

Prevalence of violence and associated factors among Youth in Northwest Ethiopia: Community-based Cross-sectional study.

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Abstract

Background Violence as a known serious public health problem affects people in all stages of life, from childhood to the elderly. In society, one of the most visible forms of violence is young people violence, whereas they, adolescents and young adults, are the main victims of such violence. There was limited information on the burden of violence and factors among this age group. Therefore, this study aimed to determine the prevalence of violence and its associated factors among youth in Northwest, Ethiopia.

Methods A community-based cross-sectional study design was conducted to estimate the magnitude of violence among youth in Northwest, Ethiopia. The calculated sample size was 1765. A structured and pretested interviewer administered questionnaire was used to collect the data. A multi-stage cluster sampling technique was employed to get the study participants. Data were entered using Epi Info version 7 and then exported to STATA 14 for data analysis. The bivariate logistic regression model was employed to identify associated factors. An adjusted odds ratio with a 95% confidence interval was used to determine factors associated with violence.

Results From the total 1765 representatives of the youth population, 1597 (90.5%) youth participated in the study. Overall, the prevalence of violence among youth aged 15–24 years for the last 12 months was 21.5%. In the multivariate logistic regression model, factors significantly associated with violence were being married and divorced (AOR= 1.77, 95% CI: 1.13, 2.79) and (AOR=5.67, 95%CI: 2.93, 10.99), respectively, Living with mother's only (AOR= 1.85, 95% CI: 1.28, 2.66) and father's only (AOR=2.45, 95% CI: 1.30, 4.63), and substance use (AOR= 2.38, 95% CI: 1.56, 3.66).

Conclusions The prevalence of violence among youth was high compared to other studies. Special emphasis should be given to reduce the burden of youth violence and preventing and controlling the identified factors by modifying the existing policies/strategies or developing new strategies and interventions program.

Keywords: Violence, Youth, Physical violence, Sexual violence, Psychological violence

Background

The World report on violence defines violence as, "the intentional use of physical force or power, threatened or actual, against another person or a group or community that either result in or has a high likelihood of resulting in injury death, psychological harm, mal-development or deprivation"[1,2].

Violence as a known serious public health problem affects people in all stages of life, from childhood to the elderly [3]. In society, one of the most visible forms of violence is young people violence, whereas they, adolescents and young adults, are the main victims of such violence [4]. It is estimated that each year, 200,000 homicides occur in this age group in the world. Nearly all of these deaths occur in low and middle-income countries and the majority of victims (83%) are males [2].

Youth violence often occurs alongside other types of violence. For instance, maltreated children are themselves at increased risk in later life of either perpetrating or becoming the victims of multiple types of violence – including suicide, sexual violence, youth violence, and intimate partner violence. The same set

of factors – such as harmful levels of alcohol use, family isolation and social exclusion, high unemployment, and economic inequalities – have been shown to underlie different types of violence [5].

Violence is among the top five leading causes of death for young people aged 10–29 [6] and the elimination of violence is foreseen in the United Nations Agenda Sustainable Development Goals by 2030 [3,7]. Youth violence includes physical, psychological and sexual abuse, neglect, commercial or other exploitation of children (e.g., labor exploitation, forced marriage, forced criminality, domestic servitude, child soldiers), “resulting in actual or potential harm to the child’ health, survival, development or dignity in the context of establishing a relationship, responsibility, trust or power”[8, 9].

Victims are not the only heirs of youth violence, but also deeply harm their families, friends, and communities. A great increase in the costs of health and welfare criminal justice services decreases the value of property in areas where it occurs, disrupts a range of essential services, reduces productivity, and generally undermines the fabric of society are imposed consequences of youth violence [2].

There was limited information on the burden of violence and associated factors among this age group. Therefore, measuring the burden of this problem and determinants is important to develop strategies and policies to prevent violence and manage cases. Additionally, it will give directions for researchers to conduct further research to develop or modify the existing policies and strategies for preventing and controlling violence among this age group.

