

Research Article

Risky Sexual Practices and Associated Factors for HIV/AIDS Infection among Private College Students in Bahir Dar City, Northwest Ethiopia

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Background. Adolescents and young adults engage in risky sexual behaviours that may expose them to risk of contracting sexual transmitted diseases. The aim of this study was to assess risky sexual practices and associated factors for HIV/AIDS infection. **Methods.** A cross-sectional study was conducted in March 2012 among 790 college students. Self-administered questionnaire was used to collect the data. The data were analyzed using univariate, bivariate, and multivariate analyses with SPSS version 16 software package. **Results.** About 40.6% of sexually active respondents had risky sexual behaviours. Multiple sexual partners and unprotected sex were reported by 45.3% and 38.4% of sexually active respondents. Having multiple sexual partners was associated with alcohol use (AOR = 3.20; 95% CI: 2.02–5.08) and having a close friend who started sex (AOR = 5.99; 95% CI: 3.66–9.81). Unprotected sex was associated with marital status (AOR = 2.68; 95% CI: 1.55–4.64), alcohol intake (AOR = 2.19; 95% CI: 1.36–3.54), and frequency of visiting night clubs (AOR = 0.25; 95% CI: 0.12–0.52) for those who visit occasionally and (AOR = 0.45; 95% CI: (0.21–0.97) for those who visited at least once a week. **Conclusion.** Large proportions of students engaged in risky sexual behaviours and various risk factors were associated with risky sexual behaviours. Therefore, interventions targeting on alcohol intake, peer pressure, and attending night clubs are recommended.

1. Background

Today's adolescent and young adults constitute the largest cohort ever to enter the transition to adulthood. Evidence showed that nearly half of the global population was less than 25 years old and nearly 90% live in developing countries [1].

Adolescents and young adults have an increased interest in the opposite sex, highly concerned with physical and sexual attractiveness, and are frequently changing relationships. Besides, they are risk takers who are more likely to make decisions about the future without adequately considering the consequences [2].

It was declared that only less than half of all sexually active youth report using condoms, even where prevalence of human immune deficiency virus (HIV/AIDS) was high [3]. Studying the sexual behavior of youth is important because when compared to older adults, youth are at risk of contracting sexually transmitted diseases [2].

Young people were at the heart of HIV/AIDS pandemic; globally in 2010, out of estimated 2.7 million people newly infected with the virus 41% were young people [4]. In Ethiopia according to antenatal care sentinel surveillance (ANC), the prevalence of HIV/AIDS among young people of age 15–24 years was 2.6% [5].

Although HIV/AIDS affects all segments of the population, young people were largely affected by this disease and young females were largely affected than young males [6].

Young people were engaged in risky sexual activities, which could result in sexually transmitted diseases including HIV infection, and it was suggested that many young people have got information from different sources with regard to HIV/AIDS; however, the problem is to bring about a behavioral change [7].

Risky sexual behaviours encompass a variety of behaviours including premarital sex, multiple sexual partners, unprotected sex, and others, which may likely result in

contracting HIV/AIDS, unwanted pregnancies and unsafe abortions [8]. For the scope of this study, only multiple sexual partners and unprotected sex were studied.

Studies confirmed that having multiple sexual partners among young people is fairly a common behaviour. Accordingly, a study among Mbarara University students (Uganda) had indicated that students who did not visit religious sites had higher number of lifetime sexual partners compared to those who visit regularly [9].

In another study conducted among students of Ibadan University (Nigeria), 12% female and 16% male respondents had more than three sexual partners [10].

A similar study conducted among Lund University students (Uganda) indicated that 39% of sexually active students have had more than two sexual partners. The study further indicated that alcohol consumption was associated with a higher risk of having higher number of sexual partners among male students [11].

The prevalence of multiple sexual partners among Tanzanian college students was 42%; males were two times more likely to have multiple sexual partners compared to females [12].

According to Ethiopian demographic and health survey (EDHS), 1% of women and 4% of men aged 15–49 reported having had more than two sexual partners [13]. Moreover, a study conducted among Addis Ababa university students had confirmed that 37% of sexually debuted respondents had more than one sexual partner [14].

