International Journal of Integrated Health Sciences (IJIHS)
ISSN Print: 2302-1381; ISSN Online: 2338-4506

Original Article

Association Between Bullying Experience and Emotional and Behavioral Problems Among High School Students in Banda Aceh, Indonesia

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Article History

Received: March 09, 2026
Accepted: April 29, 2026
Published: June 30, 2026

DOI: 10.15850/ijihs.v14n1.4819
IJIHS. 2026;14(1):38-43

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Abstract

Background: Bullying is a significant mental health concern among adolescents and is associated with emotional and behavioral disturbances. However, evidence regarding its impact among high school students in Banda Aceh, Indonesia remains limited.

Objective: To describe patterns of bullying victimization and examine their association with emotional and behavioral problems among high school students in Banda Aceh.

Methods: A cross-sectional study was conducted on 180 purposively selected students aged 14–17 years in high schools in Banda Aceh, Indonesia, in February 2025. Bullying level and type were assessed using the Revised Olweus Bully/Victim Questionnaire (OBVQ-R), and emotional–behavioral problems were measured with the Strengths and Difficulties Questionnaire (SDQ). Associations were analyzed using Chi-square and Fisher's Exact tests.

Results: Among the participants, 65.0% were female and 45.6% were in Grade X. Overall, 72.8% reported experiencing bullying victimization. Moderate and severe bullying were reported by 20.0% and 7.2% of students, respectively. Physical bullying (43.9%) and verbal bullying (32.2%) were the most frequently reported forms, whereas cyberbullying was reported by 12.8% of students. No statistically significant association was found between bullying level and emotional and behavioral problems based on SDQ difficulty scores (p=0.932) or prosocial behavior scores (p=0.670).

Conclusion: Although no statistically significant association was identified, bullying may still adversely affect students' emotional wellbeing and relationship with others. These findings underscore the need for early detection, mental health screening, and sustained school-based preventive strategies to mitigate possible long-term consequences of bullying among adolescents.

Keywords: Adolescents, bullying, emotional and behavioral problems, high school students

Introduction

Bullying is a significant public health and educational concern affecting children and adolescents across many countries. It refers to repeated aggressive behavior characterized by a power imbalance between perpetrator and victim and may occur in physical, verbal, social, or cyber forms. Previous research has shown that students who experience bullying are more likely to report emotional distress, low self-esteem, difficulties in peer relationships, and behavioral problems. In some cases, these effects may persist into later adolescence and adulthood, with potential implications for long-term psychosocial development.[1]

In Indonesia, bullying continues to be reported in school settings. In January 2024, the Indonesian Child Protection Commission (KPAI) called for stronger involvement of government, families, schools, and communities in addressing bullying in educational settings, underscoring continuing concerns regarding student safety and well-being.[2]

Globally, the prevalence of bullying victimization varies substantially across populations and settings. A recent meta-analysis involving more than 600,000 children and adolescents estimated a pooled prevalence of bullying victimization of approximately 25%. Adolescence is a critical developmental period marked by rapid physical, psychological, and social changes that may increase vulnerability to peer victimization and emotional–behavioral difficulties.[3]

Although numerous studies have examined the relationship between bullying victimization and emotional or behavioral problems, findings remain inconsistent. Some studies report clear associations, whereas others demonstrate weaker or non-significant relationships, depending on context, population, and measurement approaches. This inconsistency suggests that contextual factors may play an important role in shaping both exposures to bullying and its psychological consequences.

In Indonesia, particularly in regions such as Banda Aceh, empirical evidence on this association remains limited. The sociocultural environment, school characteristics, and adolescent social dynamics in this region may differ from other settings, potentially influencing both the prevalence and impact of bullying. However, local data addressing this issue are still scarce.

Therefore, it is important to examine how bullying occurs in this context and whether it is associated with emotional and behavioral problems among students. This study aimed to describe patterns of bullying victimization and to examine their association with emotional and behavioral problems among high school students in Banda Aceh.

Methods

This study used a quantitative cross-sectional design to examine the relationship between bullying experiences and emotional and behavioral problems among high school students in Banda Aceh, Indonesia. Data collection was carried out during the 2024/2025 academic year in three selected senior high schools. The schools were chosen to capture variation in student characteristics across different educational settings while maintaining confidentiality in accordance with ethical research requirements.

