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## RESEARCH ARTICLE

### Risk Factors for Gender-Based Violence among Female Students of Gonder Teacher' Training College, Gonder, Northwest Ethiopia: A Cross-Sectional Study

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#### Abstract:

#### Background:

Violence against women is the world's most prevalent, pervasive and enduring problem. Sexual violence appears to be particularly great among adolescent girls of Sub-Saharan African countries, including Ethiopia.

#### Methods:

A cross-sectional survey was conducted from January to February 2018, and 322 participants were selected via a stratified sampling technique. Data were entered using Epi-data version 3.1 and exported to SPSS version 21 for analysis, then bivariate and multivariate logistic regression was employed to see statistically significant factors.

#### Results:

Lifetime prevalence of Gender-based violence was found to be 35.1% (95% CI: 29.9 - 40.3). Risk factors significantly associated with sexual violence were living alone (AOR = 4.3 95% CI: 1.03, 18.09), having two or more number of sexual partner in life (AOR = 11.5 95% CI: 2.80, 47.16), lack of open discussion between parents and daughters about reproductive health issues (AOR= 5.05 95% CI: 1.37, 18.55), being third year student 9.06(1.96, 41.94), strict parenting style over the girls behavior (AOR = 3.4 (1.04,10.72), alcohol consumption (AOR = 8.3 95% CI: 2.57, 27.00), use of khat (AOR = 11.05 95% CI: 3.53, 34.60), and monthly financial support to the girls from family (AOR= 0.1, 95% CI: (0.03, 0.73).

#### Conclusion:

The prevalence of Gender-based violence among female college students in Gonder town was high. Attention should be paid to the reduction of the prevalence and those risk factors of Gender-based violence.

**Keywords:** Factors, Gender-based violence, Female students, Ethiopia, Risk factors, Relationships.

#### Article History

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## 1. INTRODUCTION

According to the World Health Organization (WHO), Sexual and Gender-Based Violence (SGBV) refers to any act that is perpetrated against a person's will and is based on gender norms and unequal power relationships [1]. Violence against women is the world's most prevalent, pervasive, and systematic problem. It is a universal scourge on women and their families that affects every society with no geographical boundaries, culture or wealth [2]. Worldwide, one in three women will be physically or sexually harmed, and one in five

will experience rape or attempted rape in their lifetime [3].

In developing countries, gender-based violence is a serious problem, as the rate of violence is high and takes place in the context where the risk of HIV is high [4]. There have been reports of gender-based violence in educational settings worldwide [4].

The risk of experiencing gender-based violence appears to be particularly high among adolescent girls of Sub-Saharan Africa [2]. In Sub-Saharan African countries, the prevalence of forced first sexual intercourse among adolescent girls aged 12-19 years ranges from 15 to 38% [2, 5].

A study has shown that the prevalence of intimate partner

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violence and gender-based violence against women is high [6]. A recent study conducted in south-central Ethiopia reported that 49% and 59% of women were physically and sexually abused by their partners at some point in their life, respectively [6].

World Health Organization and other stakeholders are fighting for the rights of women to be reproductively and sexually healthy. However, this goal remains a dream to women as their sexual rights are dishonored. It is a cause for concern to note that gender-based violence is increasing as in Zimbabwe, an average increase of 78% in the reported cases at three institutions over the 2 years, 2009 and 2010 have been observed [7].

Gender-Based Violence (GBV) is widely recognized as an important public health problem, both because of the acute morbidity and mortality associated with assault and because of its longer-term impact on women's health, including chronic pain, gynecologic problems, sexually transmitted diseases, depression, post-traumatic stress disorder, and suicide [8].

In Africa, especially in Ethiopia, like any other third world country, scientifically documented information regarding gender-based violence is scarce. In general, evidence related to gender-based violence in our country, especially in college setup, is scarce. Studies related to gender-based violence had not been conducted in the study area. Thus, these studies have assessed the prevalence and associated factors of Gender-based violence.

### 1.1. Research Question

(1) What are the possible risk factors for gender-based violence of Gonder Teacher Training College female students.

(2) What is the magnitude of gender-based violence of Gonder Teacher Training College female students.

## 2. METHODS AND MATERIALS

### 2.1. Study Design and Setting

An institution-based cross-sectional study was conducted at Gonder Teachers' Training College (GTTC), in Gonder City, northwest Ethiopia. GTTC is one of several regional Teachers' Training Colleges in Ethiopia established specifically to yield competent teachers for primary schools (grades 1-8). Data were collected from January to February 2018.

