

Adverse Childhood Experiences and their consequences among students of Tbilisi State University

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Abstract

Background: Adverse Childhood Experiences (ACEs), defined as potentially traumatic events occurring before the age of 18, include various forms of abuse, neglect, and household dysfunction, and have been shown to significantly affect health, well-being, and life opportunities.

Aim: The aim of study is to explore relationship between categories of different types of abuse and health-risk behaviors, cognitive impairments and academic challenges among students at Ivane Javakhishvili Tbilisi State University (TSU), Georgia.

Methods: The study employed a quantitative research method, distributing an electronic questionnaire to all TSU students in June 2021, which included internationally recognized ACEs-related questions along with additional questions related to health, behaviors, and learning.

Results: The results revealed that a notable proportion of both female and male students experienced physical violence, with male students reporting it more frequently than females. Psychological violence was encountered by a considerable share of students, with slightly higher prevalence among males. Additionally, reports of sexual violence varied significantly by gender, with female students being more affected than their male counterparts. The study examined health-risk behaviors, with 17.2% of students identified as active smokers, 3.2% as drug users, and 10.0% having suicidal thoughts or attempts. Notably, ACEs were strongly associated with increased rates of smoking, drug use, and suicidal behavior, with victims of sexual violence showing the highest prevalence of these behaviors.

Conclusions: The research highlights the significant impact of ACEs on cognitive function and academic performance, with nearly half of the students reporting attention problems, and many victims of violence experiencing difficulties with learning. The findings underscore the need for targeted interventions in educational settings to support students affected by ACEs and promote their long-term well-being. (TCM-GMJ June 2025; 10 (1): P28-P32)

Keywords: Adverse Childhood Experiences, Students, health-risk behaviors, cognitive function, academic performance.

Introduction

The prevalence of Adverse Childhood Experiences (ACEs) is shaped by the socio-economic and cultural norms of different countries, which also play a crucial role in determining overall health outcomes. Notably, child maltreatment tends to be more common in regions with lower per-capita income levels (1).

According to the definition from CDC's Violence Preven-

tion Division Adverse Childhood Experiences (ACEs) refer to „potentially traumatic events that occur in childhood (before the age of 18) and can have lasting negative effects on health, well-being, and life opportunities. These experiences include various forms of abuse (physical, emotional, sexual), neglect (physical, emotional), and household dysfunction (such as exposure to domestic violence, substance abuse, mental illness, parental separation, or incarceration of a household member)” (2).

Adverse Childhood Experiences are prevalent worldwide, with significant variations across different regions. Most studies on Adverse Childhood Experiences have been conducted in the United States, Europe, Japan, and New Zealand (3-6). Studies have revealed prevalence of ACEs among young people and underscored its effects on their physical and mental well-being, behaviours, social

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Received March 17, 2025; accepted April 21, 2025.

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interactions, and academic performance (7-10).

At global level a comprehensive meta-analysis encompassing 206 studies from 22 countries, involving 546,458 adult participants, found that approximately 60% of adults reported experiencing at least one ACE. Specifically, 22.4% experienced one ACE, 13.0% two ACEs, 8.7% three ACEs, and 16.1% reported four or more ACEs (11). In **United States** data from the Behavioral Risk Factor Surveillance System (2011–2020) revealed that approximately two-thirds of U.S. adults reported at least one ACE, with one in six reporting four or more ACEs (12).

The consequences of ACEs have also been examined in some Central and Eastern European countries, including Romania, North Macedonia, Latvia, Lithuania, Albania, Serbia, and Montenegro (13-17). However, there is a significant lack of publications on this topic in low- and middle-income countries, such as the Republic of Moldova, Ukraine, and others (18, 19). In Georgia, no similar research has been conducted among students.

The aim of study is to explore relationship between categories of different types of abuse and health-risk behaviors, cognitive impairments and academic challenges among students.

Methods

A quantitative research method was used for the study. The link to the electronic version of the questionnaire was sent to all TSU students via their corporate email in June 2021. The questionnaire included internationally recognized questions for identifying ACEs, as well as additional questions specifically designed for this survey related to behavior, health, and learning (20). The study was voluntary and anonymous, and all students were informed about this.

Data processing was conducted using the SPSS 23 statistical software. Approval was obtained from the NCDC Bioethics Committee (#2022-002).

Results and discussion

A total of 1,343 questionnaires were completed by students aged 18 to 25. After excluding incomplete responses, data from 1,239 students were analyzed. 83.1% of respondents were female. Nearly a quarter (23.7%) of respondents were students from the Faculty of Humanities, while approximately one-fifth were from the Faculty of Psychology and Educational Sciences. Students from two faculties (Faculty of Law, Faculty of Economics and Business) participated almost equally (15.7% and 15.5%), while 10% of the respondents were from the Faculty of Medicine. The lowest number of respondents came from the Faculty of Exact and Natural Sciences and the Faculty of Social Sciences (8% and 7.9%, respectively).

Statistical analysis of the data revealed that a notable proportion of both female and male students had experienced some form of physical violence, with male students reporting it more frequently than females (17.2% vs 9.4%). The prevalence of physical violence did not vary significantly across faculties (Table 1); however, the highest rates were observed among students from the Faculty of Psychology and Educational Sciences (12.6%) and the Faculty of Exact and Natural Sciences (12.1%).

The study revealed that nearly one-fifth of the surveyed students had experienced some form of psychological (emotional) violence. Among the surveyed students, a higher proportion of female students than male students had experienced some form of sexual violence, with unwanted sexual touching being the most common form (19.7% vs 5.7%).