Literature review on the prevalence of youth violence

The burden of youth violence is highest in low and middle-income countries [2]. A study done in Serbia violence among youth was 13.4% [10], China 13.2% [11], and DHS in Ethiopia 27% [12]. The World Health Organization (WHO) based on data from selected twenty countries in low and middle-income regions reported that an average of 47% of boys and 26% of girls participated in physical fighting during the past 12 months. It means that nearly one in two males reported involvement in physical fighting. In this systematic review, the lowest physical fighting between twenty studied countries was for females in Myanmar (8%), whereas, the highest rates are reported for boys in Samoa (73%) [2]. A study conducted in Isfahan, Iran, having physical violence (past year) among boys and girls was 53.4% and 24.0% in middle school and 42.4% and 18.1% in high school respectively. The prevalence of physical violence was higher in middle school students than high school students [13]. In Ethiopia, nearly 16% of male college students reported physically abusing an intimate partner or non-partner [14]. Twenty-four percent of ever-married women have experienced spousal physical violence, with 17% experiencing this type of violence in the past 12 months [12].

Worldwide, around 15 million adolescent girls aged 15 to 19 have experienced forced sex in their lifetime; 9 million of these girls were victimized within the past year [15]. The reported prevalence of sexual violence among young people in dating relationships varies from 1.2%–32.9% for females and from 1%–19% among boys in North America and Europe [16]. According to demographic and health survey data for selected low and middle-income countries, the percentage of girls aged 15–19 years who have ever

experienced forced sexual intercourse ranges from zero among adolescent girls in Kyrgyzstan, to 22% among girls in the same age range in Cameroon. Among girls and women aged 15-49 years, the percentage reporting forced sexual initiation ranges from 1% in Timor- Leste to 29% in Nepal [17], in Uganda, 35% [18] and EDHS report, seven percent of women age 15-49 reported that they have experienced sexual violence in the past 12 months, five percent of women had experienced sexual violence by age 18, including 2% who had experienced sexual violence by age 15 [12].

A study in Serbia showed that (in the family and on the street) 2.8% and 5.3% were victims of psychological violence, respectively [10]. A similar study conducted in Isfahan, Iran, distribution of violent behavior among studied students; Youth threatened by someone in the last 12 months among boys and girls 25% and 8% in middle school and 19.1% and 6.1% in high school, respectively [13]. The experience of any emotional violence in among ever-married women age 15-49 years was 20.2% [12].

Factors associated with youth violence

The associations of socio-demographic and other factors with violence; being raised in poverty has been found to contribute a greater likelihood of involvement in violence, and poverty both in the community and at the level of individual households has been shown to predict violence [2, 19].

A study conducted in Serbia, predictors of violence victimization were male gender, lack of close friends and urban settlements [10]. The youngest women (age 15-19), women with no children, and never-married women are less likely to have experienced violence [12]. Young men are at far greater risk than females for becoming perpetrators and victims of youth violence. About 90% of fatal violence is perpetrated by males and 83% of all youth homicide victims are males. Female involvement in youth violence resulting in non-fatal physical injuries remains inadequately studied in many countries. In the USA, females represent 20% of all arrests for violent crime among those aged 10–29 years [20].

Youth violence perpetration and victimization are related to low academic achievement. Those who are involved in youth violence show lower educational performance and are more at risk of school dropout or truancy [21]. At the individual level, young people who start drinking early and drink frequently are at increased risk of perpetrating or being a victim of youth violence. At community and society levels, crowded and poorly managed drinking venues contribute to increased aggression among drinkers [22]. Several studies confirm that violent incidents often occur in situations of alcohol intoxication [23, 24].

DHS in Ethiopia, all forms of spousal violence are higher among divorced/separated/widowed women, women with no education with the level of husbands/partners alcohol consumption. Experiences of physical violence by urban-rural residence, rural women are only somewhat more likely than urban women to have experienced physical violence [12].

There are no or limited studies conducted to assess violence against young people and its determinants in the study area as well as in Ethiopia. Even some studies conducted previously focused only on the reproductive health problems of young people; yet, which does not address violence against young

people in both sex groups. Hence, the present study was designed to determine the prevalence of violence and related factors among youth in Northwest Ethiopia. Thus, the findings of this study contribute to public health researchers and policymakers to promote further research and develop or modify strategies designed to reduce violence.

