ORIGINAL ARTICLE

UNVEILING THE INVISIBLE SCARS: THE PSYCHOSOCIAL EFFECTS OF BULLYING IN UNDERGRADUATE STUDENTS OF A UNIVERSITY OF PESHAWAR, PAKISTAN

Nasir Hayat[1], Aiyna Usman[2], Muhammad Arsalan[1], Kashaf Saif[3], Syed Muhammad Ahmad[1], Muhammad Kashif[1], Ahmad Sanan[1], Abdul Muiz[1], Fatima Ali[3], Irtiza Batool Ahmad[1]

[1]Lady Reading Hospital, Peshawar, Pakistan

[2]Pakistan Institute of Medical Sciences, Islamabad, Pakistan

[3]Khyber Teaching Hospital, Peshawar, Pakistan

ABSTRACT

Objective: To assess the prevalence of bullying victimization and its psychosocial correlates among undergraduate students at the University of Peshawar.

Materials and methods: This cross-sectional descriptive study was conducted among undergraduate students at the University of Peshawar from January 2023 to June 2024. Data were collected using Olweus and Rosenberg's scale. Responses from 358 students were obtained. Data were analyzed using the Statistical Package for the Social Sciences (SPSS v.20.0).

Results: Of the 358 respondents, 232 (64.8%) had been victims of bullying. Of these, 66.8% were female. A total of 30.2% of respondents reported being bullied in childhood, 24.1% in adolescence, and 42.2% in adulthood. Verbal bullying was the most common form, reported by 64.5% of respondents, followed by physical bullying (19.4%) and cyberbullying (12.9%). A significant association between gender and type of bullying was found (P = .006). Bullying was associated with Anger in 20.6% of respondents, Sadness in 20%, Anxiety in 16.4%, Shame in 14.2%, Depression in 13.6%, and Fear in 13.3%. A total of 75.4% of students reported adverse social experiences related to bullying victimization; among these, 13.1% had trouble making new friends, 25.4% felt lonely, and 36.9% avoided social interaction. Among the 232 respondents with bullying victimization, the mean Rosenberg Scale score was 18.50 ± 6.23. By category, 17.7% had low self-esteem, 77.6% had normal self-esteem, and 4.7% had high self-esteem.

Conclusion: Bullying victimization, particularly verbal bullying, was highly prevalent among undergraduate students at the University of Peshawar and was associated with adverse psychological and social outcomes reported by participants.

Keywords: Bullying, verbal bullying, psychological effects, social effects

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INTRODUCTION

Bullying is defined as repeatedly exposing a victim to physical, mental, or verbal abuse by another person. The perpetrator, or bully, can be an individual or a group. Acts of bullying include the use of physical force, such as hitting, kicking, or punching, as well as verbally insulting the victim by taunting or calling names. [1] Nowadays, cyberbullying is also a major form of bullying victimization. [2] A study found that the prevalence of traditional bullying victimization was about 36%, while that of cyberbullying was 15%. [3] Studies have shown that youth with certain physical features, such as obesity or obvious disability, are more likely to be bullied. [4] Bullying is a very common phenomenon in schools, colleges, and universities, and is experienced by people of all races, cultures, and ethnicities at some point in their lives. [5,6] It is therefore considered an important global public health issue. [7] Several studies have shown that the majority of US youth experienced bullying in middle school. According to a study, 35% of youth have experienced recurrent bullying. Similarly, another survey of 3530 students from the West Coast region of the United States found that 22% of students reported being involved in bullying either as a victim or a bully. [8]

Many studies have concluded that the African region has the highest prevalence of bullying among adolescents (47.36%). [9] Middle school students in low- and middle-income countries have an average peer victimiza-

Correspondence
Ahmad Sanan
House Officer
Lady Reading Hospital, Peshawar, Pakistan
Email: ahmadsanan05@gmail.com
Cell: +92-330-5430831
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tion rate of 34.2%, with rates of 44.2% in Jordan, 33.6% in Lebanon, 31.9% in Morocco, 39.1% in Oman, and 20.9% in the United Arab Emirates. [10]