### 2.2. Participants

There were a total of 1268 regular female students registered for the academic year of 2018 in the college. A total of 322 GTTC college female students were involved in the study. The stratified random sampling method was employed, where each year of study was considered stratum. The year of the study was used in the sampling process for the selection of the study subjects. We excluded students with visual impairment, as they could not complete the self-administered

questionnaire, and extension students.

### 2.3. Measurements

The dependent variable was gender-based violence (it includes rape and harassment in their lifetime). The independent variable included socio-demographic characteristics, such as age, marital status, place of origin, income, religion, ethnicity, living condition, number of sexual partners in their life, substance use like chat, alcohol, and other drugs (shisha and marijuana); Family backgrounds like income, educational status, parenting style, intimacy and living condition.

### 2.4. Data Collection Procedure and Instrument

A structured self-administered questionnaire was used. Gender-based violence was assessed using a sexual abuse history questionnaire, which has 6 items. A total score ranging between 0-6 to measure Gender-based violence and the cut of the score has  $> 1$ ; it has sensitivity and specificity 88% and 91%, respectively [9]. Alcohol misuse was assessed using CAGE, which has 4 items. A total score ranging between 0-4 to screen for alcohol dependence and abuse. The cut of the score has  $> 2$ ; it has sensitivity and specificity (0.71 and 0.90, respectively [10]. The questionnaire was translated into the Amharic language, and then back-translation was done by another expert to check the consistency of meanings. Data were collected by four BSc health workers after trained them. The questionnaire was pre-tested on 5% of female students' in another college, which is not included in the study before the actual study. The data collectors were trained on the data collection tools and data collection procedures. To check for completeness of the collected data, we did regular supervision of the data collection process, like and checked the collected data at the end of each data collection day.

### 2.5. Data Processing and Analysis

The quantitative data were entered into Epi-data version 3.1 and then exported to SPSS version 21 for analysis. The data were presented in tables and figures. We did bivariate logistic regression analysis to see the association between explanatory and outcome variables. To control the effect of confounding factors and to get independently associated variables, each variable that has a p-value of  $< 0.25$  in the bivariate analysis was entered into a backward stepwise multiple logistic regression model. In multiple analyses, associations with p-values  $< 0.05$  in Wald's test model were considered to be statistically significant. Finally, the result was displayed using figures and tables.

### 2.6. Ethical Considerations

Ethical approval was received from the institutional review board of Tseda Health Science College. Verbal consent was obtained from the study participants. The participants' confidentiality was ensured, and their identity was not revealed. The data given by the participants was used only for research purposes.

**Table 1. Socio-demographic characteristics of study participants, in GTTC, Amhara region, North-east Ethiopia, 2018.**

Characters		Frequency (n=299)	Percent (%)
Age	15-19	159	53.2
	20-24	92	30.8
	25-29	35	11.7
	30-34	13	4.3
Current living condition	Living alone	124	41.5
	Living with parents	29	9.7
	Living with husband/boy friend	27	9
	Living with a female friend	104	34.8
	Living with relatives	15	5
Marital status of the respondent	Single	187	62.5
	married	33	11
	divorced	56	18.7
	widowed	12	4
	separated	11	3.7
Ethnicity	Amhara	8	2.7
	Oromo	262	87.6
	Gurage	22	7.4
	Tigre	7	2.3
Year of study	First	99	33.1
	Second	101	33.8
	Third	99	33.1
Place of origin	Urban	74	24.7
	Rural	225	75.3
Source of financial support	Parents	242	80.9
	relative	20	6.7
	husband	22	7.4
	boy friend	11	3.7
	others	4	1.3
The frequency of financial support	Monthly	88	29.4
	every semester	131	43.8
	once in year	32	10.7
	not at all	39	13
	others	9	3
Income per year in ETB	0-549	73	24.4
	550-1199	76	25.4
	1200-1999	42	14
	>=2000	108	36.1
Having boy friend	Yes	95	37.3
	No	160	53.5

### 3. RESULTS

#### 3.1. Socio-Demographic Characteristics of Study Subjects

From 322 students, complete data were obtained from 299, making a response rate of 92.9%. The remaining 7.1% were incomplete, while others did not return to the data collectors at all. Among the total respondent, almost all students from each year of studies were equally represented, *i.e.*, 2nd year (33.8%), 1st and 3rd-year students 33.1% each (Table 1).

