The Effect of Sexual Violence on Class Performance among Female Students of Mizan-Tepi University, South West Ethiopia

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Abstract

Background: While increasing females' access to education is a global priority, there are numerous barriers that impede significant progress in achieving in schools. There are many factors which can affect class performances among students. Among the factors victimization of sexual violence may be considered as one and important influencing factor.

Objective: This study was intended to assess the association between sexual violence and class performance among female students of Mizan-Tepi University.

Methods: Cross-sectional, institution based study was done to determine the association between sexual violence and class performance among female students of Mizan-Tepi university. A total sample of 604 were selected by using simple random sampling technique from the sampling frame based on population proportional to sample size. To assess the association between sexual violence and class performance t-test was done. Data was cleaned, coded and entered in to EPI data version 3.1. After cleaning data, it was transported in to SPSS. A P-value of less than 0.05 was considered significant.

Results: There was no significant association between harassment and attempted rape and class performance. But completed rape in life time, since joining university, and in current academic year was significantly and negatively associated with class performance.

Conclusion: Class performance of female students in Mizan-Tepi University was significantly and negatively associated with experiencing of completed rape. Urgent attention is needed from concerned bodies including the university management.

Keywords: Sexual violence; Class performance; Female students; Ethiopia

Introduction

While increasing females' access to education is a global priority, there are numerous barriers that impede significant progress in achieving in schools [1]. There are many factors which can affect class performances among students. Among the factors victimization of sexual violence may be considered as one and important influencing factor. For low achievement of class performance many factors can be considered. This factor may be emanating from personal related factors, university related factors, academic related factors and economic related factors. Among the university related factors the influence of male students, male teachers and other staff members and the surrounding environment play significant role [2]. The study conducted in Bahirdar university among female students indicated that students GPA (Grade Point Average) negatively but significantly correlated with the problems students encounter in the university [2]. The other study also showed rape victims had lower GPA [3].

The study conducted in Malawi noted that the effect of sexual violence and school dropout. For girls, several types of harassment and violence were associated with increased odds of school dropout and transitioning to marriage and motherhood. Being peeped at in the toilet was also associated with lower odds of English literacy for girls [4,5]. Girls' access to secondary education was undermined by barriers in the transportation sector including gender based violence and discrimination.

Despite huge influences of sexual violence on academic performances, there are scanty researches on assessment of the association between sexual violence and class performance. Therefore this study was intended to assess the association between sexual violence and class performance among female students of Mizan-Tepi University.

Methodology

Study design

Cross-sectional, institution based study was done to determine the association between sexual violence and class performance among female students of Mizan-Tepi university.

Study area and period

The study was conducted in Mizan-Tepi University which is found in Mizan-Aman and Tepi towns in Western Ethiopia, about 561 km far from Addis Ababa and close to the Sudanese border at an elevation of 1451 meters above sea level. The university had more than 5,000 students. Among these 2000 were females. It was inaugurated in May 2006. The university consists of six colleges and many departments under colleges. The study was conducted in March 2013.

Source population

The source population was all female students of Mizan-Tepi University.

Study population

The study population was female students of second and third year in six colleges.

Sample size

The sample size was determined by using single population proportion formula to estimate sample size.

$$n=(Z\alpha/2)^2 \text{ x } P \text{ } (1\text{-}P)/d^2$$

Where, n=Sample size

P=In similar study conducted among female students of Mekelle higher institutions estimated prevalence of sexual violence(sexual harassment) in lifetime was 35.4% [6].

d=Error allowed, 4 percent

Z=Z-score associated at 95% degree of confidence=1.96

$$n=(1.96)^2 \text{ x } 0.354 \text{ } (1\text{-}0.354)=549 \text{ } (0.04)^2$$

By considering 10% non-response rate, final sample size was

549+55=604

Sampling procedure

The university had 6 colleges. The list of female students of second and third year in each college was taken from registrar office and used as sampling frame. Study participants were selected by using simple random sampling technique from the sampling frame based on population proportional to sample size.

