

Prevalence and associated factors of sexual violence among private college female students in Bahir Dar city, North Western Ethiopia^{*}

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ABSTRACT

Background: Despite the higher risk victimization of young women in Ethiopia, the prevalence of sexual violence and its determinants among college students were scarce, particularly in the study area. This study was undertaken to determine the prevalence and associated factors of sexual violence among female private college students in Bahir Dar city. **Methods:** A cross sectional study was conducted in April 2012 among 541 female college students in Bahir Dar city using multistage sampling technique. A pre-tested self-administered questionnaire was used. The data were analyzed in bivariate and multivariate logistic regression analysis with SPSS version 16 soft ware package. **Result:** The study revealed that the prevalence of sexual violence among female college students was 37.3%. Respondents whose childhood background from rural areas were more than four times likely to have had sexual violence (AOR = 4.51, 95%CI: 1.67 - 12.16). The odds of sexual violence were higher for those respondents who had a close friend who drank alcohol (AOR = 3.13, 95%CI: 1.09 - 8.97). Besides, respondents who had never discussed on reproductive health issues with their parents were more than four times

likely to have had sexual violence (AOR = 4.36, 95%CI: 1.40 - 13.56). **Conclusion:** This study shows that sexual violence among female college students is higher. Sexual violence is associated with certain variables such as rural childhood residence, having a close friend who drank alcohol, and not discussing reproductive issues with parents. Therefore, it is recommended that sexual violence needs due attention and remedial action from policy makers, college officials, parents, students and other concerned bodies.

Keywords: Sexual Violence; Female College Students; Bahir Dar City; and Ethiopia

1. BACKGROUND

According to the United Nations Declaration, violence against women includes any act of gender based violence that results in physical, sexual, psychological harm or suffering to women, including threats or such acts, as durable deprivation of liberty, whether occurring in public or private life [1].

In developing countries information tended to focus on problems indicating of women's health status has seen relatively scarce. For the health of women, it is important to focus on the safe motherhood initiative and to meet the full range of women's reproductive health needs. Sexual violence is the main component of overall violence against women; due to fear of universal stigma, evidence is still limited [2].

According to multi-country WHO study, it was found

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that 0.3% to 12% of women respondents reported being forced to have sex or to perform a sexual act that they did not want to by non-partners since the age of 15 years. The highest levels from 10% to 12% were reported in Peru, Samoa, and the United Republic of Tanzania city. The highest level of non-partner physical violence was reported in Samoa (62%) with the next highest being in Peru 28% and 32% in the city and province, respectively [3].

A study conducted among high school students in Addis Ababa and Western Showa indicated that the prevalence of performed rape and attempted rape was 5% and 10% respectively, and harassments was 74.3% [4]. Another high school based prevalence study among female students in Debarq, northwest Ethiopia reported the prevalence of performed and attempted rape as 8.8% and 11.5% respectively [5].

In Ethiopia, like any other third world countries, scientifically documented information regarding gender based violence is scarce. In general, evidences related to sexual violence in our country especially in college settings are scarce. To the best of our knowledge, studies related to sexual violence had not been conducted in the study area. Based on this understanding, it is important to investigate and document the prevalence and associated factors of sexual violence.

2. METHODS

2.1. Study Setting

Cross sectional study was conducted among female private college students in Bahir Dar town. Bahir Dar town which is a capital city of Amhara Regional state, located in Northwest part of the country and it is 565 km far from Addis Ababa, capital city of Ethiopia.

2.2. Participants

The study participants were all female private college students registered for the academic year 2012 in all of the colleges found in the study area. A total of 541 private college female students were involved in the study. Multistage stratified sampling was employed considering all private colleges in Bahir Dar town, departments and year of study in the sampling process for the selection of the study subjects. The study was excluded blind female students for a reason that they couldn't read and complete the self administered questionnaire and extension students.