The mean age of the respondents was 21 years old, (standard deviation (SD)  $\pm$  3.683). Most of the participants were Ethiopian Orthodox Christians; 90 (30.1%). Most of the participants were Oromos; 262 (87.6%). The majority of the participants were single; 187 (62.5%) While 225 (75.3%) of them were born and brought up in rural areas. Most of the students (80.9%) were supported by their families. Likewise, most of the respondents were receiving money on a semester basis (43.8%). Most of 108 (36.1%) having more than or equal to 2000 annual income in ETB. Among the total respondents, the majority of 116 (38.8%) of them had only one sexual

partner in their lifetime (Table 1).

#### 3.2. Parental Characteristics of Study Participant's

One hundred twenty-three (41.1%) of the respondents had a habit of discussing reproductive health issues with their parents. Most of the respondents (58.9%) had literate mothers and 76.9% of the respondents had literate fathers. The mean family annual income of the respondents was 36,395.57  $\pm$  61,547.6 birr, with the range from 1,980 to 720,000.00 birr. The leading parenting style was reported to be strict, *i.e.*, 40 (13.4%) (Table 2).

#### 3.3. Forms of Gender-based Violence and Sexual Related History of the Respondent

Among the total respondents, the majority; 116 (38.8%) of them have experienced only one sexual partner in their lifetime. Ninety-four (31.4%) of students had no sexual partner in their lifetime. For discussing reproductive health with parents, 123 (41.1%) discuss their sexual issues with their parents. Mechanisms used by the perpetrator to have forced sex

are being physical 7 (2.3%), threaten with a knife and gun 10 (3.3%), threaten with words 33(11.0%), by income support 7 (2.3%), due to drunken 13 (4.3%), to pass the exam/for mark 9 (3%) and by giving drugs 3 (1.0%).

From a total of 105 respondents who encountered Gender-

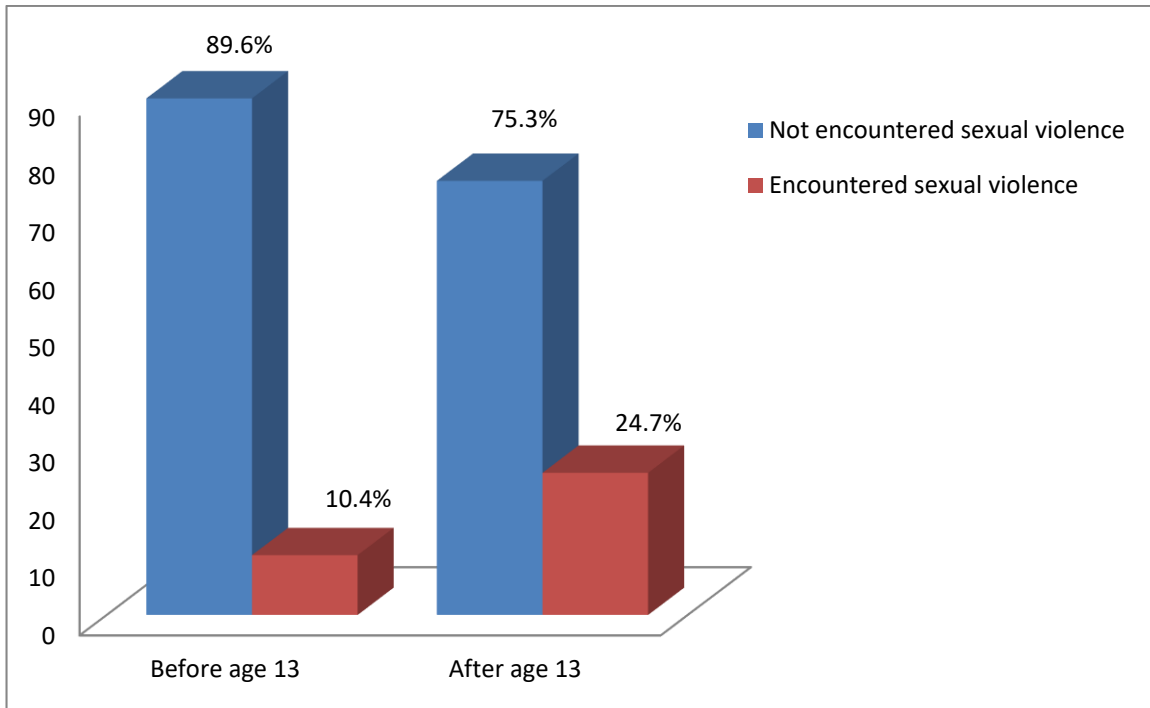
based violence majority, 15 (5%) ever exposed to the sex organs of the perpetrator before 13 years, while 37 (12.4%) were forced to have sex after age 13. The majority (24.7%) of participants reported that they had been sexually violated after the age of 13 (Table 3 & Fig. 1).