Methods

Study design

A community-based cross-sectional study design was conducted to estimate the magnitude of violence and associated factors among young people aged 15-24 years.

Study Setting and period

This study was done in Central, West and North Gondar Zones. A total of 24 woredas and 1 city administration present in the three zones: Central Gondar zone have 13 woredas, North Gondar Zone 7 woredas, and West Gondar zone 4 woredas. The total number of kebeles in the three zones is 546 having a total population of 3,654,920 populations, from this 1,847,631 was males and 1,807,289 females [25]. The study was done from September 2018 to June 2020.

Source and Study Population

The source population of the study was young people aged 15-24 years living both in rural and urban settings in central, west and north Gondar Zone whereas youth in the selected kebeles of in these rural and urban settings were the study population.

Sample Size calculation and sampling techniques

The sample size of the study was calculated by considering the prevalence of a study conducted in Ethiopia 27.0 % [11], Significance level=95% Margin of error = 3%, and Design effect =2 the total sample size was 1681. By considering the non-response rate of 5%, the final sample size was 1765.

A multistage cluster sampling technique was employed to get the study participants. Firstly, two woredas from the central Gondar zone, one woreda from each North Gondar zone and west Gondar zone were selected. Secondly, three kebeles were selected from the selected woredas. From each kebele, three clusters (Ketena/Gote) were randomly selected. The non-proportional or equal allocation was considered to get households in each cluster and eligible study participants were interviewed.

Operational Definitions

Violence is defined by the World Health Organization "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either result in or has a high likelihood of resulting in injury, death, psychological harm, mal-development or

deprivation” Any of the specified acts of physical, sexual, or emotional violence in the past 12 months preceding the survey [1, 12].

Emotional violence: Say or do something to humiliate you in front of others; threaten to hurt or harm you or someone close to you; insult you or make you feel bad about yourself [12].

Physical violence: Push you, shake you, or throw something at you; slap you; twist your arm or pull your hair; punch you with his/her fist or with something that could hurt you; kick you, drag you, or beat you up; try to choke you or burn you on purpose; or threaten or attack you with a knife, gun, or any other weapon [12].

Sexual violence is defined as physical force you to have sexual intercourse with him even when you did not want to; physically force you to perform any other sexual acts you did not want to; force you with threats or in any other way to perform sexual acts you did not want to [12].

Data collection method and procedure

Twenty four data collectors, who were nurses and midwives working in public health institutions (Health Centers) in the selected woredas especially those who were working in a youth-friendly clinic, and five supervisors (one supervisor per woreda) who were at least degree holders involved during data collection. The training was given for five days for data collectors and supervisors. After getting the consent, the data were collected from study participants through an interviewer-administered questionnaire. The supervisor and investigators were the overall supervision of the data collection process.

Quality assurance mechanisms

To assure data quality, training was given for data collectors and supervisors on the objective of the study, consent and confidentiality, and data collection technique/approaches. The tool was pretested on 5% of the sample size outside the data collection site. Amendment was made after the pre-test. Close supervision was undertaken during data collection both by supervisors and investigators, and the filled questionnaire was checked for completeness before data entry.

Statistical analysis

An Epi Info version 7 was used for data entry and transferred to STATA 14 for data management and final analysis. First, descriptive analysis was done to determine the problem of violence among young people. Second, binary logistic regression was used to do both bivariable and multivariable analyses to see the association between covariates and violence. Odds ratio with 95% CI and P-value <0.05 was used to determine the presence and the strength of the association between dependent and independent variables.

Results

Socio-demographic Characteristics of Youth in Northwest, Ethiopia

From the total 1765 representative sample of the youth population, 1597 (90.5%) young people participated in the study. From the total respondents, 50.7% was found in central Gondar, 68.1% of the participant's age in the study was below 20 years, the mean and median age of the participants were 19.19 and 19 respectively, with an $SD_{\pm} 2.85$. More than half of the respondents 51.2% were females. The majority of respondents was in rural settlements 53.5% and had primary education 46.6% (Table 1).