Data collection procedures

Data were collected by using pretested self-administered questionnaire. The questionnaire included background characteristics, sexual violence status and current cumulative GPA (Grade Point Average). The questionnaire was adopted from WHO multi country study on women health and life events [7,8]. It was translated in to Amharic and back to English by instructors of Mizan-Tepi University to ensure consistency. Five instructors from college of health sciences from the university were recruited and trained for two days on data collection. They were assigned to help respondents if they have questions, orient the students on the purpose of the study and clarify some terms when respondents do not understand. Since questionnaire contains sensitive questions respondents sat separately in selected class rooms. Boxes were put around the gate so that respondents put the questionnaire in to it when they finished.

Measurement of variables

Sexual violence: From the reported acts (YES responses) of completed rape, attempted rape and sexual harassment (unwelcome touches, comments and jocks), sexual violence was measured for the three time periods (before joining university, since joining university and current academic year). Life time sexual violence (completed rape, attempted rape and sexual harassment) was measured by adding at least one YES response for the time period of before joining university, since joining university and current academic year.

Class performance: From the reported achievements of current cumulative GPA, class performance was assessed.

Variables

Dependent variable

Sexual violence (Completed rape, attempted rape and sexual harassment)

Independent variables

Class performance

Data analysis procedures

Quantitative data was cleaned, coded and entered in to EPI data version 3.1. After cleaning data, it was transported in to SPSS (statistical package for social sciences) statistical package for analysis. Univariate analysis was done to calculate frequencies and proportions. To assess the association between sexual violence and class performance t-test was done. A P-value of less than 0.05 was considered significant.

Data quality management

Data quality was assured by pre testing the questionnaire, by using standardized questionnaire, by supervising data collectors for making clarifications to participants and by cleaning data before, during and after data entry.

Ethical consideration

Ethical clearance was approved and obtained from Addis Ababa University School of Public Health research and ethical committee. Permission was asked from Mizan-Tepi University. Informed consent was obtained from study participant. Participants were told the objectives of the study. The names of respondents were excluded from the questionnaire. Since the questionnaire contains sensitive questions respondents sat separately. Data collectors were trained on keeping confidentiality of the respondents.

Results

Back ground characteristics

Out of 604 female students who were invited to fill self-administered questionnaire 570 female students completed the questionnaire with response rate of 94.4%. The remaining questionnaires were discarded due to different reasons. Among these incompleteness and inconsistencies were major ones (4.1%).

Among the total of 570 students almost half of respondents 283 (49.6%) were in the age range of 18-20 years. The mean age was 21 years with standard deviation of +1.91 years. The minimum age was 18 years and maximum was 29 years. Most of respondents 296 (51.9%) were Orthodox Christians in religion and 21.4% were Protestants. Before joining the university 208 (36.5%) were living in Oromia region, where as 123 respondents (21.6%) were living in Amhara region. As childhood 311 (54.7%) of respondents were grown in urban area. One hundred sixty four (28.8%) and 149 (26.1%) respondents were from Natural science college and technology college respectively. Majority of the study participants (82.5%) were second year students. One third of study participants have boyfriend (Table 1).

Variables	Number	Percent
Age		
< 20 years	283	49.6
21-24 years	254	44.6
> 24 years	33	5.8
Mean + SD	21 + 1.91 years	
Religion		
Orthodox	296	51.9
Protestant	122	21.4
Muslim	91	16
Catholic	43	7.5
Others	18	3.2
Region before coming to college		
Oromia	208	36.5
Amhara	123	21.6
SNNPR	84	14.7
Tigray	74	13
Addis Ababa	64	11.2
Other	17	3
Childhood residence		
Urban	311	54.7
Rural	258	45.3
College		
Natural science	164	28.8
Technology	149	26.1
FBE	86	15.1
Agriculture	65	11.4
Social science	63	11.1
Health science	43	7.5
Education		
Second year	470	82.5
Third year	100	17.5
Have boyfriend		
Yes	190	33.3
No	380	66.7

Table 1: Back ground characteristics of female students of Mizan-Tepi university, March 2013 (N=570).