**Table 2. Socio-demographic status of parents of study participants, at GTTC in Gonder town North-east Ethiopia, 2018.**

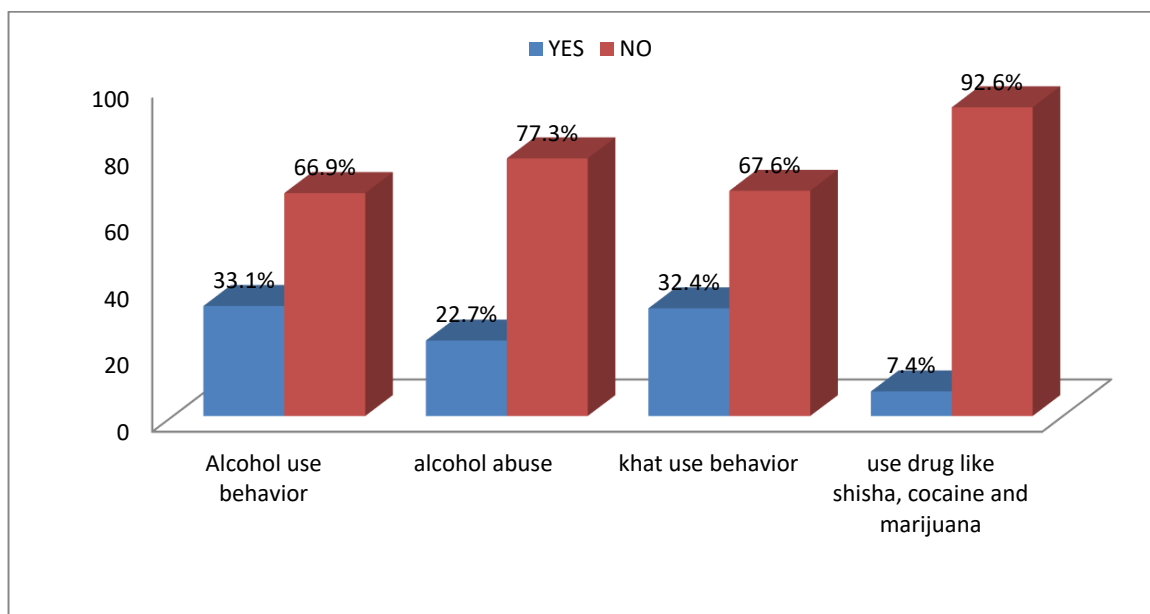
Character		Frequency (n=299)	Percent (%)
Parents living condition	Living together	234	78.3
	divorced/separated	21	7.0
	only mother alive	24	8.0
	only father alive	10	3.3
	both of them not alive	10	3.3
Educational status of a father	Illiterate	40	13.4
	1-4_grade	75	25.1
	5-8_grade	71	23.7
	9-12_grade	44	14.7
	above_12 grade	40	13.4
	I don't know	29	9.7
Educational status of a mother	Illiterate	99	33.1
	1-4 grade	92	30.8
	5-8 grade	54	18.1
	9-12 grade	17	5.7
	Above 12	13	4.3
	I don't know	24	8.0
Family annual income in ETB	0-13199	69	23.1
	13200-23999	61	20.4
	24000-35999	84	28.1
	>=36000	85	28.4
Parenting style	Restrict	157	52.5
	Average	102	34.1
	Loose	40	13.4

**Table 3. Forms of sexual violence and sexual related history of Gonder teacher training college female students in Gonder town, North-east Ethiopia, 2018.**