Table1. Socio-demographic characteristics of youth Northwest Ethiopia

Variable name	Frequency	Percentage
Zone		
Central Gondar	810	50.7
North	523	32.8
West Gondar	264	16.5
Age		
<20	1087	68.1
20 and above	510	31.9
Sex		
Male	780	48.8
Female	817	51.2
Residence		
Rural	854	53.5
Urban	743	46.5
Religion		
Orthodox	1483	92.9
Muslim	104	6.5
Others	10	0.6
Marital status		
Single	1721	79.6
Married	283	17.7
Divorced	43	2.7
Educational level		
Unable to read and write	114	7.1
Primary education	739	46.3
Secondary education	550	34.4
Higher	194	12.2
Currently attending school		
No	611	38.3
Yes	986	61.7
Occupation		
Unemployed	1356	84.9
Employed	241	15.1
Living arrangement		
Mother and father	758	47.5
Mother only	184	11.5
Father only	45	2.8
Husband/wife	222	13.9
Relative/sister or brother	105	6.6
Others	70	4.4
Alone	213	13.3

Socio-demographic Characteristics of Youth Parents in Northwest. Ethiopia

The majority of their parents (mother and father) were (88.6%) and (80.2%) alive, respectively. The educational status of their parent's not educated, mother's (77.5%) and father's (37.7%) (Table 2).

Table 2. Socio-demographic characteristics of youth parent's Northwest, Ethiopia

Variable name	Frequency	Percentage
Mother alive		
No	182	11.4
Yes	1415	88.6
Mothers education		
Cannot read and write	997	70.8
Read and write	223	15.8
Primary education	116	8.2
Secondary education	53	3.7
College and above	26	1.8
Mothers occupation		
Housewife	1237	77.5
Merchant	94	5.9
Government employee	35	2.2
Private employee	9	0.6
Daily laborer	26	1.6
Others	14	0.9
Father alive		
No	316	19.8
Yes	1281	80.2
Fathers education		
Cannot read and write	483	37.7
Primary education	657	51.3
Secondary education	99	7.7
Higher education	41	3.2
Father's occupation		
Merchant	245	15.3
Government employee	98	6.1
Private employee	35	2.2
Daily laborer	30	1.9
Farmer	858	53.7
Others	15	0.9
Number of families		
<5	1018	63.7
5-9	557	34.9
10 and above	22	1.4
Wealth index		
First(lowest)	319	20
Second	320	20
Third	319	20
Fourth	320	20
Highest	319	20

The prevalence of violence among youth 15 to 24 years old in the past 12 months

Overall, the prevalence of violence among youth for the last 12 months was 21.5%. Youth hit /slapped or thrown something (physical violence), scared/intimidated (psychological violence), and exposed to sexual violence for the last 12 months were 8.3%, 13.6%, and 3.4%, respectively (Table 3).

Table 3: Percentage of youth violence and their personal behavior Northwest, Ethiopia

Variable	Frequency	Percentage
One people scare or intimidate you for the last 12 months		
No	1380	86.4
Yes	217	13.6
Intimidate for the last 3 months		
No	86	39.6
Yes	131	60.4
Threatened to hurt you for the last 12 months		
No	1471	92.1
Yes	126	7.9
Threatened to hurt you for the last 3 months		
No	40	31.7
Yes	86	68.3
Hit /slapped you or thrown something to you for the last 12 months/physical violence		
No	1465	91.7
Yes	132	8.3
Hit /slapped you or thrown something to you the last 3months		
No	43	32.6
Yes	89	67.4
Forced or pressured you to have sexual intercourse for the last 12months/sexual violence		
No	1543	96.6
Yes	54	3.4
Forced or pressured you to have sexual intercourse for the last 3months		
No	32	59.3
Yes	22	40.7
Violence within the last 12 months		
No	1254	78.5
Yes	343	21.5
Violence within the last 3months		
No	1371	85.8
Yes	226	14.2
Ever use substance		
No	1489	93.2
Yes	108	6.8

