

Research Article

The Prevalence of Aggression and Its Relationship with Exposure to Real-life Violence Among Students of Public Universities in Eastern Ethiopia

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Abstract

Recent studies have been increasingly directed toward understanding the impacts of violence exposure, largely due to the growing prevalence of violent incidents in daily life. It is well-documented that exposure to violence can trigger aggressive behaviors, and repeated incidents may even reshape how individuals think, feel, and act. This exposure can stir up personal emotions and behaviors—ramping up physical arousal, intensifying negative feelings, and ultimately leading to aggressiveness. While a lot of research has looked into the effects of fictional violence from sources like video games and television, there has been less emphasis on real-life violence. Aggression, which refers to the intentional effort to inflict harm on others, can negatively affect various aspects of a person's life, including personal relationships, social interactions, and academic performance. This is particularly noticeable among students, who often face aggressive behavior throughout their educational experiences. The present study aims to evaluate how widespread aggression is among students in public universities in eastern Ethiopia, examining possible gender differences and the links between real-life violence exposure and aggressive behavior. Using a sequential explanatory mixed-methods approach and a standardized questionnaire, the research surveyed 395 participants from three public universities. The results showed significant positive correlations between real-life violence exposure and different kinds of aggression: physical aggression ($r=0.40^{**}$), verbal aggression ($r=0.60^{**}$), anger ($r=0.58^{**}$), and hostility ($r=0.76^{**}$), all statistically significant at $p < 0.05$. Some minor discrepancies were noted in physical aggression scores between genders (Male = 3.27 and Female = 3.16), but the overall data indicated a strong link between exposure to real-life violence and increased aggression in this population. This study underlines the crucial need for educating families about effective parenting techniques that can mitigate aggressive behavior. Additionally, it highlights the importance of involving psychologists in crafting strategies aimed at fostering positive behavior changes among university students.

Keywords

Exposure to Real Life Violence, Anger, Hostility, Verbal and Physical Aggression

1. Introduction

In most contemporary societies aggressive behavior is the major concern because it may inflict damage on individuals

and groups and constitute a serious threat to the wellbeing of the community. Aggression is one of the very common issues

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that face students at different stages of their studies. Accordingly, it is estimated that 246 million students around the world experience at least one type of aggression, such as physical, psychological, and sexual violence [1]. Aggressive tendencies of students in school takes place in the forms of attacks by students on other students, or the school staff and vice versa [2]. Researchers have identified various factors that contribute to aggressive behaviors, including biological, environmental, social, and psychological elements [3]. In the school setting, aggressive behavior among students refers to a series of intentional actions aimed at harming their peers physically, psychologically, verbally, or relationally [4].

University students often face a range of challenges, including psychological, social, academic, and economic difficulties [5]. While some students successfully adapt to these challenges, others struggle and are at risk of developing maladjustment issues, such as impaired social functioning and aggressive attitudes towards their peers, instructors, and environment [6]. A study by [7] found that aggressive behaviors among university students had significantly increased, with universities witnessing frequent incidents of such behavior.

Given the prevalence and impact of aggression among university students, it is crucial to understand the associated factors. Existing research has highlighted biological, environmental, social, and psychological factors as contributors to aggressive behaviors [8]. Addressing this issue is essential, as universities are institutions designed for teaching and learning, which can only thrive in a secure and conducive environment free from intimidation, harassment, and fear.

The current researcher, having lived at Haramaya University in eastern Ethiopia for over six years, has observed prominent aggressive behaviors among students, such as the use of nasty language, teasing, threatening, physical fighting, disobeying school regulations, and quarreling with or criticizing teachers. However, there is a lack of empirical evidence to inform the university community about the prevalence, magnitude, and associated factors of aggression. Therefore, the objective of this study is to assess the prevalence and associated factors of aggression among students at this eastern Ethiopian public universities.

1.1. Statement of the Problem

Aggression prevalence and its associated factors among university students are a significant concern in the educational system. Recent studies have shown a rise in aggressive behaviors among university students [7]. However, there is a lack of comprehensive research on the prevalence of aggressive behavior and related factors, including gender differences, especially in Ethiopian universities. A study at the University of Jordan by [6] revealed that 56% of students exhibited high levels of aggression, while 44% displayed low levels, as measured by physical aggression, verbal aggression, hostility, and anger. Furthermore, research at Annamalai University in India indicated that male students exhibited higher levels of

physical aggression, verbal aggression, anger, and hostility compared to their female counterparts [9]. Previous studies have also shown that university students are more susceptible to violence compared to other age groups [10]. Psychologists suggest that exposure to real-life violence may contribute to aggressive behavior. Given the increase in aggressive behaviors among students, stakeholders have called for further investigations to address the following issues:

1. Whether both genders engage in physical, verbal, anger, and hostility consistently, and
2. If there is a significant link between students' aggressive tendencies and their exposure to real-life violence.