Several studies have also been conducted in Pakistan to assess the prevalence of bullying. For example, in a study of 4676 Pakistani students, 41% reported being bullied.[11] Another study conducted in Nawabshah City, Pakistan, found that 94% of boys and 85% of girls had been victims of bullying.[12]

Bullying is associated with long-term effects on mental as well as physical health. [13] People who have been bullied are at a greater risk of experiencing depression, anxiety, social isolation, and having suicidal thoughts. [14] A study conducted by Hawker and Boulton revealed a strong link between bullying victimization and loneliness, depression, and a reduction in the level of self-esteem. [15] According to another study, children who had been bullied at school had double the chance of developing depression than those who had not been bullied. [16]

Numerous studies have examined the prevalence and psychosocial outcomes of bullying among students globally. However, very few studies have explored the prevalence and impact of bullying among university students in Pakistan, especially in Peshawar. Therefore, the aim of this study was to determine the prevalence of bullying victimization and to examine its psychosocial correlates among undergraduate students at the University of Peshawar.

MATERIALS AND METHODS

This cross-sectional descriptive study was conducted among undergraduate students at the University of Peshawar from January 2023 to June 2024. Sample size was calculated using Open Epi online software with the following values: confidence level = 95% and anticipated frequency (p) = 59.1%. [17] The calculated sample size was rounded to 400. Students aged 18 to 26 years enrolled in undergraduate bachelor's programs at the University of Peshawar were eligible for inclusion. Data were collected using a nonprobability, voluntary-response sampling approach. Eligible undergraduate students were invited to participate by completing a self-administered questionnaire, which they returned anonymously after obtaining approval from the Ethical Board, using a validated instrument adapted from Olweus and the Rosenberg scale. [18, 19] Informed verbal consent was obtained, and the questionnaires, along with sealed envelopes, were distributed to volunteer students. A collection box was placed in the administrative block for a week, and then the sealed envelopes were collected. A total of 358 completed responses were analyzed. The frequency of bullying victimization was estimated. Various factors, such as socioeconomic background, support from parents and friends, psychological responses to bullying, effects on social life, and self-esteem, were also taken into account. The data were analyzed using the Statistical Package for the Social Sciences (SPSS v.20.0).

RESULTS

The calculated sample size was 400; however, some questionnaires were not returned, and others were incompletely filled out, so they were excluded. The adjusted sample size was 358. Of these 358 respondents, 232 (64.8%) students had been victims of bullying. Of these, 155 (66.8%) were female students, and 77 (33.2%) were male students. A total of 70 (30.2%) of the respondents reported being bullied in childhood, 56 (24.1%) in adolescence, and 98 (42.2%) in adulthood. Among respondents, bullying lasted a few weeks for 77 (33.2%), from several months to a year for 38 (16.4%), and several years for 38 (16.4%). Verbal bullying was the most common form, reported by 160 (64.5%), followed by physical bullying by 48 (19.4%), cyberbullying by 32 (12.9%), and other forms of bullying (by parents, siblings, and relatives) by 8 (3.2%), the least common among respondents (Fig. 1).

In Table 1, the chi-square test of association revealed a significant association (P = 0.006) between gender and the type of bullying experienced (The Chi-square statistic is significant at the .05 level).

Among the respondents, 20 (8.6%) had a poor socioeconomic background, 131 (56.5%) had a satisfactory socioeconomic background, and 81 (34.9%) had a good socioeconomic background. The chi-square test of association did not reveal a significant association between socioeconomic status and the pattern of bullying experienced by respondents (P > .05). A total of 178 (76.7%) respondents received help and support from family, friends, and teachers, while 54 (23.3%) did not receive any help.