Condom use is an important tool in the fighting against the spread of HIV/AIDS; a truly effective protection usefully requires condom use at every sexual encounter. Studies revealed that though youths were engaged in a risky sexual behaviour, they were not using condoms consistently [11, 12, 14].

Evidence indicated that females were more significantly reported they or their partners did not use condom during their last sexual intercourse. Besides, substances used like alcohol and khat were significant predictors of inconsistent condom use [15–17].

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 risky sexual practices among private college students. However, there is no information on risky sexual practices among students attending privately owned higher educational institutions in Ethiopia. Therefore, the objective of the study was to assess the prevalence of risky sexual practices and associated factors among private college students in Bahir dar city.

2. Methods

A cross-sectional quantitative study design was conducted among private college students of Bahir dar city in March 2012. This study was conducted in the northwest part of Ethiopia at a distance of 563 kilometers from the capital city (Addis Ababa) among regular private college students in Bahir Dar city. There are eight private colleges in the city

which have regular programs with different fields of study; these private colleges are among many colleges in Amhara regional state in northwest of the country.

Bahir dar city is the capital city of Amhara regional state and is one of the cities in Ethiopia in which investment is rapidly growing and educational investment is one of those investments currently rising. Private colleges in the city host many students and are running different fields. According to the statistics obtained from the office of registrars of all colleges, there were a total of 3824 students enrolled in all programs, with 2218 female and 1606 male students.

All regular students of private colleges in Bahir Dar city enrolled in 2011/12 academic year and attending their education in the day program were eligible for this study.

The sample size was determined using single-population proportion formula. The proportion of risky sexual behaviour determined based on a in Addis Ababa University was 37% [16]. The following assumptions were used: a level of confidence 95%, a 5% marginal of error. Additional 10% allowance for none response rate and correction for multi-stage sampling design effect 2 were considered. The final number of students included in the study 790.

The respondents were selected from target population through multistage sampling technique and probability proportionate to size of the students from each private college in the city. The calculated sample size (790) was distributed in to each private college proportionally to the size of students. Departments were selected randomly from each college; then the sample size allocated to each college was distributed to each randomly selected department proportionally to size of their students. The sample size allocated for each department again distributed to each year of study. Eventually, the required number of participants was chosen from each year of study by using simple random sampling methods from list of students.

Data were collected using self-administered structured questionnaires. The questionnaire was adopted from reviewed literatures [18–20] and comprises four sections: Sections 3.1 and 3.2 socio-demographic characteristics of participants and their families containing 18 questions, Section 3.3 risk related variables of the study such as substance use (alcohol, khat, shisha, and cigarette use), pornographic view, attending night clubs, and having intimate friend who started sex consists of 11 questions and Section 3.4 sexual behaviours of the study participants such as ever started sex, number of sexual partners, condom use and others comprises 12 questions. The total questions included in the questionnaire were 41 with response options of open and close ended.

Seven postgraduate students as data collection facilitator and the principal investigator as supervisor were recruited during the field work. During the time of data collection, data collection facilitators were assigned to the selected sections. The students selected in the given section were given a questionnaire with an envelope and requested to read the consent form carefully to get informed verbal consent before they were enrolled in the study.

Getting informed consent, the data collection facilitators oriented the students how to fill the questionnaires properly, then after they told go ahead to start filling the questionnaires.

Moreover the data collection facilitators assisted the students on questions that students might encounter a problem and the principal investigator coordinate the overall process of the data collection. At the end the respondents put the completed questionnaires in the box ready for collection of questionnaires themselves.

The questionnaire was initially prepared in English and translated in to local language Amharic in order to obtain the required information from the respondents and was translated back to English to check for any inconsistencies or distortions.

Data collection facilitators were trained for two days to make them familiar with the questionnaires and the way how to orient and guide the study participants in filling the questionnaire format. Pretest was done among 40 randomly selected students from Bahir Dar polytechnic college. The data collection was completed within one day to avoid information contamination.