These inquiries are essential for gaining a deeper understanding of the issue and its implications. In conclusion, it is crucial that these concerns are taken seriously and addressed promptly to safeguard the well-being and academic success of university students.

1.2. Research Gap

The existing body of research on aggression has primarily focused on high school students, both domestically and internationally. However, there is a need to extend this research to higher educational levels, specifically universities. It has been observed that students who have experienced physical aggression during their high school years are more likely to be victimized during their university education as well [11]. Upon reviewing the literature, it becomes evident that most studies have not covered all aspects of aggression. Some studies have focused solely on verbal and physical aggression, while others have examined anger or hostility. This incomplete approach fails to accurately assess the prevalence of aggression among university students. To gain a comprehensive understanding of the extent of aggression, it is crucial to study all domains of aggression holistically.

Furthermore, previous research on aggression has predominantly explored factors such as video game violence, low empathy, hostile attribution bias, and low socioeconomic status as potential contributors to student aggression. However, there is a lack of empirical attention given to the correlation between all domains of aggression and exposure to real-life violence in Ethiopia. Therefore, conducting this research will help bridge this gap by providing a critical description of all domains of aggression and their correlation with exposure to real-life violence among students attending public universities in Eastern Ethiopia.

1.3. Research Questions

1. What is the mean difference between male and female students regarding all domains of aggression (physical, verbal, anger, and hostility) among students of public universities in eastern Ethiopia?
2. What is the relationship between all domains of aggression (physical, verbal, anger, and hostility) and real-life vio-

lence among students of public universities in eastern Ethiopia?

1.4. Hypothesis

Ho1: There is no statistically significant gender difference in domains of aggression (anger, hostility, physical and verbal aggression) among public universities in eastern parts of Ethiopia.

Ho2: There are no statistically significant relationships between domains of aggression (anger, hostility, physical and verbal aggression) and students' exposure to real life violence's among public universities in eastern parts of Ethiopia.

1.5. Purposes of the Study

The study aimed to achieve the following objectives:

1. Investigate the average disparity in aggression levels (physical, verbal, anger, and hostility) between male and female students enrolled in public universities in eastern Ethiopia.

2. Examine the correlation between different forms of aggression (physical, verbal, anger, and hostility) among students and their exposure to real-life violence in public universities located in eastern Ethiopia.

1.6. Rationale of the Study

This study aimed to shed light on the prevalence of aggression and exposure to real-life violence among public universities in the eastern regions of Ethiopia, offering valuable insights for parents, governments, and the wider community. Moreover, students stand to gain awareness from this research regarding the prevalence of aggressive behavior among their peers, as well as the correlation between their own aggressiveness and exposure to real-life violence. Additionally, the results of this study may offer preliminary insights into the prevalence of aggression among students and its relationship with exposure to real-life violence. Lastly, this research contributes to the existing literature and may serve as a catalyst for further in-depth investigations into aggression and its associated factors.

2. Review of Related Literature

Aggression and aggressive behavior can be observed in various groups of individuals, including university students, regardless of cultural or geographical differences. Aggressive behavior is described as any action intended to harm another organism, motivated by a desire to avoid such treatment [12]. There are four domains of aggressive behavior: hostile aggression, which occurs when the primary intention of the aggressor is to harm the victim due to anger [13]; anger, which is a feeling of being upset in response to frustration or injury and is defined as negative emotions that a person struggles to

cope with [14]; verbal aggression, which involves using aggressive language directed at a target and typically provokes hostility from the target, focusing on speech accompanied by anger, insults, and threats to intimidate others [15]; and physical aggression, which involves behavior that causes or threatens physical harm to others, such as hitting, kicking, and using weapons [16].

Existing research on aggression has primarily focused on high school students. However, studies suggest that aggressive behaviors may extend into higher education, particularly at the university level. For instance, a survey of university students in Jordan found that aggressive behaviors were quite prevalent, with the university environment witnessing frequent incidents of student aggression [7]. Similarly, a study in China reported that 24.4% of high school students exhibited verbal aggression, while 27.9% engaged in physical aggression [17]. This indicates that aggressive tendencies developed in adolescence can carry over into the university setting. Furthermore, research indicates that students who experienced physical aggression in high school are at greater risk of subsequent victimization during their university education [11]. This suggests that addressing aggression early on may help prevent ongoing issues as students' transition to higher learning environments. Furthermore, while much of the existing research on aggression has focused on high school students, there is evidence that these problematic behaviors can persist into the university setting.