The majority of students reported more than one psychological effect associated with bullying. Anger was reported by 68 (20.6%) respondents, and sadness by 66

Table No 1: Gender differences in types of Bullying

Types of Bullying	Gender of the Participant				Pearson	Chi-Square Test
	male		female			
	Frequency	N %	Frequency	N %	Chi-square Sig.	14.639 .006*
Physical Bullying	25	32.5%	23	14.8%		
Verbal Bullying	46	59.7%	114	73.5%		
Cyber Bullying	10	13.0%	22	14.2%		
Other types of bullying	2	2.6%	6	3.9%		

Table No 2: Psychological Response to Bullying

Effects Of Bullying	Responses	
	N	Percent
Anger	68	20.6%
Sadness	66	20.0%
Anxiety	54	16.4%
Shame	47	14.2%
Depression	45	13.6%
Fear	44	13.3%
Others	6	1.8%
Total	330	%100.0
p-value		0.002

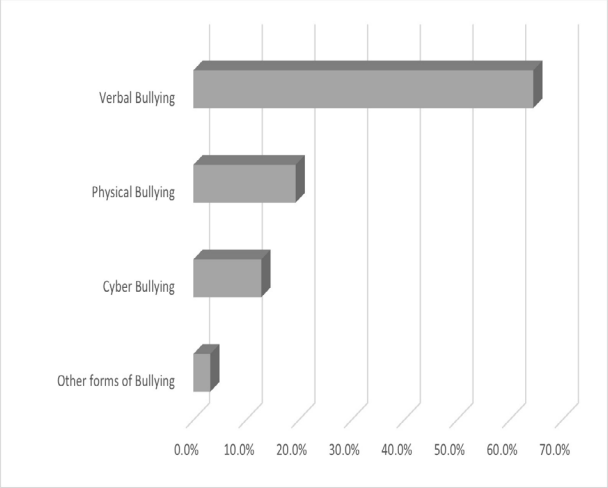

Fig 1: Percentage of various types of bullying

(20%), making these the most common psychological effects (Table 1). The chi-square test of association revealed a significant association between the type of bullying experienced and the psychological effects in respondents (P = .002).

A total of 170 (75.4%) students reported social difficulties associated with bullying victimization; among these, 33 (13.1%) had lost friends or had trouble making new friends, 64 (25.4%) felt isolated and lonely, and 93 (36.9%) avoided social interaction. A total of 62 (24.6%) reported no difficulties related to bullying victimization. Among the 232 respondents who experienced bullying victimization, the mean Rosenberg Scale Score was 18.50 ± 6.23. Based on Rosenberg Scale Categories, 41 (17.7%) scored in the range of 0-15 on the Rosenberg Self-Esteem Scale, which indicates low self-esteem; 180 (77.6%) scored in the normal range; and 11 (4.7%) scored in the high self-esteem range.

DISCUSSION

The results of this study provide important insights into the frequency, types, and psychological correlates of bullying victimization among undergraduate students. The majority of the adolescents in the survey reported having experienced bullying victimization, indicating a worrying frequency (64.8%) of bullying among them. The frequency is very high compared to the previous studies conducted in the US, the Middle East, and African countries. The comparatively higher prevalence observed in our study may reflect differences in contextual and cultural factors, but also may be partly explained by methodological differences. Unlike studies that assess bullying within a specific recent period or a single development stage, our study captured self-reported bullying experiences across childhood, adolescence, and adulthood. This broader recall window may have increased the probability of identifying participants with any history of bullying victimization and may also have introduced recall bias. In opposition to previous studies that have consistently shown a higher prevalence of bullying among males than females, our findings indicate a reverse trend, with females experiencing higher rates of bullying. [20] This difference may be due to various factors, including differences in sample populations, data collection methods, or cultural contexts.