Sexual violence

Since joining the university 378 (66.3%: 95% CI 62.3, 70.2) were sexually harassed. This figure was 359 (63%: 95% CI 58.7, 66.8) in the current academic year. Among respondents 118 (20.7%: 95% CI 17.5, 24.3) faced completed rape in lifetime. Attempted rape after coming to the university and in current academic year were 112 (19.6%: 95% CI 16.5, 22.9) and 78 (13.7%: 95% CI 11, 16.8) respectively. Seventy seven (13.5%: 95% CI 10.8, 16.6) and 51 (8.9%: 95% CI 6.7, 11.6) were raped since coming to the university and in current academic year respectively. The life time prevalence of sexual harassment and attempted rape were 75.4% (95% CI 71.7, 78.9) and 33.5% (95% CI 29.6, 37.6) respectively (Table 2).

Variables	Number	Percent	95% CI
After joining university			
Sexual harassment	378	66.3	(62.3, 70.2)
Attempted rape	112	19.6	(16.5, 22.9)
Completed rape	77	13.5	(10.8, 16.6)
Current academic year			
Sexual harassment	359	63	(58.7, 66.8)
Attempted rape	78	13.7	(11.0, 16.8)
Completed rape	51	8.9	(6.7, 11.6)
Life time			
Sexual harassment	430	75.4	(71.7, 78.9)
Attempted rape	191	33.5	(29.6, 37.6)
Completed rape	118	20.7	(17.5, 24.3)

Table 2: Magnitude of sexual violence among female students of Mizan-Tepi University, March 2013 (N=570).

Class performance of the study participants

Majority of the study participants (86%) had a cumulative GPA between 2.00 and 3.25. The mean cumulative GPA was 2.678+0.467 (Table 3).

Variable	Frequency	Percentage
Cumulative GPA		
<2.00	77	14.9

2.00-2.75	187	36.2
2.76-3.25	206	39.8
>3.26	47	9.1
Mean + SD	2.678+0.467	

Table 3: Cumulative GPA of the study participants.

Associations between sexual violence and class performance

As shown in Table 4 there was no significant association between harassment and attempted rape and class performance. But completed rape in life time, since joining university, and in current academic year was significantly associated with class performance.

Characteristics	GPA Mean=2.678	Mean differences	T-test	Significance
Harassment Lifetime				
Yes	2.658	0.0809	1.752	0.08
No	2.739			
Since joining university				
Yes	2.654	0.0717	1.706	0.089
No	2.725			
Current academic year				
Yes	2.649	1.921	0.0790	0.055
No	2.728			
Attempted rape Lifetime				
Yes	2.654	0.0364	0.863	0.388
No	2.690			
Since joining college				
Yes	2.637	0.0509	1.016	0.31
No	2.688			
Current academic year				
Yes	2.646	0.0366	0.631	0.057
No	2.683			
Completed rape Lifetime				
Yes	2.505	0.2179	4.509	0.00
No	2.723			
Since joining college				
Yes	2.5216	0.1811	3.134	0.002
No	2.7027			
Current academic year				
Yes	2.485	0.2119	3.060	0.002
No	2.697			

Table 4: Comparison of class performance among sexually violated and non-violated female students of Mizan-Tepi University.

Discussions

This study used the data which was collected in March 2013 for the purpose of analysis of the association between substance use and sexual violence namely, sexual harassment, attempted rape and completed rape. The results on socio-demography and experiencing of sexual violence may be referred from the study [9]. In this paper the

author analyzed the association between sexual violence and class performance. Sexual violence was measured from experiencing of sexual harassment, attempted rape and completed rape. The experiencing of sexual violence was calculated separately in three separate durations, since joining the university, in current academic year and in life time. Class performance was measured by cumulative GPA of students based on their reports. In this study class performance was among those who are sexually violated even if it was not significant in the case of sexual harassment and attempted rape. Experiencing of completed rape was significantly associated with class performance. The significance of the association was seen for completed rape since joining university, current academic year and in life time. This shows that sexual violence specially experiencing of completed rape is important factor that can negatively affect school performance of female students. This result goes in line with other studies [1-5]. The study conducted in Bahirdar university among female students indicated that students GPA was negatively but significantly correlated with the problems students encounter in the university [2]. The other study also showed rape victims had lower GPA [3].

The study conducted in Malawi noted that for girls harassment and violence were associated with increased odds of school. Being peeped at in the toilet was also associated with lower odds of English literacy for girls [4,5].

Conclusion

In this study class performance of female students in Mizan-Tepi University was significantly and negatively associated with experiencing of completed rape. Urgent attention is needed from concerned bodies including the university management.

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