Several studies conducted at the high school level have discovered significant gender differences. [18] Have identified gender as an individual factor that can be used to predict variations in aggression. For instance, [13] conducted research on 360 high school students in Nigeria's Rivers State and found that males exhibited higher prevalence of physical and verbal aggression compared to females. Similarly, [19] conducted a study on high school students to measure anger levels, a subtype of aggression, and found that women displayed higher levels of anger than men. Muhammad, [20] also noted a significant difference in physical aggression between sexes, with males reporting more frequent engagement in such behavior. Additionally, [19] research conducted in Ethiopia at Meskan Woreda high school revealed that verbal aggression was prominent among students, followed by physical aggression.

Various studies conducted in different universities have revealed a prevalence of aggression and gender differences. For instance, research carried out at Annamalai University in India found that boys exhibited higher levels of physical aggression, verbal aggression, anger, and hostility compared to girls. The mean scores for boys were significantly higher ($M=77.28$) than those for girls ($M=65.20$) [9]. Similarly, a study conducted at the University of Jordan examined aggression levels among university students in Jordan they have found gender difference between both sexes [21]. Additionally, a study by [13] on secondary school students in Nigeria highlighted significant gender variations in physical and

verbal aggression, with males scoring higher in both categories. The research also indicated that a considerable portion of the participants exhibited physical (20.8%) and verbal (48.3%) aggression, with a higher percentage of males being physically and verbally aggressive compared to females. These findings suggest that males tend to display higher levels of aggression than females in both physical and verbal forms.

According to a study by [22], exposure to real-life violence in daily lives can lead to aggressive behaviors. The research also found a strong positive correlation between violence exposure and aggressive behaviors. While most studies on violence exposure have focused on children, particularly elementary and high school students, these findings can still provide valuable insights for studying adults. Interestingly, [10] noted that research on exposure to real-life violence often overlooked university students. Previous studies have indicated that university students may actually experience higher levels of violence exposure compared to other age groups [10].

3. Methods and Materials

In this research, a mixed methods approach was utilized to gather both qualitative and quantitative data. Specifically, an explanatory sequential mixed methods design, starting with collecting quantitative data and then moving on to qualitative data to gain deeper insights. The primary motivation behind opting for this mixed research design was to complement the quantitative data with valuable insights from qualitative data. As cited by [23], qualitative data offer well-grounded, detailed descriptions and explanations of human processes, making it essential for study. The quantitative data collection allowed us to quantify the information obtained from the learners.

This study focused on undergraduate students at three public universities in eastern Ethiopia: Haramaya University (HU), Dire Dawa University (DDU), and Jigjiga University (JJU). As of the 2023/2024 academic year, HU comprised 11 colleges, DDU had 6 colleges, and JJU had 9 colleges, with a combined student population exceeding 32,954. The gender distribution across the universities was as follows: HU had over 9,947 students (6,696 male, 3,251 female); DDU had over 10,853 students (6,770 male, 4,083 female); and JJU had over 12,154 students (7,936 male, 4,218 female).

To collect data, we employed a multi-stage sampling technique. Initially, 9 colleges were randomly selected from the total of 26 colleges across the 3 universities, encompassing 58 departments. Subsequently, 3 colleges and 6 departments were randomly chosen from HU, DDU, and JJU, resulting in a total of 6 colleges and 18 departments. Finally, the researcher utilized a stratified random sampling method to select male and female students in proportion to the sizes of the strata.

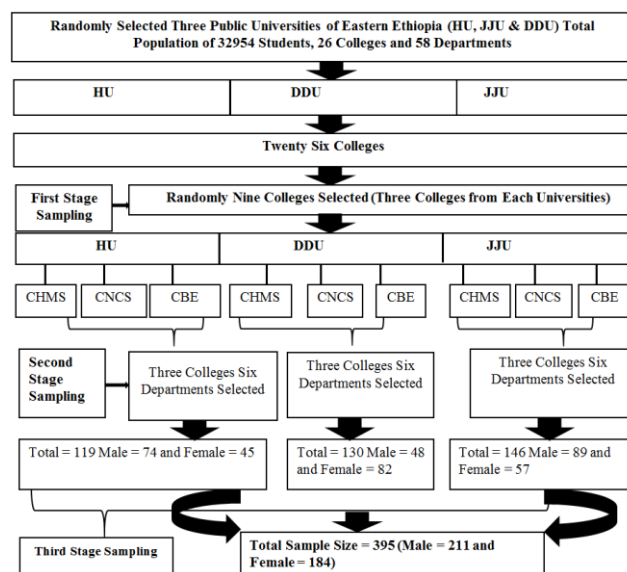


Figure 1. Multi-Stage Sampling Procedure of the Study.