Data were double-entered onto the EPI-data Version 3.1 software by defining legal values for each variable and setting skip patterns. The double-entered data were validated and exported to SPSS version 16 software package.

Univariate and Bivariate analyses were computed to see the frequency distribution and to test whether there is association/difference/between risky sexual behaviour (multiple sexual partners and inconsistent condom use) and selected independent variables, respectively. Factors associated with risky sexual practices at bivariate were identified, and the variables with *P* value of 0.20 and less were taken to multivariable analysis and the model was built with backward elimination. Finally, the *P*-values less than 0.05 were considered statistically significant.

Ethical clearance was obtained from ethical review committee of Bahir Dar University and communicated with regional health bureau before the time of data collection. Letter of permission was obtained from the health bureau and each college. The confidentiality of information was maintained by excluding personal identifiers; data were collected after securing informed consent from every respondent.

3. Results

3.1. Sociodemographic Characteristics of the Study Participants. A total of 790 students completed the questionnaires of which 19 responses were excluded because of gross incompleteness, resulting in a response rate of 97.6%. Out of the total respondents 498 (64.6%) were females. More than four-fifth of the respondents (84.7%) were never married. The mean \pm SD age of the study population was 21.5 ± 2.44 years. Slightly more than half of the respondents (52.9%) were living alone in rented house without their family and the rest were living with family. Four hundred fifty-nine (59.5%) and 312 (40.5%) of the study participants were attending their education in health and nonhealth fields, respectively.

Three hundred eleven (40.3%), 237 (30.7%), and 223 (28.9%) respondents were at year one, two, and three, respectively. Moreover the study indicated that 36.8%, 27.2%, 33.1%, and 2.9% of respondents were visiting religious institutions regularly, once or twice a week, sometimes and never visited

TABLE 1: Sociodemographic characteristics of college students in Bahir dar city, March 2012.

Variables (<i>N</i> = 771)	Categories	Total <i>n</i> (%)
Sex	Male	273 (35.4)
	Female	498 (64.6)
Age	15–19	152 (19.7)
	2–24	535 (69.4)
	>24	84 (10.9)
Marital status	Married	118 (15.3)
	Single	653 (84.7)
Living circumstance	Rented	388 (50.3)
	With family	383 (49.7)
Years of study	Year I	311 (40.3)
	Year II	237 (30.7)
	Year III	223 (28.9)
Frequency of visiting religious sites	Regularly	284 (36.8)
	Once/twice a week	210 (27.2)
	Sometimes	255 (33.1)
	Never visit	22 (2.9)
Mothers education level	Illiterate	345 (44.7)
	Read and write	245 (31.8)
	1–8 grade	89 (11.5)
	9–12 grade	55 (7.1)
Fathers' educational level	Diploma and above	37 (4.8)
	Illiterate	159 (20.6)
	Read and write	284 (36.8)
	1–8 grade	115 (14.9)
Discussion of sexual issues with mother	9–12 grade	115 (14.9)
	Diploma and above	98 (12.7)
	Yes	216 (28)
Discussion of sexual issues with father	No	543 (70.4)
	I do not remember	12 (1.6)
	Yes	143 (18.5)
Discussion of sexual issues with father	No	616 (79.9)
	I do not remember	12 (1.6)

religious institutions, respectively. And more than half of the respondents (52.5%) got pocket money below average 296 Ethiopian birr per month, while 180 (23.3%) of the respondents got above 400 birr per month. Moreover 345 (44.7%) and 159 (20.6%) of the participants' mothers and fathers were illiterate, respectively, and 313 (61.5%) participants' family monthly income was below the average 2523 Ethiopian birr while 118 (23.1%) participants' families earn more than 3000 Ethiopian birr per month.

In terms of discussion on sexual issues between families and the study participants, only 216 (28.0%) and 143 (18.5%) of respondents discussed sexual issues with their mothers and fathers, respectively, (Table 1).