Factors associated with youth violence

In the bivariate logistic regression analysis, a statistically significant association ($p < 0.05$) was observed between youth violence and the independent variables. The odds of being married and divorced (AOR= 1.77, 95% CI: 1.13, 2.79) and (AOR=5.67, 95%CI: 2.93, 10.99), respectively associated with violence among youth compared to unmarried or single. Living with mother only (AOR= 1.85, 95% CI: 1.28, 2.66), father's only (AOR=2.45, 95% CI: 1.30, 4.63) and husband/wife (AOR=0.44, 95% CI: 0.25, 0.76) were associated with violence compared to living with both parents. In this study substance use is 2.2 times more likely associated with youth violence compared to non-substance use (AOR= 2.38, 95% CI: 1.56, 3.66) (Table 4).

Table 4: Factors associated with violence among youth in Northwest, Ethiopia

Variable name	Violence for the past 12months		COR/CI	AOR	P-value
	No	Yes			
Sex					
Female	601	179	1.19 (0.13, 1.51)		
Male	653	164	1	1	
Marital status					
Single	1010	261	1	1	
Married	224	59	1.02 (0.74, 1.40)	1.77(1.13, 2.79)	0.012*
Divorced	20	23	4.45 (2.41, 8.23)	5.67 (2.93, 10.99)	0.0001***
Educational level					
Not educated	95	19	0.59 (0.33, 1.07)		
Primary education	571	168	0.87 (0.60, 1.26)		
Secondary education	443	107	0.72 (0.49, 1.05)		
Higher education	145	49	1	1	
Currently attending school					
Yes	469	142	1.18 (0.93, 1.51)		
No	785	201	1	1	
With whom you live					
Mother and father	610	148	1	1	
Mother only	126	58	1.89 (1.33, 2.78)	1.85 (1.28, 2.66)	0.001***
Father only	28	17	2.50 (1.33, 4.69)	2.45 (1.30, 4.63)	0.006**
Husband/wife	188	34	0.76 (0.49, 1.12)	0.44 (0.25, 0.76)	0.004**
Relative/sister/brother	79	26	1.36 (0.84, 2.19)	1.35 (0.83, 2.19)	0.223
Others	61	9	0.61(0.29, 1.25)	0.49 (0.23, 1.05)	0.065
None	162	51	1.29 (0.90, 1.86)	0.91 (0.62, 1.35)	0.652
Health index					
Best(lowest)	255	64	0.75 (0.52, 1.09)		
Good	255	65	0.76 (0.53, 1.10)		
Fair	245	74	0.90 (0.63, 1.30)		
Poor	260	60	0.69 (0.47, 1.01)		
Worst	239	80	1	1	
Substance use					
No	1186	303	1	1	
Yes	68	40	2.30 (1.53, 3.47)	2.38 (1.56, 3.66)	0.0001***

Discussion

Violence is the leading cause of morbidity as well as mortality among young or youth populations. In this study, the prevalence of violence among youth was 21.5%. This finding was in line with the study conducted in Ethiopia, 27% [12], but it was higher than a study conducted in Serbia 13.4% [10], China 13.2% [11] and in Ethiopia 16% [14]. The higher finding in our study might be most of the youth were unemployed and living in lower socioeconomic status that imposed them on substance use, commits crime and violence.

The prevalence of youth violence among males and females was 22.9% and 20.1%, respectively. This study finding was higher compared to study in Serbia and China; the prevalence of youth violence among males and females was 15.5% for males and 11.1% for females in Serbia [10] and China [11] among students who reported being threatened or injured with a weapon in school was (15.7% vs. 10.5%). This variation could be a difference in the study setting and population characteristics. The higher finding in our study is due to a high rate of unemployment among the youth population and currently, there is political instability in the country including the study area.

In this study, the prevalence of physical violence among youth in the past 12 months was 8.3%. It was comparable with a study done in Serbia 7.3% [10], Myanmar (8%) [2], and in Malaysia, 11.8% [26], but lower than a review done in twenty countries (in low and middle-income regions) reported that an average of 47% of boys and 26% of girls, the highest rates for boys in Samoa (73%) [2], and a study in Isfahan, Iran among boys and girls 53.4% and 24.0% in middle school, 42.4% and 18.1% in high school, respectively [13] and in Uganda 59% [18]. This variation was due to differences in population characteristics and settings. The review of the above studies was done on the riskiest regions (in low and middle-income) and targets (school students). Large segments of adolescents or youth found in the school compound were much more likely to encounter violence from their peers.