The sample size was determined using the [24] formula at a 95% confidence level, resulting in a sample of 395 students, comprising 211 male students and 184 female students. The study's inclusion criteria encompassed factors such as gender, college, universities, and class size.

$$n = \frac{Ni}{1 + Ni(e)^2} \text{ Where: } n = \text{sample size required,}$$

N = number of students in the population, e = allowable error (%), $i = (1, 2, 3 \dots i)$

$$n = \frac{Ni}{1 + Ni(e)^2} = \frac{32954}{1 + 32954(0.05)^2} = n = 395 \text{ HU } n_1 = \frac{9947}{1 + 32954(0.05)^2} = n_1 = 119$$

$$\text{DDU } n_2 = \frac{10853}{1 + 32954(0.05)^2} = n_2 = 130 \text{ JJU } n_3 = \frac{12154}{1 + 32954(0.05)^2} = n_3 = 146$$

The survey questionnaire was administered to 119 HU, 130 DDU, and 146 JJU students across various colleges and departments. The researcher specifically focused on undergraduate students to ensure a comprehensive analysis. A structured and close-ended questionnaire was utilized during the survey, following [25] recommendation that such questionnaires are easy to administer and cost-effective for analysis due to their uniform presentation to all respondents.

To develop the questionnaire, the researcher adapted the Buss-Perry aggression scale, originally created by [26], which is a five-point Likert scale designed to assess aggressive attitudes. This scale comprises 29 items, with nine items related to physical aggression, eight to hostility, seven to anger, and five to verbal aggression. Higher scores on the scale indicate a greater presence of the corresponding characteristic in an individual. The Likert scale responses were coded as follows: (1) Absolutely Disagree, (2) Disagree, (3) Neutral, (4) Agree, (5) Absolutely Agree. Internal consistency for each scale, as measured by Cronbach's alpha, was reported as follows: Physical Aggression (0.85), Verbal Aggression (0.72), Anger (0.83), and Hostility (0.77). Furthermore, the Screen for Ad-

olescent Violence Exposure questionnaire [SAVE], originally developed by [27] and utilized in [28] study, was adapted to assess exposure to real-life violence. This questionnaire employed a 5-point Likert format to gauge the frequency of violent events experienced by participants (1='Never', 2='Hardly ever', 3='Sometimes', 4='Often', 5='Very often'). Despite the widespread use of these questionnaires behavioral researchers, the researcher conducted pilot test and assessed their reliability using Cronbach's Alpha as a measure.

The reliability and validity of the instruments were verified by conducting a pilot test and providing training for facilitators and data collectors. Internal consistency reliability analysis was confirmed through the use of Cronbach's alpha [29]. Additionally, the completeness and accuracy of all responses from students were monitored by the researcher and data collectors during the questionnaire collection process, with incomplete questionnaires being promptly completed. The

pilot study significantly contributed to justifying the overall research design, validity, and reliability of the research tools, as well as aiding in the refinement and enhancement of the questionnaire and ethical considerations for the actual research project. Therefore, the instruments prepared to evaluate the prevalence and associated factors of aggression were thoroughly assessed for reliability.

The pilot test was carried out at HU, College of Education and Behavioral Science, with CEBS serving as the non-selected population sample for the study. A total of 40 respondents participated in the test, consisting of 19 female students and 21 male students. The sample size for the pilot study represented 10% of the total sample size calculated for the main study. Finally, the responses from the pilot study were analyzed, and the reliability of the questions was evaluated using Cronbach's Alpha measurement, as detailed bellow.

Table 1. Measurement of Cronbach's Alpha for all domains of aggression (physical, verbal, anger and hostility).