2.3. Measurements

The dependent variable was "sexual violence" (it includes rape and harassment in their life time). The independent variable includes Socio-demographic character-

istics like age, marital status, religion, residence, department and year of educational level; Family background like Educational status of parents, living condition, family income; Sexual history like sexual activity, age at first sex, with whom doing first sex and number of sexual partner; Substance use such as drinking alcohol, chewing chat, smoking.

2.4. Data Collection

Data were collected using self-administered structured questionnaire. The questionnaire was adopted from reviewed literatures [6-8], translated to local language Amharic. Pre-test was done on 27 female students that were not included in the main survey and necessary changes were done to our questionnaire. Four supervisors were recruited to facilitate the data collection process. They were trained how to facilitate the data collection and contents of the questionnaire.

2.5. Data Analysis

Data was entered and analysed by SPSS V. 16. Bivariate analysis were carried out to see the association of each independent variable on the dependent variables and those who had less than 0.2 level of significance were remain in to the final models. Finally, stepwise multiple logistic regression analysis technique was carried out and p value of less than 0.05 was used as a cut off point for declaring the presence of association. Odds ratios and 95% confidence intervals were also computed.

2.6. Ethical Considerations

Before starting of the data collection process, ethical clearance was obtained from the department of public health, Bahir Dar University. Written consent to participate in the study was secured, while providing the self administered questionnaire. For this a one page consent letter was attached to the cover page of each questionnaire stating about the general purpose of the study, issues of confidentiality and consent of the study participant. Participants' confidentiality of information was kept by excluding names as identification in the questionnaire.

3. RESULTS

3.1. Socio-Demographic Characteristics of Study Subjects

From a total of 541 study participants required, 536 female students were involved in the study, which makes good response rate (99.1%). Of them 171 (31.9%), 160 (29.9%) and 205 (38.2%) were 1st year, 2nd year and 3rd year students, respectively. The mean age and standard

deviation of the respondents were 20.3 ± 1.8 years and more than 96.8% were below the age of 24 years. Majority 487 (90.9%) were orthodox Christians and 328 (61.2%) of the respondents reported that grow in urban areas. Concerning the marital status of the respondents, 78 (14.6%) of them were married, 141 (26.3%) of them had boyfriend and the rest 317 (59.1%) of them were not married or had no boyfriend. Current living condition of the respondents were reported 151 (28.2%) of the respondents were living alone, 241 (45%) were live with parents, 46 (8.6%) were live with husband/boyfriend, 59 (11.0%) and 39 (7.3%) of students were live with female friends and relatives respectively (**Table 1**).

3.2. Socio-Economic Status of Parents

The majority of students (96.3%) reported that they had support from their families if they face problem. About 79.3% of students reported that they received enough money according to their demand for education and other expenses whereas 20.7% of students did not receive enough money according to their demand for education and other expenses. The mean family monthly income of respondents was 3050.0 ± 1928.1 with a range 500 to 15,000 birr. Nearly 40% of students family had monthly income less than or equal to 2000 birr. Majority of respondents were receiving money on a monthly basis 266 (49.6%), 33 (6.2%) were receiving on a semester, 6 (1.1%) were supporters send money once in a year, whereas 224 (41.8%) respondents were families live in the vicinity and 7 (1.3%) students were no money send at all. Family controlling status over students behavior were reported to be loose or free in 50 (9.3%) of study participants (**Table 2**).

3.3. Substance Use of Students

Chewing chat, smoking cigarette/tobacco and drinking alcohol some day in their life was reported by 70 (13.1%), 15 (2.8%) and 173 (32.3%) of the respondents respectively. Thirty nine (22.5%) and 30 (17.3%) of respondents reported that they were drunken since joining of the college and drunken in this academic year respectively. Forty one (23.7%) of the respondents reported that they had either male or female friends who drunken currently (**Table 3**).

3.4. Sexual Experience

From the total respondents 246 (45.9%) reported that they had sexual experience. Majority of respondents (96%) were started sexual intercourse before the age of twenty one years old. The mean age and SD for having the first sexual intercourse was found to be 18.6 ± 1.6 year. Sixty three (25.6%) of the sexually active respon-

Table 1. Socio-demographic characteristics of study participants, in Bahir Dar town, Amhara region, North West Ethiopia, April 2012.