Character	Number (%) Before 13 year		Number (%) After 13year		Number (%) Life time sexual violence	
	Yes	No	Yes	No	Yes	No
Forms of sexual violence						
Ever exposed the sex organs of their body to the victim	15(5)	284(95)	29(9.7)	270(90.3)	105(35.1)	194(64.9)
Ever threatened to have sex with the victim	7(2.3)	292(97.7)	35(11.7)	264(88.3)		
Ever touched the sex organs of the victim	5(1.7)	294(98.3)	36(12)	263(88)		
Ever made you touch the sex organs of their body	4(1.3)	295(98.7)	31(10.4)	268(89.6)		
Ever forced the victim to have sex	11(3.7)	288(96.3)	37(12.4)	262(87.6)		
had any other unwanted sexual experiences not mentioned above	3(1)	296(99)	2(0.7)	297(99.3)		
<b>Sexual related history of the respondent</b>						
Character	N (%)		N (%)			
	Yes	No				
Discussing reproductive health with parents	123(41.1)	176(58.9)				
Number of sexual partner in life						
One	116(38.8)					
two	45(15.1)					
three	34(11.4)					
four and above	10(3.3)					
I haven't	94(31.4)					



**Fig. (1).** Encountered gender based violence before and after age 13 among female students at GTTC in Gonder town, January to February 2018.



**Fig. (2).** Substance use history of female students at GTTC in Gonder town Jan to Feb 2018.

**3.4. Substance use History of the Respondents**

Of the total respondents, 99(33.1%) used alcohol, and of these, 68 (22.7%) scored > 2 on a four-item alcohol abuse identification test, which indicates they abused alcohol. Twenty-two (7.4%) and 97 (32.4%) of the respondents used drugs and chewed Khat in their lifetime, respectively (Fig. 2).

**3.5. Factors Associated with Gender-based Violence**

Students who were in the third year had a higher risk of lifetime gender-based violence (AOR = 9.06 95% CI: 1.96, 41.95) than second-year students. The same is true in the case of a strict parenting style as the ratio of the likelihood of having gender-based violence was 3.34 times higher (AOR =3.35,95% CI: 1.04, 10.72) than in those with the average family control

system (Table 4).

In those who had a history of alcohol consumption and khat chewing, the likelihood of lifetime gender-based violence is around 14 times (AOR =13.8 95%CI: 4.51, 42.45) and 12 times (AOR = 11.5 95% CI: 3.88, 34.47) more likely than those who did not have a history of alcohol consumption and khat chewing, respectively. The likelihood of experiencing lifetime gender-based violence was 90% less likely among those students who had a chance to discuss personal affairs with parents than students who had no chance to discuss personal affairs, especially on sexual issues with parents (AOR= 0.1 95%CI: 0.05,0.54). Lastly, having one or number of sexual partners in life was around three times (AOR 2.9 95%CI: 0.10, 9.79), more likely to experience Gender-based

violence than those who had no one or more number of the sexual partner in their life (Table 4).

Variables having association in the final model analysis such as all attributes of substance use (chat chewing, drinking of alcohol, use drug), place of origin in rural areas, tender (age group > or = 25) age, lack of discussing personal affairs with parents, having more than one sexual partner in life, income per year (550-1199, and 1200-1999), living alone, students receiving money on a semester base, the third year students. Regarding family history, those who reported that their mother's educational status was 1-4 grades, annual income of a family in ETB and parenting style over the respondent's behavior were found to be strong covariates of Gender-based violence in their lifetime on crude OR (Table 4).

**Table 4. Multiple logistic regression: Factors associated independently with sexual violence among college female students in GTTC, North-east Ethiopia, 2018(n=299).**

Character	COR(95% CI)	AOR(95%CI)
<b>Age</b>		
15-19		Reference
20-24	1.5(0.89, 2.65)	1.7(0.33, 8.77)
>=25	3.3(1.72, 6.55)	3.9(0.54, 28.59)
<b>Current living condition</b>		
living alone	3.8 (2.009, 7.25)	1.09(0.24, 5.22)
with female friend	0.5 (0.27, 1.21)	5.4(0.97, 33.17)
Others	Reference	Reference
<b>Marital status</b>		
Single	Reference	Reference
Divorced	1.8(0.99, 3.37)	1.4(0.20, 10.10)
Others	1.08(0.57, 2.04)	1.2 (0.23, 6.49)
<b>Study year</b>		
First	0.3(0.17, 0.70)	1.3(0.34, 5.55)
Second	Reference	Reference
Third	3.6(2.02, 6.51)	9.06(1.96, 41.94)*
<b>Place of origin</b>		
Urban	Reference	Reference
Rural	2.3(1.28, 4.39)	0.3(0.06, 1.90)
<b>Frequency of financial support</b>		
Monthly	0.4(0.27, 0.88)	0.2(0.05, 1.22)
every semester	Reference	Reference
Others	0.7(0.39,1.26)	1.1 (0.21, 6.25)
<b>Student's annual income per year in ETB</b>		
0-549	0.5(0.25, 1.05)	0.5(0.04, 7.40)
550-1199	1.9(1.01, 3.4)	1.2(0.16, 10.10)
1200-1999	2.4(1.15, 4.96)	0.3(0.02, 6.03)
>=2000	Reference	Reference
<b>Family annual income in ETB</b>		
0-13199	2.1(1.03, 4.25)	3.2(0.74, 14.15)
13200-23999	2.4(1.17, 4.96)	2.2(0.47,10.43)
24000-35999	2.4(1.27, 4.84)	0.5(0.11, 2.54)
>=36000	Reference	Reference
<b>Discussing reproductive health issue with parents</b>		
Yes	Reference	Reference
No	20.8(9.18, 47.21) 0.1 (0.05, 0.54)*	
<b>Number of sexual partner in life</b>		