No	Variables	Number of items	Cronbach alpha value
1	Physical Aggression	9	.88
2	Verbal Aggression	5	.75
3	Anger	7	.78
4	Hostility	8	.92
5	Exposure to real life violence	30	.76
	All domains of Aggression	29	.83
Overall reliability	Exposure to real life violence	30	.76

In Table 1, the measurement of Cronbach's Alpha shows that the instruments' reliability exceeded the acceptable level. According to [29], a Cronbach alpha result >0.9 is excellent, 0.8-0.9 is good, 0.7-0.8 is acceptable, 0.5-0.6 is questionable, and < 0.5 is poor. In addition to conducting a pilot test to ensure the accuracy of the mathematical procedures, potential practical issues that could negatively impact the success of the full-scale research were also recognized. Modifications were made based on the following criteria:

1. Non-verbal cues from participants regarding any discomfort or embarrassment related to the content or wording of questionnaire items were investigated and adjusted accordingly.
2. General practical issues related to implementation time were identified and considered for the main research.
3. Unclear or ambiguous items in the questionnaire were identified and rectified.
4. The researcher and data collectors checked for completeness and accuracy of all questionnaire responses during data collection, and incomplete questionnaires

were corrected.

Interviews provided more in-depth responses compared to other methods. The purpose of the interviews was to gather additional opinions to support and complement the questionnaire responses. Additionally, the collected data was carefully reviewed for completeness and cleaned before being entered into a computer. Subsequently, the questionnaires were coded and entered into Epi data version 3.1 by a data clerk. The data was then exported to the Statistical Package for Social Science (SPSS) version 23 for further cleaning and analysis. The data analysis involved both descriptive and inferential statistics. Descriptive statistics such as frequency, percentages, means, and standard deviation were used to summarize the demographic variables of the respondents' responses on aggressive tendencies and exposure to real-life violence experiences. Inferential statistics, including independent t-tests, bivariate correlations, were employed to demonstrate the strength of relationships among each domain of aggression and exposure to real-life violence.

4. Results and Discussions

Table 2. Background of respondents (n = 395).

Demographic variable (universities, sex, colleges & Departments)		Fre- quency	Percent- age (%)
Haramaya University	Male	74	18.7
	Female	45	11.3
	Total	119	30.1
Dire dawa University	Male	48	12.1
	Female	82	20.8
	Total	130	32.9
Jigjiga University	Male	89	22.5
	Female	57	14.5
	Total	146	37.0
Colleges	CHMS	139	35.2
	CNCS	85	21.5
	CBE	171	43.3
	Total	395	100.0
	Midwifery	66	16.7
Departments	Nursing	73	18.5
	Mathematics	45	11.4
	Biology	52	13.2
	Management	93	23.5
	Economics	66	16.7
	Total	395	100.0

The data from Table 2 indicates that a slightly higher percentage of male respondents, constituting 53.3% (211), were surveyed compared to female respondents, who made up 46.7% (184). When looking at the breakdown by college level, the majority, 43.3% (171), belonged to the College of Business and Economics (CBE), followed by 35.2% (139) from the College of Health and Medical Science (CHMS), and 21.5% (85) from the College of Natural and Computational Sciences (CNCS). In terms of department selections, the highest proportions were seen in Management with 23.5% (93), followed by Nursing with 18.5% (73), Midwifery with 16.7% (66), Economics with 16.7% (66), Biology with 13.2% (52), and Mathematics with 11.4% (45).

According to the information presented in Table 3, students exhibited an average physical aggression score of 3.22, accompanied by a standard deviation of 0.47, suggesting a general agreement on physical aggressiveness. Conversely, the mean score for verbal aggression was 3.05, with a standard

deviation of 0.57, while the average anger and hostility scores were 3.04 and 3.05, respectively, with standard deviations of 0.49 and 0.44. These results imply a lack of consensus among students regarding verbal aggression, anger, and hostility. Furthermore, the average score for students' exposure to real-life violence was 3.08, with a standard deviation of 0.35, indicating that students had a moderately average level of exposure to real-life violence.

Table 3. Mean and Standard deviation of physical aggression, verbal aggression, anger, hostility and exposure to real life violence (n = 395).

No	Variables	Mean	Std. Deviation
1	Physical aggression	3.22	.47
2	Verbal aggression	3.05	.57
3	Anger	3.04	.49
4	Hostility	3.05	.44
5	Exposure to Real Life Violence	3.08	.35

Table 4. Gender mean of physical aggression, verbal aggression, anger, hostility and exposure to real life violence (n = 395).

