassa Harar and Agaro [8, 9, 10, 11, 17].

The main reasons reported for initiation of sexual intercourse were: personal desire which accounted for (33.8%) and peer pressure from boy/girl friend to practice sexual intercourse (33.8%) of the cases. This finding is in line with study done from Addis Abeba Alkan university college which showed that 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 and peer pressure and national HIV/AIDS behavioral surveillance survey (22%) [14,18].

Among sexually active respondents, a total of 6.3% students reported experiencing commercial sex, which is higher than finding in the national HIV/AIDS behavioral surveillance survey study revealed that 1.5% of sexually active school adolescents in of reported commercial sex [14].

Twenty eight (35 %) of those who had sex in the previous 12 months had more than one sexual partner, these findings were much lower than studies done in Agaro, Gonder and Addis Abeba [13, 15, 18]. The possible reason could be increased awareness about the negative effect of having multiple partners. Tentatively however, those few who had more than one partner were at a higher risk of acquiring diseases like STIS and HIV.

In this study, being a male 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 two times more likely to be practice premarital sexual intercourse as compared to female respondents (AOR: 2.3, 95% CI: 1.4-4.1). Similar studies show that male respondents were more than seven times to ever have premarital sexual intercourse as compared to female respondents [18]. This may be due to cultural norms that encourage and approve sexual experimentation of boys and the value given to virginity for girls.

In this study, watching pornographic video was associated with premarital sexual debut; students who watch video, movies or other entertainment programs were more than five times more likely to start pre-marital sexual debut than those not watching video, movies or other entertainment programs (AOR: 5.5, 95%CI: 2.7-11.2). The probable reason might be the video may initiate to practice what they watched in the movies.

Students who work to earn money were more than three times more likely to start pre-marital sexual debut than those who were not work to earn money (AOR: 3.2, 95%CI: 1.8-5.7). Those students who work to earn money may have exposed different persons in the working area and this may have a chance to committed sexual intercourse

Some limitations need to be considered when interpreting the results of this research. Due to the fact that this study deals with very personal and sensitive issues such as sexual practice and other risk factors related to it, obtaining an honest response among adolescent students was difficult. However, to minimize this effect, each respondent was briefed on the objective and value of the study and assured about confidentiality of the response.

V. CONCLUSIONS AND RECOMMENDATIONS

In conclusion, this study showed that a significant proportion of College students had engaged in premarital sex.

Personal desire, peer pressure and to maintain relationship with partner were the most frequently mentioned reasons for College students to begin premarital sex.

The study demonstrated that some sexually active students had multiple sexual partners and experiencing commercial sex.

Being male gender, working to earn money and attending video, movies or other entertainment programs were positively associated with premarital sex in the study area. Therefore, Regional health bureau, private college administrative, Bahirdar town zonal health department and NGOs should work on comprehensive sexual and reproductive health education program in response to the pressing needs of college Students must be promoted assertively in the study setting. Sex and adolescent reproductive health education should be included in the college curriculum at all levels so as to equip students with adequate knowledge about healthy sexual practice. The college administration and college teachers should take the initiative to bring about healthy sexual behavior among their students by strengthening anti AIDS and reproductive health clubs in the colleges.

Acronyms

AIDS Syndrome	Acquired Immune Deficiency
AOR	Adjusted Odds Ratio
BSC	Bachelor of Science
BSS	Behavioural Surveillance Survey
CI	Confidence Interval
COR	Crud Odds Ratio
DC	Data Collector
DHS	Demography Health Survey
HIV	Human Immune deficiency Virus
ID	Identification Card
PIs	Principal Investigators
PPS	Probability Proportional to Size
SPSS	statistical Package for Social Science
STIs	Sexually Transmitted Illnesses
WHO	World Health Organization

COMPETING INTERESTS

The author(s) declared no competing interests.

AUTHORS' CONTRIBUTIONS

Both Bekele Taye abd Tsion Nurie designed the study, conducted field work, analyzed data, interpreted findings,

and wrote the manuscript. All authors of the manuscript have read and agreed to its content.

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