(Table 4) contd....

Character	COR(95% CI)	AOR(95%CI)
>=one	8.3(3.97, 17.43)	2.9(0.10, 0.98)*
I haven't Reference		Reference
<b>Parents living condition</b>		
living together	Reference Referee	
divorced/separated	1.09(0.44, 2.76)	0.9(0.11,8.006)
Others	0.7(0.37, 1.51)	0.6(0.09, 3.92)
Continuation of Table 4: Multiple logistic regression: Factors associated independently with sexual violence among college female students in GTTC, North-east Ethiopia, 2018(n=299)		
<b>Educational status of father</b>		
Illiterate	1.02(0.45, 2.32)	6.8(0.63, 75.31)
1-4 grade	Reference	
5-8 grade	0.9(0.47, 1.92)	0.9(0.12,7.56)
9-12 grade	1.3(0.62, 2.91)	0.7(0.08, 6.19)
Above 12	1.9(0.88, 4.23)	0.7 (0.05, 12.60)
I don't know	1.1(0.45, 2.77)	2.1(0.17, 26.69)
<b>Educational status of mother</b>		
Illiterate	Reference	
1-4 grade	0.4(0.25, 0.85)	0.3(0.05, 1.99)
5-8 grade	1.1(0.58, 2.18)	1.2(0.13, 12.12)
>= 9 grade	0.4(0.19, 1.17)	1.7(0.09, 34.39)
I didn't know	0.3(0.12, 0.99)	0.7(0.04, 12.47)
<b>Parenting style</b>		
Restrict	6.4(3.00,13.61)	3.4(1.04,10.72)*
Average	Reference	
Loose	93(26.90,321.06)	7.1(0.82, 61.90)
<b>Alcohol use behavior</b>		
Yes	54.6(26.33, 113.39)	13.8(4.5, 42.45)*
No	Reference	
<b>Alcohol abuse</b>		
Yes	26.3(12.18, 57.06)	0.7(0.05, 9.97)
No	Reference	
<b>khat use behavior</b>		
No	Reference	
Yes	50.8(24.82, 104.05)	11.5(3.87,34.47)*
<b>Use drug like shisha, cocaine, and marijuana</b>		
Yes	4.4(2.04, 9.51)	4.3(0.47, 44.70)
No	Reference	

Note: Variables which show statistically significant association during the multiple logistic regression

-Other living condition (parents, relative and husband)

-Others frequency of financial support (per year, not at all)

-Another marital status (married, separated & widowed)

#### 4. DISCUSSION

In this study, an attempt was made to assess the prevalence and associated factors of gender-based violence. The prevalence of gender-based violence was high, i.e., 35.1% (95% CI: 29.9 - 40.3). Similarly, the study conducted in Mekelle reported a lifetime prevalence of gender-based violence to be 45.4% [11]. The difference in tools used, sample size determined, and characteristics of involved study participants could be some of the reasons. However, this finding is consistent with findings of studies conducted in Namibia, Zambia, and Malawi, which range from 29.4% to 36.4% [12]. Likewise, the current finding is consistent with the random international surveys conducted in Australia, *i.e.*, 35% [13]. However, it is higher than studies conducted in Botswana,

Mozambique, South Africa, and Swaziland, ranging from 14.7% to 21.5% [12]. This might be explained by the difference in the study setting, socio-cultural contexts, and sample size between the study populations.