Variable	Sex	Mean	Std. Deviation	Std. Error Mean
Physical Aggression	Male	3.27	0.42	0.02
	Female	3.16	0.51	0.03
Verbal Aggression	Male	3.06	0.57	0.03
	Female	3.04	0.57	0.04
Anger	Male	3.04	0.47	0.03
	Female	3.03	0.51	0.03
Hostility	Male	3.07	0.44	0.03
	Female	3.02	0.44	0.03
Exposure to Real Life Violence	Male	3.08	0.34	0.02
	Female	3.09	0.37	0.02

In Table 4, the data indicates that there is a slight disparity between males and females in terms of physical aggression, verbal aggression, anger, hostility, and exposure to real-life violence. Specifically, males scored slightly higher in physical aggression with a mean score of 3.27 compared to females at 3.16, resulting in a difference of 0.11. For verbal aggression, males scored 3.06 while females scored 3.04, showing a difference of 0.02. In terms of anger, males had a mean score of 3.04, slightly higher than females at 3.03, with a difference of 0.01. Hostility scores also favored males, with a mean score of

3.07 compared to 3.02 for females, resulting in a difference of 0.05. Additionally, exposure to real-life violence showed a mean score of 3.08 for males and 3.09 for females, indicating a minimal difference of 0.01. Overall, the data from Table 4

suggests that there are minimal gender-based variations in physical aggression, verbal aggression, anger, hostility, and exposure to real-life violence.

Table 5. Independent *t*-test between gender in physical aggression, verbal aggression, anger, hostility and exposure to real life violence (*n* = 395).

Variables	Levene's Test for Equality of Variances				t-test for Equality of Means			95% CID	
	F	Sig.	T	df	Sig. (2-tailed)	MD	Std. Error	Lower	Upper
Physical aggression	8.78	.00	2.27	393	.02	.10	.04	.01	.20
Verbal aggression	0.00	.97	.34	393	.73	.01	.05	-.09	.13
Anger	0.45	.50	.11	393	.90	.00	.05	-.09	.10
Hostility	0.00	.97	1.23	393	.22	.05	.04	-.03	.14
Exposure to Real Life Violence	2.08	.15	-.28	393	.77	-.01	.03	-.08	.06

As presented in Table 5, there were no statistically significant differences in mean scores between males and females for verbal aggression, anger and hostility ($p > 0.05$, two-tailed), indicating that males and females exhibited equal variances but, there were statistically significant differences in mean scores between males and females for physical aggression ($p < 0.05$, two-tailed). The same non-significant finding was observed for exposure to real-life violence ($p > 0.05$, two-tailed), suggesting equal variances between males and females. Levene's test also confirmed equal assumed variances between males and females in verbal aggression, anger, hostility and exposure to real life violence except for physical aggression which equal variance is not assumed among students in eastern parts of Ethiopia, with a 95% confidence interval of difference ($p > 0.05$, two-tailed for verbal aggression, anger and hostility and $p < 0.05$, two-tailed for physical aggression).

The results of this study are consistent with previous research findings. [19] Have found no significant difference in overall aggressive behaviors between males and females, which aligns with the current study. Similarly, Aail, Peter & Elena's study (cited in [30]) also reported no significant dis-

parities between males and females in physical aggression, supporting our findings. [31] Revealed no statistically significant variance in verbal aggression between male and female participants, which is in line with our results. Additionally, the study by [32] did not find any indication that males and females differ in their experience of anger, consistent with our findings.

Contrary to our results, [20] demonstrated a statistically significant difference in physical aggression between male and female students, with male students exhibiting higher levels of physical aggression. Furthermore, [33, 13], and [33] reported higher prevalence of physical and verbal aggression among males compared to females, which contradicts our current findings. Additionally, our study does not support the findings of [34], which suggested that female physical aggression may be equal to or even higher than that of males. Also, our findings do not align with the results of [33], indicating a gender difference in anger, with women displaying higher levels of anger than men. Finally, our results do not provide support for the sexual selection theory, which posits inherent and significant sex differences in physical aggression.

Table 6. Correlation matrices among exposure to real life violence, physical aggression, verbal aggression, anger and hostility (*n*=395).

No	Name of Variables	Exposure to Real Life Violence	Physical Aggression	Verbal Aggression	Anger	Hostility
1	Exposure to Real Life Violence	1	.405**	.600**	.580**	.768**

No	Name of Variables	Exposure to Real Life Violence	Physical Aggression	Verbal Aggression	Anger	Hostility
2	Physical Aggression		1	-.019	.559**	.306**
3	Verbal Aggression			1	-.024	.649**
4	Anger				1	.533**
5	Hostility					1