3.2. Risk-Related Factors for Risky Sexual Behaviours among College Students of Bahir Dar City. Out of the total 771

respondents 326 (42.3%) were reported to have an intimate friend started sexual intercourse. Alcohol and Khat were the most frequently used substances. Accordingly out of the total respondents 194 (25.0%) used alcohol, 139 (18.0%) consumed Khat, 37 (4.8%) used shisha and 15 (1.9%) used Cigarette; of the total substance users 33 respondents 16 (48.5%) males and 17 (51.5%) females were reported to use them regularly and 57 respondents 29 (51.0%) males and 28 (49%) females were used them once or twice a week. One hundred sixty two (54.5%) males and 202 (55.5%) females were exposed to pornographic movies. Besides, 153 (19.2%) of total respondents were confessed to attend night clubs; of these night club attendants 28 (18.3%) visited night clubs once or twice a week and 44 (28.7%) of them were attended at least once a week (see Table 2).

3.3. Sexual Behaviours of Private College Students in Bahir Dar City. This study indicated that out of the total respondents, 391 (50.7%) ever had sexual intercourse. The mean age of sexual commencement for both sexes was 18.7 years with standard deviation of 1.97. Higher number of female respondents (118 (63.4%)) had sex before they were 18 years. The study revealed that 356 student 43.3% males and 56.9% females had sex in the last 12 months. One hundred fifteen (65.0%) males and 140 (35%) females, had sex with more than one sexual partner in the past 12 months. The study further pointed out that only 45 (11.5%) respondents had used condom in their first sex. Moreover with regard to the frequency of condom use, 231 (59.0%) sexually active respondents were reported to use condom consistently, however; 106 (27.0%) and 44 (11.3%) of sexually active respondents acknowledged to use condom occasionally and never during their sexual activities respectively. Among respondents who were not using condom consistently 113 (44.4%) reported condom decreases sexual pleasure, 73 (28.7%) described fear of side effects and 47 (18.5%) because of religious reason. Besides, findings of this study declared that among respondents who did not initiate sexual intercourse, about 59.7% reported delayed sex to wait until marriage, 30.0% fear of HIV/AIDS and 8.2% because of religious reason (Table 3).

3.4. Logistic Regression Analysis between Multiple Sexual Partners and Predictor Variables among College Students in Bahir Dar City, March 2012. The multivariate analysis result (Table 4) revealed that risk of having multiple sexual partners among males was more than four times compared to females (AOR = 4.76; CI: 3.02–7.51), and students who were living alone in rented house were about two times risk to have multiple sexual partners (AOR = 2.02; CI: 1.25–3.27) compared to students who live with their families. There is strong positive association between year of study and having multiple sexual partners; it was found that year two and three students were more likely to have higher number of multiple sexual partners compared to year one students (AOR = 7.27; CI: 3.53–14.99) and (AOR = 9.23; CI: 4.52–18.83), respectively. Having an intimate friend who started sexual intercourse was the other predictor factor for multiple sexual partners, students who have an intimate friend started sexual intercourse were about six times risk of having multiple sexual partners compared to

TABLE 2: Percentage distributions of risk-related factors for risky sexual behaviours among college students in Bahir dar city, March 2012.

Risk-related factors (N = 771)	Sex of the respondents		Total n (%)
	Male	Female	
Having a close friend who started sex			
Yes	145 (44.5)	181 (55.5)	326 (42.3)
No	128 (28.8)	317 (71.2)	445 (57.7)
Khat use			
Yes	72 (51.8)	67 (48.2)	139 (18)
No	201 (31.8)	431 (68.2)	632 (82)
Alcohol use			
Yes	100 (51.5)	94 (48.5)	194 (25.2)
No	173 (30)	404 (70)	577 (74.8)
Shisha use			
Yes	21 (56.8)	16 (43.2)	37 (4.8)
No	252 (34.3)	482 (65.7)	734 (95.2)
Frequency of using substances			
Regularly	16 (48.5)	17 (51.5)	33 (4.3)
Once or twice a week	29 (50.9)	28 (59.1)	57 (7.4)
Sometimes	91 (51.4)	86 (48.6)	177 (22.96)
Never use	137 (27.2)	367 (72.8)	504 (65.3)
Viewed pornographic movies			
Yes	162 (54.5)	202 (55.5)	364 (47.2)
No	111 (27.3)	296 (72.7)	407 (52.8)
Frequency of viewing porn movies			
Never viewed	144 (29.9)	338 (70.1)	482 (62.5)
Once or twice a week	48 (46.2)	56 (53.8)	104 (13.5)
Sometimes	81 (43.8)	104 (56.2)	185 (24)
Visited night club			
Yes	71 (46.4)	82 (53.6)	153 (19.8)
No	202 (32.7)	416 (67.3)	618 (80.2)
Frequency of visiting night club			
Never visit	202 (32.7)	416 (67.3)	618 (79.5)
Sometimes	40 (49.4)	41 (50.6)	81 (10.5)
At least once a week	23 (52.3)	21 (47.7)	44 (5.7)
Once or twice a week	8 (28.6)	20 (71.4)	28 (3.63)