Of the strongly associated factors in this study, a living condition is one of the findings as living alone increased Gender-based violence more than 4 times compared to those living with others (parents, relative, husband), (AOR= 4.3 95%CI: 1.03, 18.09). This is consistent with the findings in the study conducted in Addis Ababa and Mekele [11, 14]. The number of sexual partners in life is another strongly associated factor with Gender-based violence as those who had two or more sexual partners in life had more than 11 times (AOR =11.5 95%CI: 2.80, 47.16) chance of enduring Gender-based

violence than those who had one sexual partner in life. This is again consistent with a study conducted at Addis Ababa University among female students [15].

The likelihood of experiencing Gender-based violence among those who had no chance to discuss personal affairs with their parents was five-time (AOR= 5.0 95%CI: 1.37, 18.55) higher than those who had a chance to discuss reproductive health issues with their parents. This is consistent with the study conducted in Bahirdar (AOR = 4.36, 95%CI: 1.40, 13.56) [16]. The reason might be a lack of adequate knowledge of how to deal with sexual issues with perpetrators.

The likelihood of experiencing lifetime Gender-based violence was 3.4 times (AOR= 3.4, 95%CI:(1.04,10.72) more likely among respondents who had a strict parenting style on their behavior than those who had an average parenting style. The reason could be that the average parenting style will provide directions as well as the freedom to decide on personal issues. This fosters their confidence in self-leadership.

Gender-based violence was 90% less likely among those who had monthly financial support (AOR= 0.1, 95%CI: (0.03, 0.73) than those with semester-based financial support. The possible reason could be since they get income timely, as a result, they may not approach male to gain money. Lastly, alcohol use and khat use behaviors were found to be significantly associated with Gender-based violence (AOR = 8.3 95%CI: 2.57, 27.00) and (AOR = 11.05 95% CI: 3.53, 34.60), respectively. Similar findings were documented by studies conducted in Mekelle and Chile [11, 17]. It is difficult from this study to judge which one is causing the other because it is also known that sexual abuse can predispose the victim to increased substance use [18].

The study is internally valid for the following major reasons: The study is done on a population that comes from all zones of the Amhara region, and the result can be generalized to all female college students of the region. A standard tool (sexual abuse history questionnaire) was used to assess Gender-based violence.

However, the study was not without limitations; the magnitude of Gender-based violence might be underestimated because the information was collected only from the survivors during the data collection time. Students could probably be dropped out or remain absent from college because of the violence victimization. In addition, since the study deals with a sensitive issue, underreporting is inevitable. Moreover, it is difficult to show cause and effect relationships as it is a cross-sectional study. Lack of nationally representative figures on the prevalence of Gender-based violence is also another shortcoming. Some other limitations include, the perpetrator/sex offenders related factors were not assessed, the tool (sexual abuse history questionnaire) is not validated in Ethiopia, and males are not included in this study even if they were ever a victim.

## CONCLUSION

The prevalence of Gender-based violence among female students in Gonder Teacher Training College was high. Factors found to be significantly associated with Gender-based

violence include living alone, lack of the trend of discussing reproductive health issues with their parents, having multiple sexual partners in life and being a third-year student; tight parenting style, and lastly, alcohol and khat use behaviors had positive associations with Gender-based violence. However, earning financial support monthly was a protective factor.

## LIST OF ABBREVIATIONS

<b>SGBV</b>	= Sexual and Gender-Based Violence
<b>AIDS</b>	= Acquired Immune Deficiency Syndrome
<b>ETB</b>	= Ethiopian Birr
<b>HIV</b>	= Human Immune Deficiency Virus
<b>IVAWS</b>	= International Violence against Women Survey
<b>SPSS</b>	= Statistical Package for Social Sciences
<b>SRS</b>	= Simple Random Sampling
<b>GTTC</b>	= Gonder Teacher Training College
<b>UN</b>	= United Nation
<b>WHO</b>	= World Health Organization

## AUTHORS' CONTRIBUTIONS

MB contributed to the design, conduct, and analyses of the research and in the manuscript preparation. YZ, GB, and MG contributed to the review of the manuscript. All authors read and approved the manuscript.

## ETHICS APPROVAL AND CONSENT TO PARTICIPATE

All procedures followed were by the ethical standards of the responsible committee from the institutional review board of Tseda Health Sciences College, Ethiopia.

## HUMAN AND ANIMAL RIGHTS

Not applicable.

## CONSENT FOR PUBLICATION

Verbal consent was obtained from all study participants for being included in the study.

## AVAILABILITY OF DATA AND MATERIALS

The authors confirm that the data supporting the findings of this study are available within the article.

## FUNDING

None.

## CONFLICT OF INTEREST

We all authors announce that we have no competing interests.