Characteristics	Frequency	Percent (%)
Department		
Secretary	104	19.4
Accounting	55	10.3
IT	138	25.7
Nursing	207	38.6
Pharmacy	15	2.8
Land administration	17	3.2
Age		
<20	182	33.9
20 - 24	337	62.9
≥ 25	17	3.2
Religion		
Orthodox	487	90.9
Muslim	39	7.3
Protestant	8	1.5
Other	2	0.4
Child hood residence		
Urban	328	61.2
Rural	208	38.8
Educational status of husband/boyfriend n = 219		
Illiterate	3	1.4
1 - 4 grade	1	0.5
5 - 8 grade	4	1.8
9 - 12 grade	20	9.1
Above 12 grade	185	84.5
I didn't know	6	2.7
Occupational status of husband/boyfriend n = 219		
Student	62	28.3
Teacher	33	15
Employed	116	53
Unemployed	8	3.7
Current living condition of respondents		
Living alone	151	28.2
With parents	241	45
With husband/boyfriend	46	8.6
With female friends	59	11
With relatives	39	7.3

Table 2. Socio-economic status of parent's of study participants, in Bahir Dar town, Amhara region, North West Ethiopia, April 2012.

Characteristics	Frequency	Percent (%)
Parents living condition		
Living together	397	74.1
Divorced/separated	28	5.2
Only mother alive	64	11.9
Only father alive	20	3.8
Both of them not alive	27	5
Educational status of father		
Illiterate	155	28.9
1 - 4 grade	102	19.0
5 - 8 grade	93	17.4
9 - 12 grade	49	9.1
Above 12	119	22.2
I don't know	18	3.4
Educational status of mother		
Illiterate	245	45.7
1 - 4 grade	107	20.0
5 - 8 grade	71	13.2
9 - 12 grade	45	8.4
Above 12	62	11.6
I don't know	6	1.1
Family monthly income		
≤2000	212	39.8
2000 - 4000	175	32.8
≥4000	146	27.4
Who Support for learning		
Parents	344	64.2
Siblings	116	21.6
Relatives	11	2.1
Husband	51	9.5
Boyfriend	7	1.3
Other	7	1.3
Amount of money received		
<550	257	48.3
550 - 1000	190	35.7
≥1000	85	16
Family control		
Tight	282	52.6
Average	204	38.1
Loose/free	50	9.3

Table 3. History of substance use of college female students in Bahir Dar city, North West Ethiopia, April 2012.

Characteristics	Frequency	Percent (%)
Chat chewing frequency n = 70		
Every day	2	2.9
Once/twice a week	18	25.7
1 - 3 in a month	24	34.3
Occasionally, <once a month	26	37.1
Alcohol drinking frequency n = 173		
Every day	1	0.6
One/two times a week	30	17.3
1 - 3 in a month	37	21.4
Occasionally, <once a month	105	60.7
Had drink since joining the college n = 173		
Yes	39	22.5
No	134	77.5
Had drink in this academic year n = 173		
Yes	30	17.3
No	143	82.7
Had a friend who drink alcohol n = 173		
Yes	41	23.7
No	132	76.3

dents reported that they had experienced more than one sexual partner in their life time (**Table 4**).

From the total of 246 respondents who reported that they are sexually active, 70 (28.5%) initiated sexual intercourse due to engagement in marriage, 63 (25.6%) due to peer influence, 50 (20.3%) initiated sex due to self desire, 20 (8.1%) started for economic support, 15 (6.1%) due to drunken, 10 (4%) initiated sex to pass exam/for mark, 9 (3.7%) due to false promise made, 6 (2.4%) being forced to have sex and 3 (1.2%) did for other reasons.