those who do not have (AOR = 5.99; CI: 3.66–9.81), and there is also statistically significant association between alcohol intake and having multiple sexual partners, respondents who ever drank alcohol were more than three times risk of having multiple sex partners (AOR = 3.20; CI: 2.02–5.08) compared to those who never drank.

3.5. Logistic Regression Analysis between Unprotected Sex and Predictor Variables among Private College Students in Bahir Dar City, March 2012. The risk of unprotected sexual

TABLE 3: Sexual behaviours of college students in Bahir dar city, March 2012.

Characteristics of respondents	Sex of respondents		Total <i>n</i> (%)
	Male	Female	
Ever had a sexual intercourse (<i>n</i> = 771)			
Yes	169 (43.2)	222 (56.8)	391 (50.7)
No	104 (27.4)	276 (72.6)	380 (49.3)
Age at first sex (391)			
<18 years	68 (36.6)	118 (63.4)	186 (47.6)
>19 years	100 (49.0)	105 (51.0)	205 (52.4)
Ever had sex in the last 12 months (<i>n</i> = 391)			
Yes	154 (43.3)	202 (56.7)	356 (91.0)
No	15 (42.9)	20 (57.1)	35 (9.0)
Number of sexual partners in the last 12 months (391)			
One	39 (21.8)	140 (78.2)	179 (45.8)
More than one	115 (65.0)	62 (35.0)	177 (45.3)
Used condom in the first sex (<i>n</i> = 391)			
Yes	24 (53.3)	21 (46.7)	45 (11.5)
No	143 (41.9)	198 (58.1)	341 (87.2)
Frequency of condom use (<i>n</i> = 391)			
Regularly	102 (44.2)	129 (55.8)	231 (59.0)
Some times	43 (40.6)	63 (59.6)	106 (27.0)
Never	21 (47.7)	23 (52.3)	44 (11.3)
Reason not use condom (<i>n</i> = 254)			
Lack of information	5 (45.5)	6 (54.5)	11 (4.3)
Cultural taboo	4 (40.0)	6 (60.0)	10 (3.93)
Religious reason	19 (40.4)	28 (59.6)	47 (18.5)
Fear of side effects	25 (34.2)	48 (65.8)	73 (28.7)
Decreases pleasure/satisfaction	49 (43.4)	64 (56.6)	113 (44.4)
Reason not have sex until study period (<i>n</i> = 380)			
Fear of AIDS/other STDs	41 (35.7)	74 (64.3)	115 (30.3)
Fear of family	1 (50.0)	1 (50.0)	2 (0.5)
Because of religious reason	12 (38.7)	19 (61.3)	31 (8.2)
Need to wait until marriage	42 (18.5)	185 (81.5)	227 (59.7)

intercourse was more than 2.68 times more likely among married students compared to unmarried ones (AOR = 2.68; CI: 1.55–4.64). Year of study was independent predictor of unprotected sex; year two and three students were more than two and four times risk of unprotected sex compared to year one (AOR = 2.95; CI: 1.29–6.74) and (AOR = 4.98; CI: 2.21–11.21), respectively. The study indicated that having close friends who started sex was independent predictor

for unprotected sex, showing that students who have an intimate friend who started sex were about two times more likely to have unprotected sex compared to those who do not have (AOR = 2.19; CI: 1.30–3.71). Besides, it was found that students who ever drank alcohol were 2.19 times more at risk of having unprotected sex compared to those who never drank, (AOR = 2.19; CI: 1.36–3.54). Moreover, the study declared a negative association between unprotected sex and frequency of visiting night clubs; respondents who visited night clubs sometimes and at least once a week were 75% and 55% less likely to have unprotected sexual intercourse compared to those who never visited night clubs (see Table 5).