** . Correlation is significant at the 0.05 level (2-tailed)

The correlation analysis in Table 6 reveals important relationships between exposure to real-life violence and various domains of aggressive behaviors. The study found that exposure to real-life violence had positive and significant correlations with physical aggression $r(395) = .40^{**}$, verbal aggression $r(395) = .60^{**}$, anger $r(395) = .58^{**}$, and hostility $r(395) = .76^{**}$, all statistically significant at $p < 0.05$. The strongest correlation was between exposure to real-life violence and hostility $r(395) = .76^{**}$. Physical aggression showed a non-significant negative correlation with verbal aggression $r(395) = -.19$, suggesting a potential relationship between students' verbal aggressiveness and their level of physical aggression. However, physical aggression had positive significant relationships with anger $r(395) = .55^{**}$ and hostility $r(395) = .30^{**}$, indicating a link between exposure to real-life violence and the presence of physical aggression, anger, and hostility among students. Verbal aggression was positively and significantly associated with hostility $r(395) = .64^{**}$ and negatively, but insignificantly, associated with anger $r(395) = -.24$. Anger was positively and significantly correlated with hostility $r(395) = .53^{**}$, suggesting the presence of internalized or covert aggression among students due to exposure to real-life violence.

Overall, physical aggression, verbal aggression, anger, and hostility were all found to be positively and significantly correlated with students' exposure to real-life violence, with hostility showing the strongest correlation and physical aggression the weakest. This indicates that exposure to real-life violence can lead to changes in students' levels of hostility, anger, physical aggression, and verbal aggressiveness.

This current findings demonstrate a significant association between exposure to real-life violence and aggressive behavior, consistent with the research conducted by [35] and [36], who identified violence exposure as a significant predictor of aggressive behavior in their study. This correlation is also supported by the work of [37] as referenced in [38], who noted that exposure to violence was associated with an increase in aggressive behavior, even after considering other stressors and previous symptom status. Furthermore, the results align with the research conducted by [39] on urban elementary school children, which revealed a relationship between exposure to community violence and the display of aggression and engagement in aggressive acts through struc-

tural equation modeling analysis. Additional support for these findings can be found in [40], who, similar to the current study, utilized a community sample of young individuals. Allwood's study showed that individuals exposed to high levels of violence in their homes and neighborhoods were more likely to exhibit elevated levels of aggression and delinquency compared to those with lower levels of exposure.

5. Discussion

In our investigation, the primary focus was to examine potential disparities in aggression across genders in various domains, such as hostility, anger, physical aggression, and verbal aggression. Notably, our findings did not reveal significant gender variations in these areas, except for a minor variance in physical aggression, where males demonstrated slightly higher levels of aggression than females. This result aligns with previous studies by [31, 41, 42] and [20], which also found no noteworthy differences between males and females in verbal and physical aggression.

However, broader research on gender and overt aggression has yielded conflicting outcomes, with some studies suggesting that males exhibit greater aggressiveness than females, both physically and verbally. [13] Also highlighted a higher prevalence of physical aggression among male students. A study conducted at Annamalai University in India indicated that male students displayed higher levels of physical aggression, verbal aggression, anger, and hostility compared to their female counterparts [9]. Moreover, [43] proposed that the lower incidence of physical aggression among females compared to males might be influenced by cultural attitudes toward the display of aggression among males and females. For instance, in many parts of Ethiopia, male physical aggression is culturally endorsed, while female physical aggression is not. These cultural attitudes could have contributed to the observed variations in aggressive behavior among male and female students in eastern Ethiopian public universities.

The second objective of the study was to explore the correlation between different forms of aggression (such as anger, hostility, physical, and verbal aggression) among university students in eastern Ethiopia. The findings demonstrated significant positive connections between these forms of aggres-

sion and exposure to real-life violence. These results align with previous research. For example, [44] examined witnessed violence and found that it predicted subsequent aggressive behaviors. Similarly, [45] investigated both witnessing and being a victim of violence as separate factors and found notable associations with lifetime violent offending. Moreover, the study linked witnessing community violence to both reactive and proactive functions of aggression. Previous research has also indicated that prolonged exposure to violent stimuli desensitizes individuals to aggressive behaviors, leading to the normalization and frequent engagement in aggression. Overall, these findings suggest that exposure to a violent environment can lead to increased acceptance and regular practice of aggressive behaviors.

Research has shown that being regularly exposed to violence can make people more open to violent stimuli and lead to the formation of beliefs about aggression. This can also increase the likelihood of engaging in aggressive behaviors. Extended exposure to a violent environment may reinforce aggressive beliefs, making individuals more accepting of using aggression to solve problems. This acceptance, in turn, raises the chances of engaging in aggressive behaviors. [46] Research supports the idea that beliefs about aggression play a crucial role in linking exposure to violence and aggressive behaviors. Previous studies have also suggested that prolonged exposure to violent cues can desensitize individuals to aggressive behaviors, resulting in a normalization of violent actions. Therefore, frequent exposure to a violent environment can contribute to the development and reinforcement of beliefs about aggression, thereby intensifying the impact of violence on aggressive behaviors [47].