Sexual Violence

Among the total respondents, 37.3% (95%CI: 33.2% - 41.4%) reported any form of sexual violence. Sexual harassment was reported, 35.8% (95%CI: 31.7% - 39.9%) and 6.3% (95%CI: 4.2% - 8.4%) reported forceful sexual intercourse (rape) in their life time. Rape cases were not reported for their family or police. Different reasons were listed for not telling about the condition to anybody for family or reporting to legal body.

From the total of respondents 192 students who have experienced sexual harassment, perpetrators were re-

Table 4. Sexual experiences of private college female students in Bahir Dar town, Amhara region, North West Ethiopia, April 2012.

Characteristic	Frequency(N)	Percent (%)
Started sexual intercourse		
Yes	246	45.9
No	290	54.1
Age at first sexual intercourse		
	n = 246	
<19 years	119	48.4
19 - 21 years	117	47.6
22 years	10	4
With whom doing first sex		
	n = 246	
Boy friend	104	42.3
Husband	67	27.2
Teacher	3	1.2
Student	40	16.3
Strange	16	6.5
Neighbour	15	6
Other	1	0.5
Number of sexual partner in life		
	n = 246	
One	177	72
Two	43	17.5
Three	22	8.9
Four & above	4	1.6
Discussing reproductive health with parents		
Yes	279	52.1
No	257	47.9

ported to be boyfriend/husband 31 (16.2%), family member/other relatives 12 (6.2%), teacher 7 (3.7%), students 65 (33.9%), stranger 75 (39%) and other 2 (1%). In contrast to sexual harassment, the most frequent reported rape were intimate partners (boyfriend/husband) 20 (58.8%), family members/relatives 4 (11.8%), teacher 1 (2.9%), student 2 (5.9%), stranger 3 (8.8%) and 4 (11.8%) other.

3.5. Factors Associated with Sexual Violence

Factors associated with sexual violence, students with rural child hood residence were more than four times (AOR = 4.51, 95%CI: 1.67 - 12.16) more likely to experience sexual violence than those with urban residence.

Students who reported to have a friend who drink alcohol (be male or female friends) were found to be at a higher risk of experiencing sexual violence than those who didn't have a friend who drink alcohol (AOR = 3.13, 95%CI: 1.09 - 8.97). Moreover, students who had no chance to discuss personal affairs with parents were about four times (AOR = 4.36, 95%CI: 1.40 - 13.56) more likely to experience sexual violence than those who had the chance to discuss personal affairs especially on sexual issues with parents.

Age, religion, monthly family income and age of starting first sexual intercourse of the study participants didn't show any association with sexual violence. But all attributes of substance use (chewing, drinking of alcohol), educational year, marital status, current living condition, educational status of father, getting support from family, getting enough money, amount of money received, sexual activity, having more than one sexual partner, reasons for doing first sexual intercourse were found to be strong covariates of sexual violence in their life time on crude OR, none of them were associated after multivariate analysis (**Table 5**).

4. DISCUSSION

The prevalence of sexual violence was found to be 37.3% in their life time. The prevalence of any form of sexual violence that means sexual harassment and forced sexual intercourse (rape) was reported to be 35.8% and 6.3% in their life time respectively. Sexual violence among private college female students in Bahir Dar town was found to be a very common phenomenon.

A study conducted in Butajira among female high school and technical school students in 2006 revealed that the prevalence of sexual violence in their life time was reported 35% which is consistent with the corresponding value of our finding [9]. However, the finding of this study was lower as compared to the 2007 study conducted in Mekele among female higher learning institution students that revealed to be 45.4% in life time [6]. This could be due to the socio cultural and perception about sexual violence difference between the target populations. Our finding on sexual violence was higher as compared to national random surveys conducted in Barbados, Canada, Netherland, New Zealand, Norway and the United States revealed that 27% to 32% of women interviewed have been sexually abused during childhood [10,11]. This might be explained by the difference in study sitting and socio cultural contexts between the study populations.

A study conducted among high school students in Addis Ababa and Western show a indicated that life time rape was reported 5% which is consistent with the corresponding value of our finding [12]. But our finding on

Table 5. Association of selected factors and sexual violence among private college students in Bahir Dar town, Amhara region, North West Ethiopia, April 2012.