4. Discussion

The aim of this study was to assess the risky sexual practices and associated factors for HIV infection among private college students in Bahir dar city. Accordingly the findings of this study indicated that 50.7% of the respondents were sexually active and this is consistent with similar studies done in southern Ethiopia where the figure was 49% [21] and 54% in Uganda for both sexes [22].

The prevalence of multiple sexual partners and unprotected sex among sexually debuted respondents of this study was 45.3%, and 38.4%, respectively, and this finding was consistent with Tanzanian higher education students, where multiple sexual partners and unprotected sex were 42% and 39.2%, respectively [23], whereas our finding was not in accordance with among AAU students, where multiple sexual partners and unprotected sex were 37% and 29%, respectively [14], and among higher education students of Cambodia where multiple sexual partners and unprotected sexual intercourse were 36% and 52.6%, respectively [16].

In our study the prevalence of risky sexual behaviours is slightly higher compared to AAU university students; this could be because of private college students are not living in a campus rather most are living in a rented house away from their supervising families and the house they may rent could be near bars, night clubs, and video houses, which could initiate substance use and attend the mentioned sites.

Students who were living in rented house, without their supervising families were about two times more likely to have multiple sexual partners compared to those who were living with their family. The reason could be peer pressure, students who are living in rented house with no family member pass most of their time with intimate friend but this could have result to share bad behaviour such as alcohol and khat use, in turn substance use could initiate sexual desire and result to have multiple sexual partners and other possible reason could be living free of family control by itself creates a room to initiate sex and have multiple sexual partners.

The findings of this study revealed that male respondents were more than four times likely to have multiple sexual partners than females, and this is consistent with Tanzanian college students, where males were two times more likely to have multiple sexual partners [23]. This finding and similar studies indicated that males were more likely to be engaged in having multiple sexual partners than females; according to the current study the reason could be substance use such as

TABLE 4: Factors associated with having multiple sexual partners among college students in Bahir dar city, March 2012.

Variables	Multiple sexual partners		OR (95% CI for OR)	
	Yes	No	Crude	Adjusted
Sex				
Male	115	158	5.12 (3.58–7.33)	4.77 (3.02–7.51)
Female	62	435	1.00	1.00
Age				
15–19	24	128	1.00	1.00
20–24	124	411	1.61 (0.99–2.60)	0.76 (0.39–1.49)
>24	29	53	2.81 (1.50–5.26)	0.66 (0.27–1.59)
Living condition				
Rented	135	253	4.33 (2.96–6.35)	2.02 (1.25–3.28)
Living with family	42	341	1.00	1.00
Years of study				
First year	12	299	1.00	1.00
Second year	72	165	10.87 (5.73–20.62)	7.27 (3.53–14.99)
Third year	93	130	17.83 (9.44–33.65)	9.23 (4.52–18.83)
Frequency of visiting religious sites				
Regularly	30	254	1.00	1.00
Once or twice a week	28	182	1.30 (0.75–2.26)	0.68 (0.32–1.42)
Sometimes	107	148	6.12 (3.89–9.63)	1.23 (0.65–2.33)
Never visit	12	10	10.16 (4.05–25.51)	2.09 (0.64–6.79)
Monthly pocket money in birr				
<150	45	191	1.00	1.00
151–250	30	137	0.93 (0.56–1.55)	0.075 (0.37–1.52)
251–400	48	140	1.46 (0.92–2.31)	0.92 (0.48–1.77)
>400	54	126	1.82 (1.15–2.87)	0.72 (0.38–1.36)
Having a close friend who started sex				
Yes	146	180	10.83 (7.08–16.57)	5.99 (3.66–9.81)
No	31	414	1.00	1.00
Khat use				
Yes	73	66	5.62 (3.79–8.33)	1.38 (0.82–2.31)
No	104	528	1.00	
Alcohol intake				
Yes	106	88	8.58 (5.89–12.51)	3.20 (2.02–5.08)
No	71	506	1.00	1.00
Shisha intake				
Yes	19	18	3.848 (1.973–7.507)	0.70 (0.29–1.71)
No	158	576		1.00
Watching pornographic movies				
Yes	133	231	4.75 (3.25–6.94)	1.44 (0.86–2.41)
No	44	363	1.00	
Frequency of viewing porno movies				
Never viewed	68	414	1.00	1.00
Sometimes	63	122	3.14 (2.11–4.68)	0.87 (0.42–1.82)
Once or twice a week	46	58	4.83 (3.04–7.68)	1.08 (0.48–2.45)
Visited a night club				
Yes	67	86	3.59 (2.46–5.26)	0.90 (0.08–10.36)
No	110	508	1.00	1.00
Frequency of visiting a night club				
Never visit	109	509	1.00	1.00
Sometimes	37	44	3.93 (2.42–6.37)	1.04 (0.53–2.04)
At least once a week	19	25	3.55 (1.88 – 6.67)	0.59 (0.25–1.41)
Twice or threetimes a week	12	16	3.50 (1.61–7.61)	1.66 (0.63–4.38)