In conclusion, this study suggests that being exposed to violence in everyday life can directly lead to aggressive behaviors and also indirectly influence aggressive behaviors through beliefs about aggression. Although it's difficult to find previous and recent studies with identical results, many studies have separately shown a connection between the factors examined in this study and aggressive behavior. Consequently, the current findings were compared to relevant studies. For instance, the present findings, which indicate a significant link between exposure to real-life violence and aggression, are similar to the study by [48], as referenced in [38]. Their research revealed that exposure to violence was associated with increased aggressive behavior after controlling for other stressors and previous symptom status. The present findings also align with the research by [39], who explored factors related to aggression among urban elementary school children and proposed a link between exposure to community violence and the expression of aggression and involvement in aggressive behavior through structural equation modeling analysis. Further support can be found in [40], who, like this study, used a community sample of youth and found that those exposed to high levels of violence in their homes and neighborhoods were more likely to endorse higher levels of aggression and delinquency compared to youth with

lower exposure levels.

6. Limitations of the Study

Upon examining the study, it becomes apparent that there are some noteworthy limitations that need to be taken into account when interpreting the results. Firstly, the research was confined to university students in eastern parts Ethiopia, with a relatively small sample size of 395 individuals. This limited and homogeneous sample may not fully represent the broader university student population, and the findings may not be applicable to younger or older students. Furthermore, the study was narrowly focused on specific forms of aggression - physical, verbal, anger, and hostility - and their connection to exposure to real-life violence, while neglecting other potential influential variables in the students' environment and personal lives. Another restriction is the geographic limitation of the research to the eastern parts Ethiopia in the Oromia Regional State, raising questions about the generalizability of the findings to universities in different regions or countries.

Moreover, the cross-sectional design of the study means that it was unable to establish causal relationships between the predictor variables and exposure to real-life violence. Additionally, the researchers recognized the potential influence of human biases, particularly with regards to students' self-reported experiences in the digital realm, which could be hard to verify and subject to distortion or underreporting.

Considering these limitations, the authors rightly emphasize the need for further research with larger and more diverse samples, conducted over extended periods, to validate and build upon the conclusions of this study, which may not be universally applicable to other educational settings beyond the Oromia Regional State in eastern parts of Ethiopia.

7. Recommendations

The study highlights a significant prevalence of aggression among students at Eastern Ethiopian Public University. It's clear that exposure to real-life violence is closely linked to aggressive behavior within this population, posing serious social and psychological challenges for both the community and the university students. As mentioned in the literature, aggression is a public health concern that is intricately connected with violence, potentially jeopardizing the safety and well-being of the students and negatively impacting their social interactions within the university environment. Thus, aggressive behavior not only endangers the perpetrators but also puts them at risk of engaging in antisocial and self-destructive activities such as substance abuse, incarceration, depression, and even suicidal tendencies. Based on these findings, recommendations have been proposed for the university students, their families, and the entire community. Recommendations include utilizing various student associations as platforms to educate students about the impact of

violence exposure and engagement in violent behavior on themselves, their families, and the community. Moreover, it is essential to promote social skills, provide non-aggressive decision-making alternatives, and raise awareness about the perceived risks or consequences of aggressive behaviors to reduce its prevalence among the study population. Early intervention involving educating families about their role in discouraging aggressive behavior and fostering pro-social behaviors in their children is also crucial.

Furthermore, mobilizing and educating university students about the detrimental effects of aggressive and related behaviors on the well-being of the university community is imperative. Collaboration among university bodies like the student services and youth office, along with psychologists, is recommended to address the issue effectively. Psychologists can play a pivotal role in devising behavior change strategies and aiding the university students in benefiting from such initiatives.

Abbreviations

UNESCO	United Nations Educational Scientific and Cultural Organization
SAVE	Screen for Adolescent Violence Exposure Questionnaire
SPSS	Statistical Package for Social Science
CBE	College of Business and Economics
CHMS	College of Health and Medical Science
CNCS	College of Natural and Computational Sciences
HU	Haramaya University
DDU	Dire Dawa University
JJU	Jigjiga University
CEBS	College of Education and Behavioral Science

Author Contributions

Gizachew Assefa Dagne is the sole author. The author read and approved the final manuscript.

Conflicts of Interest

The author declares no conflicts of interest.

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