Consistent with previous research, verbal bullying emerged as the most common form (64.5%), followed by physical (19.4%) and cyberbullying (12.9%). Similarly, the findings of this study are consistent with previous literature reporting an association between bullying victimization and adverse psychological experiences among students. [21] It is interesting to note that our study indicates that socioeconomic status does not significantly correlate with the pattern of bullying experienced or its impact on social life. This contrasts with previous research, which suggests that individuals from lower socioeconomic backgrounds are more frequently subjected to bullying, thereby highlighting socioeconomic disparities in bullying prevalence. [22] This difference may be due to the study setting, which is in a developing country.

The self-esteem analysis using the Rosenberg Self-Esteem Scale revealed an intriguing finding. The majority of respondents fell within the normal range. This contrasts with previous studies that typically show lower self-esteem among victims. Several explanations could account for this discrepancy. One possibility is the self-report nature of our study, which may have led participants to overestimate their self-esteem. Additionally, effective coping mechanisms or supportive behaviors may have influenced how participants reported their self-esteem and bullying victimization. [23] The findings may also be understood in relation to the cultural and institutional context of Pakistani Universities. [24] In such settings, interpersonal relationships are often shaped by strong social hierarchies, peer group dynamics, and gender norms, which may influence both the experience and reporting of bullying victimization. [25] Female students may be more likely to report verbal and relational forms of bullying, whereas male students may underreport such experiences because of social expectations related to masculinity and emotional restraint.[24,25] In addition, concerns about stigma, reputation,

and social judgment may discourage students from openly discussing bullying or its psychological correlates.[23] Institutional factors may also be relevant, as many universities in low-resource settings have limited formal mechanisms for reporting bullying, addressing peer victimization, or providing accessible psychological support to affected students.[24,26] The higher proportion of female participants reporting bullying victimization in our study may reflect context-specific social and gender dynamics rather than a simple difference in exposure alone.[25] It is possible that female students are more likely to recognize and report verbal, relational, or emotionally distressing experiences as bullying, whereas male students may normalize similar experiences or be less willing to disclose them. This interpretation should be considered cautiously, but it may partially explain why our findings differ from studies reporting higher bullying prevalence among males.[24, 26]

Because of the cross-sectional design, temporal relationships and causality cannot be established. The observed psychological and social outcomes should therefore be interpreted as associations reported by participants rather than as consequences directly attributable to bullying victimization. In addition, the use of a non-probability, voluntary-response sampling approach may limit the generalizability of the findings. Students who chose to participate may differ from those who did not respond, introducing the possibility of self-selection and non-response bias. Because bullying experiences were self-reported across multiple life stages, the study is also subject to recall bias. Participants may have remembered or interpreted experiences from childhood, adolescence, and adulthood differently, which may have influenced the reported prevalence.

CONCLUSION

Bullying is notably prevalent among undergraduate students at the University of Peshawar, with verbal bullying the most commonly reported type. Bullying victimization was associated with adverse psychological responses and social difficulties reported by participants. These findings highlight the need for further analytical and longitudinal research to better understand the temporal relationship between bullying victimization and psychological well-being and to inform support strategies for affected students.

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Authors Contribution:

Following authors have made substantial contributions to the manuscript as under

Authors	Conceived & designed the analysis	Collected the data	Contributed data or analysis tools	Performed the analysis	Wrote the paper	Other contribution
Hayat N	✓	✓	×	×	✓	×
Usman A	✓	×	✓	✓	✓	×
Arsalan M	✓	✓	×	×	×	✓
Saif K	✓	×	✓	✓	✓	×
Ahmad SM	✓	✓	×	×	×	✓
Kashif M	✓	×	✓	✓	✓	×
Sanan A	✓	×	✓	✓	✓	×
Muiz A	✓	✓	×	×	×	✓
Ali F	✓	×	✓	✓	✓	×
Ahmad IB	✓	✓	×	×	×	✓

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Ethical Approval:

This Manuscript was approved by the Ethical Review Board of Khyber Medical College, Peshawar. Vide No. 57/DME/KMC, Dated 30/01/2024.