Variable categories	Sexual violence		OR (95%CI for OR)	
	yes	No	Crude OR	Adjusted OR
Residence (child hood)				
Urban	101	227	1	1
Rural	99	109	2.041 (1.425, 2.923)	4.505 (1.669, 12.161)
Educational year				
First year	85	86	1	1
Second year	48	112	0.434 (0.276, 0.681)	0.481 (0.133, 1.733)
Third year	67	138	0.491 (0.323, 0.746)	0.701 (0.214, 2.294)
Marital status				
Married	22	56	1	1
Have boyfriend	63	78	2.056 (1.135, 3.726)	2.156 (0.674, 6.895)
No	115	202	1.449 (0.841, 2.496)	2.755 (0.776, 9.782)
Getting enough money				
Yes	140	285	1	1
No	60	51	2.395 (1.566, 3.662)	0.833 (0.191, 3.634)
Chewing chat				
No	159	307	1	1
Yes	41	29	2.730 (1.635, 4.558)	0.439 (0.1397, 1.389)
Having a friend who drink alcohol				
No	52	80	1	1
Yes	32	9	5.470 (2.415, 12.392)	3.128 (1.090, 8.971)
Have more than one sexual partner				
No	78	105	1	1
Yes	51	12	5.721 (2.859, 11.449)	2.640 (0.945, 7.377)
Discuss on sexual issues with family				
Yes	50	229	1	1
No	150	107	6.421 (4.330, 9.520)	4.355 (1.399, 13.555)

life time rape was lower as compared to a study conducted in Addis Ababa University the prevalence of life time rape among female students was 12.7% [13]. This could be due to socio cultural and study setting between the target populations.

Our finding of life time rape was lower than the finding from street adolescents aged 10 - 19 years in Addis Ababa that showed 15.6% in the period of three months prior to the survey [14]. Differences in study targets and study setting might be the explanation for the difference of findings.

In our study the prevalence of forced sex (rape) was 6.3%. This finding disagrees with a study conducted in USA among adolescents 12% [15]. This might be due to

the difference in socio cultural characteristics of the study targets and the contexts of forced sex (domestic forced sex). The finding of the current study is in accordance with a study done in Addis Ababa 5%.

However, the magnitude of other forms of sexual violence especially sexual harassment was very low as compared to the finding of this same study 74.3% [4]. This could be due to lack of awareness of the study women about sexual harassment as a sexual violence.

According to a cross sectional study among female students of Addis Ababa University, the prevalence of sexual harassment was reported to be 58% in life time [13]. Sexual harassment in the present study was about 35.8%. This might be partly explained by self perception

about sexual harassment. That means some people may not consider harassment as crime while others may consider it. This perception may vary from place to place, person to person, culture to culture.

Sexual violence was significantly associated with; rural childhood residence, history of alcohol consumption, having drunken peers (male or female friends). Among those who were sexually violated and not violated for factors having nearly living families with money support as needed was statically significance.

Our study has assessed some factors which are stated as contributing factors for sexual violence. Current sexual violence among female students was significantly associated with those not discussing personal issue including reproductive health with parents was statically significance. This could lead to lack of confidence and life skills useful in challenging or negotiate sexual relation.

This study signifies that the problem of sexual violence is sustained and aggravated because of stigma, social conformation and poor enforcement of the law especially in effecting to practice. It is clear from this study that sexual violence is a significant problem among female students in colleges. Females were shown to be victims of various forms of sexual violence which ranges from unwanted touch to forced sexual intercourse.

5. CONCLUSIONS

This study showed that the prevalence of sexual violence among private college female students is a serious problem. The findings of this study indicated that the prevalence of sexual harassment and forced sexual intercourse (rape) were common phenomena.

Factors which contribute to sexual violence include childhood residence, more than one sexual partner, drunken male or female friends and do not discuss personal issue with parents. In addition to these factors, lack of communications on sexual issues between spouses was shown to contribute to the problem.

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