This study explores health-risk behaviors among students, including smoking, drug use, and suicidal thoughts or attempts. The results showed that 17.2% of respondents are active smokers, 3.2% use drugs, and 10% have either attempted or considered suicide. Among active smokers, 20.6% are male, while 16.5% are female students. In terms of drug use, the percentage of males is higher (9.1%) compared to females (2%). This gender difference was found to be statistically significant (Table 2).

Compared to other types of violence, the number of smokers is highest among victims of sexual violence (40.8%). While only 13.6% of students without a history of violence are smokers, 40.8% of victims of sexual violence smoke. As for drug use, 5.3% of victims of physical violence report being users (Table 3). There is also a gender difference in cases of suicidal thoughts/attempts. 10.9% of female students and 6.2% of male students reported having thought about and/or attempted suicide (Table 4). Compared to other types of violence, suicidal thoughts/attempts are highest among victims of sexual violence (22.4%) and are also higher among victims of psychological (emotional) violence (17.3%) (Table 5).

Multiple studies confirm that violence and the acute or chronic stress it causes negatively impact cognitive abilities. In our case, nearly half of the students report attention problems (44.7%), which is twice as high as the rate among students without a history of violence (31.5%). Among victims of emotional, physical, and sexual violence, the prevalence of attention issues is significantly higher. More than half of students with a history of sexual violence (63.3%) experience difficulties with learning. A similar pattern is observed among victims of emotional (51.1%) and physical violence (48.9%), where nearly half also report learning problems (Table 6).

The findings from this study align with global data on ACEs, showing that exposure to childhood trauma is a widespread issue affecting individuals across various socioeconomic and cultural backgrounds. Although most studies on ACEs have been conducted in high-income countries, this research contributes to the limited body of literature on the subject within low- and middle-income countries, particularly in Georgia. The high prevalence of violence experienced by students, particularly sexual violence, and its associated negative outcomes, such as higher rates of smoking, drug use, and suicidal ideation, further demonstrates the urgency of addressing ACEs at both individual and societal levels.

The gender differences observed in the prevalence of ACEs, with higher rates of violence and health-risk behaviors among male students, raise important questions about the role of gender in the manifestation and consequences of childhood trauma. The relationship between ACEs and

cognitive and academic challenges is also significant, with victims of violence reporting more difficulties with attention and learning. These findings emphasize the importance of early intervention and support for students affected by ACEs to mitigate their long-term impact on cognitive development and academic success.

Overall, this study underscores the need for comprehensive strategies to prevent and address ACEs, particularly in educational settings. Universities and other institutions of higher learning must prioritize the mental and physical health of students, providing resources and support systems to help those who have experienced trauma. Public health initiatives should also be expanded to raise awareness about the long-term consequences of ACEs and to promote early intervention programs aimed at reducing their prevalence. This research highlights the necessity of a multi-faceted approach to combat the cycle of trauma and violence, fostering an environment that promotes the well-being and success of all students, particularly those who have endured adversity in their childhood.

Conclusion.

This study provides valuable insights into the prevalence

of Adverse Childhood Experiences (ACEs) among students at Ivane Javakhishvili Tbilisi State University (TSU) and highlights the significant impact these experiences have on their physical and mental health, behaviors, and academic performance. The research reveals troubling statistics regarding the various forms of violence that students have encountered, including physical, emotional, and sexual abuse, and underscores the profound consequences of these experiences on their well-being. Addressing ACEs is not only a matter of individual health, but also of social and academic development. The findings underscore the need for targeted interventions in educational settings to support students affected by ACEs and promote their long-term well-being.

Study Limitation. A limitation of the study is that it included students from only one higher educational institution, albeit the largest one.

Acknowledgments. The work reported in this publication was funded by the NIH-Fogarty International Trauma Training Program iCREATE: Increasing Capacity for Research in Eastern Europe.

Table 1. Exposure to physical violence by Faculty

TSU Faculty	Physical Violence	
	N	%
Economics and Business	20	10.4
Exact and Natural Sciences	12	12.1
Law	18	9.3
Medicine	13	9.3
Social and Political Sciences	11	11.2
Psychology and Educational Sciences	28	12.6
Humanities	31	10.5

*p<0.05

Table 2. Smoking behaviours and drug use among students by sex

Sex	Smoking Behaviour N (%)	Drug Use N (%)
Female	170 (16.5%)	21 (2.0%)
Male	43 (20.6%)	19 (9.1%)
Total	213 (17.2%)	40 (3.2%)

*p<0.05

Table 3. Relationship between categories of different types of abuse and smoking/drug use

Type of exposure	smoker		Drug user	
	N	%	N	%
Type of abuse				
Physical abuse	22	16.5	7	5.3
Emotional abuse	84	20.2	15	3.6
Sexual abuse *	20	40.8	2	4
No abuse	87	13.6	16	2.5
Total	213	17.2	40	3.2

*p<0.01

Table 4. Suicidal Thoughts/Suicide attempts by sex

Sex	N	%
Female	112	10.9
Male	13	6.2
Total	125	10.1

Table 5. Relationship between categories of different types of abuse and suicide

Type of exposure	suicide	
	N	%
Type of abuse		
Physical abuse*	19	14.3
Emotional abuse*	72	17.3
Sexual abuse*	11	22.4
No abuse*	23	3.6
Total	125	10.1

*p<0.01

Table 6. Relationship between categories of different types of abuse and cognitive impairments and academic challenges

Type of exposure	Memory problems		Attention problems		Learning problems	
	N	%	N	%	N	%
Type of abuse						
Physical abuse	44	33.1	72	54.1	65	48.9
Emotional abuse	146	35.2	250	60.2	212	51.1
Sexual abuse	21	42.9	30	61.2	31	63.3
No abuse	114	17.8	202	31.5	169	26.3
Total	325	26.2	554	44.7	477	38.5

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