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## REFERENCES

- [1] Organization WH. Responding to intimate partner violence and Gender-based violence against women: WHO clinical and policy guidelines. World Health Organization 2013.
- [2] Krug EG, Mercy JA, Dahlberg LL, Zwi AB. The world report on violence and health. *Lancet* 2002; 360(9339): 1083-8. [http://dx.doi.org/10.1016/S0140-6736(02)11133-0] [PMID: 12384003]
- [3] Ellsberg M. Violence against women and the Millennium Development Goals: facilitating women's access to support. *Int J Gynaecol Obstet* 2006; 94(3): 325-32. [http://dx.doi.org/10.1016/j.ijgo.2006.04.021] [PMID: 16842792]
- [4] FUH CD. Gender-based violence against Girls in Secondary Schools: The Case of Cameroon and South Africa.
- [5] Moore AM, Awusabo-Asare K, Madise N, John-Langba J, Kumi-Kyereme A. Coerced first sex among adolescent girls in sub-Saharan Africa: Prevalence and context. *Afr J Reprod Health* 2007; 11(3): 62-82. [http://dx.doi.org/10.2307/25549732] [PMID: 18458747]
- [6] Yegomawork G, Deyessa N, Berhane Y, *et al.* Women's health and life events study in rural Ethiopia. *Ethiop J Health Dev* 2003; 17. [Special issue].
- [7] Panganai T, Samkange W. Sexual dilemma: Perceptions and attitudes of sexually violated women in Gweru Urban, Zimbabwe. *Greener J Soc Sci* 2013; 3: 349-63. [http://dx.doi.org/10.15580/GJSS.2013.7.071713738]
- [8] Black MC, Basile KC, Breiding MJ, Smith SG, Walters ML, Merrick MT, *et al.* The national intimate partner and Gender-based violence survey (NISVS): 2010 summary report. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. 2011; p. 25.
- [9] Leserman J, Drossman DA, Li Z. The reliability and validity of a sexual and physical abuse history questionnaire in female patients with gastrointestinal disorders. *Behav Med* 1995; 21(3): 141-50. [http://dx.doi.org/10.1080/08964289.1995.9933752] [PMID: 8789650]
- [10] Dhalla S, Kopec JA. The CAGE questionnaire for alcohol misuse: A review of reliability and validity studies. *Clin Invest Med* 2007; 30(1): 33-41. [http://dx.doi.org/10.25011/cim.v30i1.447] [PMID: 17716538]
- [11] Yohannes G. Prevalence and factors related to gender-based violence among female students of higher learning institutions in Mekelle town, Tigray, Northern Ethiopia. MPH Thesis: Department of Community Health, Addis Ababa University. 2007; 23-45.
- [12] Andersson N, Paredes-Solis S, Milne D, *et al.* Prevalence and risk factors for forced or coerced sex among school-going youth: National cross-sectional studies in 10 southern African countries in 2003 and 2007. *BMJ Open* 2012; 2(2)e000754 [http://dx.doi.org/10.1136/bmjopen-2011-000754] [PMID: 22389362]
- [13] Mouzos J, Makkai T. Women's experiences of male violence: Findings from the Australian component of the International Violence Against Women Survey (IVAWS). Australian Institute of Criminology Canberra 2004.
- [14] Molla M, Ismail S, Kumie A, Kebede F. Gender-based violence among female street adolescents in Addis Ababa, April 2000. *Ethiop J Health Dev* 2002; 16(2): 119-28. [http://dx.doi.org/10.4314/ejhd.v16i2.9802]
- [15] Seblework T. Assessment of sexual coercion among Addis Ababa University Female Students 2004.
- [16] Shimekaw B, Megabiaw B, Alamrew Z. Prevalence and associated factors of Gender-based violence among private college female students in Bahir Dar city, North Western Ethiopia. *Health* 2013; 5(06): 1069. [http://dx.doi.org/10.4236/health.2013.56143]
- [17] Lehrer JA, Lehrer VL, Lehrer EL, Oyarzún PB. Prevalence of and risk factors for sexual victimization in college women in Chile. *Int Fam Plan Perspect* 2007; 33(4): 168-75. [http://dx.doi.org/10.1363/3316807] [PMID: 18178541]
- [18] Seifert SA. Substance use and sexual assault. *Subst Use Misuse* 1999; 34(6): 935-45. [http://dx.doi.org/10.3109/10826089909037250] [PMID: 10227119]

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