In this study, the prevalence of sexual violence among youth was 3.4%. This finding was consistent with a study done in Uganda 5.6% [27] and Ethiopia 7% [12]. But lower than a review done in Nepal 29% and Cameroon 22% [17] and Uganda 35% [18]. This difference might be due to the study setting and period. Currently, the violators of sexual violence and their legal punishment were exhibited through the media that might impede others to commit sexual violence.

The prevalence of scared/intimidated (psychological violence) in this study was 13.6%. It was higher than a study done in Serbia 2.8% [10], but this finding was lower than a study in Isfahan, Iran among boys 25% in middle school and 19.1% in high school, respectively [13] and similar study in the same country among adolescents and youth reported to be between 30% and 65.5%, respectively [28] and in Uganda 33.3% [18]. This difference could be a difference in the study area, setting, and participants; a large segment of adolescents or youth found in the school compound were much more likely to encounter

violence from their peers, and the biological differences of the participants might explain some differences in levels of violence between boys and girls.

In the multivariate logistic regression proved that the odds of being married and divorced were 1.8 and 5.7 times more likely associated with violence among youth compared to unmarried or single, respectively. Never-married women are less likely to have experienced violence. This finding was inconsistent with a study done in Serbia [10] and DHS in Ethiopia [12]. The possible explanation for this difference could be married youth or divorced were unemployed and those who were married also economically dependent on their husband or husband's parents that led them to conflict and exposed to violence.

Living with mother only or father alone was 2 to 2.5 times more likely associated with violence compared to living with both parents. This finding was consistent with a study done in Goa, India [29] and Arbaminch town, Gammu Goffa zone, Southern Ethiopia [30]. The possible explanation could be, parental monitoring and supportiveness minimize their chance of exposure to risks of substance use and violence.

In this study substance use was 2.4 times more likely associated with youth violence compared to non-substance use. The finding of this study corroborated with studies done in different countries [22, 23, 24, and 29]. This is because alcohol use directly affects cognitive and physical functioning and can reduce self-control and the ability to process information and assess risks. It can increase impulsiveness and make particular drinkers more likely to engage in violent behavior.

Limitation of this study: The main limitations of this study relate to the cross-sectional design, which does not allow us to determine the direction of the causality of the detected associations. It doesn't measure the amount and frequency of substance use among the respondents. There might be recall bias.

Conclusions

The prevalence of violence among youth was high compared to other studies. Special emphasis should be given to reduce the burden of youth violence and preventing and controlling the identified factors by modifying the existing policies/strategies or developing new strategies and interventions program.

List Of Abbreviations

AOR: Adjacent Odds Ratio

CI: Confidence Interval

COR: Crude Odds Ratio

DHS: Demographic and Health Survey

EDHS: Ethiopia Demographic and Health Survey

SD: Standard Deviation

UoG: University of Gondar

USA: United States of America

WHO: World Health Organization

Declarations

Ethics approval and consent to participate

Ethical clearance was obtained from the Institutional Review Board of UoG. Permission letter to conduct the study was obtained from central, west and north Gondar Zone Health department. Assent and informed consent were obtained from potential study participants and their families or guardians accordingly. It was explained to the participants that the selection of the study is random and they have the right not to participate or withdraw from the study at any time. To ensure confidentiality, their name and other personal identification were not registered in the format.

Consent for publication: Not applicable.

Availability of data and materials: “The datasets used and/or analyzed during the current study will be available from the corresponding author upon reasonable request”.

Competing interests: Authors declare that they have no conflict of interest.

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Authors' contributions: Abebaw Addis Gelagay and Alehegn Bishaw Geremew wrote the proposal, and all authors involved in data analysis and drafted the paper. Finally, we read and approved the final manuscript.

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