TABLE 5: Factors associated with unprotected sex among private college students in Bahir dar city, March 2012.

Variables (<i>n</i> = 391)	Unprotected sex		OR (95% CI for OR)	
	Yes	No	Crude	Adjusted
Living condition				
Rented	115	158	1.73 (1.09–2.74)	1.42 (0.82–2.46)
Live with family	35	83	1.00	1.00
Marital status				
Married	55	45	2.52 (1.59–4.01)	2.68 (1.55–4.64)
Unmarried	95	196	1.00	1.00
Years of study				
Year I	10	61	1.00	1.00
Year II	51	83	3.75 (1.76–7.97)	2.95 (1.29–6.74)
Year III	89	97	5.60 (2.70–11.59)	4.98 (2.21–11.21)
F. visiting. RS				
Regularly	20	56	1.00	1.00
Once or twice/w	16	59	0.76 (0.36–1.61)	0.50 (0.21–1.18)
Some times	102	113	2.53 (1.42–4.498)	1.79 (0.91–3.55)
Never	12	13	2.59 (1.01–6.59)	2.52 (0.88–7.25)
Having a close friend who started sex				
Yes	117	144	1.98 (1.27–3.11)	2.19 (1.30–3.71)
No	33	97	1.00	1.00
Alcohol intake				
Yes	98	104	2.56 (1.68–3.90)	2.19 (1.36–3.54)
No	52	137	1.00	
Visited night clubs				
Yes	36	91	1.00	1.00
No	114	150	1.92 (1.22–3.03)	0.75 (0.12–4.61)
F. visiting n. club				
Never	115	148	1.00	1.00
Some times	13	54	0.31 (0.161–0.595)	0.25 (0.12–0.52)
At least once/w	14	26	0.69 (0.35–1.38)	0.45 (0.21–0.97)
Twice or three/w	8	13	0.79 (0.32–1.98)	0.53 (0.19–1.42)

F. visiting. RS: frequency of visiting religious places; F. visiting n. club: frequency of visiting night club.

khat and alcohol were more common in males and out of the total respondents who visit religious institutions regularly 69% were females indicating higher levels of religiosity is associated with fewer sexual partners in females, this is in accordance with other studies [16, 23], where religiosity seems to be a protective factor against a high number of sexual partners among females.

This study further declared that year two and three students were more than seven and nine times more likely to have multiple sexual partners, respectively, compared to year one; this justifies that as year of study increases the risk of having multiple sexual partners increases; this might be because of alcohol use, peer pressure, and increased level of extroversion. Accordingly the findings of this study indicated that the percentages of alcohol use out of the total users among year one, two, and three students, respectively, were 14.9%, 36.1%, and 49%.

Having a close friend started sex was the other predictor variable which showed statistically significant association

with multiple sexual partnerships; individuals who had sexually experienced friend were more than 5 times risk of having multiple sexual partners compared to those who did not have. This is consistent with other studies [24]. This indicates that the students are not only sharing their knowledge on their education with each other but also their risky sexual behaviours. Besides, most private college students in Ethiopia are living neither with their family nor in a campus, rather they live in rented houses with their intimate friend from whom they share both good and bad behaviours.

The findings of this study further explored that respondents who were using alcohol were more than three times likely to have multiple sexual partners compared to nonusers; this is in line with a study done among Slovakian college and Lund university students where alcohol consumption was associated with higher risk of having higher number of sexual partners [11, 17]. This could be because risk perception ability decreases with alcohol consumption, indicating that individuals who use alcohol were more likely to get infected

with HIV/AIDS and other sexually transmitted infections [25].

This study claimed that married individuals were about 2.68 times risk of having unprotected sexual intercourse compared to unmarried ones; this finding is consistent with EDHS 2005, where never-married individuals were more likely to use condom compared to married ones [26].

According to this study alcohol intake statistically affects condom use, students who drank alcohol were 2.19 times at risk of having unprotected sexual intercourse compared to those who never drank, and this is in accordance with several studies where alcohol use was highly correlated with inconsistent condom use [9, 15, 27]. The reason that individuals who drank alcohol might be engaged in unprotected sex was that alcohol limits the cognitive capacity of individuals and leads them to have unsafe sex [28].

Moreover respondents who attend night clubs occasionally and at least once a week were 75% and 55% less likely to have unprotected sexual intercourse compared to those never visit night club, respectively. This indicated that night clubs were one of the sites where HIV/AIDS likely to be acquired, as a result night club attendants were developed strong perceived vulnerability and treatment to HIV infection specially those less frequent attendees and could use condom in their sexual intercourse; but as frequency of attending night club increases, trend of decreasing condom use was observed.

5. Conclusion

Large proportions of students were engaged in multiple sexual partners and unprotected sex. Various factors such as sex, marital status, year of study, religiosity, having close friend who started sex, attending night clubs, and alcohol use among college students were associated with risky sexual behaviours. Therefore the following recommendations were given for the concerned bodies.

- (1) Concerned bodies: anti-AIDS clubs of the college, government organizations and nongovernment organizations need to teach about the consequences of risky sexual behaviors.
- (2) Religious leaders need to give attention to make students regularly visit religious services and teach them about the potential consequences of risky sexual behaviours.
- (3) Peers have greater influence on the positive and negative behavior of their friends. In order to protect college youth from risky sexual behaviors, colleges should focus on promoting peer educators and the way of peer discussion.
- (4) Based on the association between substance use with risky sexual behaviours, colleges and other concerned bodies need to focus on teaching the prevention of substance use.
- (5) Health education on the potential risk outcome of attending night club needs to be given by the college clubs, government and other concerned organizations.

- (6) Waiting until marriage is one of the means to delay sex and not to have risky sex. Therefore, teaching college youth to delay sex enables them not to be engaged in risky sexual activities.

Acronyms

AAU:	Addis Ababa University
AIDS:	Acquired immunoDeficiency syndrome
ANC:	Antenatal care
AOR:	Adjusted odds ratio
EDHS:	Ethiopian Demographic and Health Survey
HIV:	Human immunodeficiency virus
SPSS:	Statistical Package for Social Sciences
SRS:	Simple random sampling
STDs:	Sexually transmitted diseases
UNAID:	United nation agency for international development
WHO:	World health organization.

Conflict of Interests

Authors declared that they have no conflict interests.

Author's Contribution

Z. Alamrew conceptualized the research problem, designed the study, conducted field work, collected data, analyzed data, and drafted the paper for publication. M. Bedimo was involved in supervision of the field work, revision of the research design, data analysis and revision of the paper for publication. M. Azage contributed in the supervision of the research, revision the research design, statistical, and revision the manuscript. All authors of the manuscript have read and agreed to its content.

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