The study population comprised approximately 1,500 students from grades X to XII across the selected schools. Sample size was determined using the finite population correction formula, assuming a 95% confidence level, a proportion of 0.5, and a precision of 0.08. This resulted in a minimum sample size of 156 participants. To improve statistical power and reduce the potential impact of non-response or incomplete data, the final sample size was increased to 180 students.[4,5]

Participants were selected using proportional stratified random sampling based on grade level (X, XI, and XII). Within each stratum, students were randomly selected from official school enrollment lists, ensuring proportional representation across grades and schools. Eligible participants were adolescents aged 14–17 years who were enrolled during the study period. Students were included regardless of whether they had experienced bullying, allowing comparison across different levels of exposure. Students who were absent during data collection or who did not provide written informed consent from themselves and their parents or legal guardians were excluded from the study.

Bullying experience was considered the independent variable, while emotional and behavioral problems served as the dependent variable. Bullying was assessed using the Revised Olweus Bully/Victim Questionnaire (OBVQ-R), a 39-item self-report instrument rated on a five-point Likert scale that assesses bullying victimization and perpetration. The OBVQ-R has demonstrated good psychometric properties in adolescent populations, including evidence of construct validity and satisfactory internal consistency.[6]

Emotional and behavioral problems were measured using the self-report version of the Strengths and Difficulties Questionnaire (SDQ). The questionnaire consists of 25 items rated on a three-point scale and covers emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and prosocial behavior. The Total Difficulties Score (0–40) was calculated as the sum of the four difficulty subscales, excluding the prosocial subscale, and categorized according to established SDQ scoring thresholds.

The Indonesian self-report SDQ has been evaluated for adolescent behavioral and emotional problem screening. Questionnaires were administered during school hours in a classroom setting after obtaining permission from school authorities. To minimize response bias, students completed the instruments anonymously and without teacher supervision.[7–9]

Data were analyzed using SPSS software. Descriptive statistics were used to summarize participant characteristics and study variables. Before inferential analysis, data distribution was assessed to determine the appropriate statistical tests. Associations between bullying levels and SDQ categories were examined using Chi-square or Fisher's Exact tests where appropriate. Statistical significance was set at $p < 0.05$ with a 95% confidence level.

Ethical approval for the study was obtained from the Institutional Ethics Committee of Universitas Syiah Kuala (No. 002/EA/FK/2025). Written informed consent was obtained from all participants and their parents or legal guardians prior to data collection. Participation was voluntary, and confidentiality and anonymity were strictly maintained throughout the study.

Results

This study included 180 high school students from three senior high schools in Banda Aceh who met the inclusion criteria. Participants were aged 14–17 years, with a median age of 16 years. The sample consisted of 65% female and 35% male students. Most participants were in Grade X (45.5%), followed by Grade XI (37.2%) and Grade XII (17.2%). Table 1.

Overall, 72.8% of students reported mild bullying exposure, 20.0% reported moderate bullying, and 7.2% reported severe bullying. Across schools, the highest proportion of mild bullying was observed in SMA Y (81.6%), while the highest proportion of severe bullying was found in SMA Z (10.0%).

Table 1 Characteristics of Research Subjects by School

Characteristics	Schools			Total (n=180)
	SMA X (n=60)	SMA Y (n=60)	SMA Z (n=60)	
Age (years), median (min-max)	16 (14 – 17)	16.5 (14 – 17)	15 (14 – 17)	
Gender, n (%)				
Male	19 (21.7)	22 (36.7)	22 (36.7)	63 (35)
Female	41 (68.3)	38 (63.3)	38 (63.3)	117 (65)
Education Level, n (%)				
Grade X	30 (50)	18 (30)	34 (56.7)	82 (45.5)
Grade XI	21 (35)	30 (50)	16 (23.9)	67 (37.2)
Grade XII	9 (15)	12 (20)	10 (16.7)	31 (17.2)
Bullying Level				
Mild	42 (70)	49 (81.6)	40 (66.6)	131 (72.8)
Moderate	13 (21)	9 (15)	14 (23.3)	36 (20)
Severe	5 (8.3)	2 (3.3)	6 (10)	13 (7.2)
Type of Bullying, n (%)				
Physical	27 (45)	27 (45)	25 (41.6)	79 (43.9)
Verbal	15 (25)	21 (35)	22 (36.7)	58 (32.2)
Social	4 (6.6)	2 (3.3)	2 (3.3)	8 (4.4)
Psychological	3 (5)	2 (3.3)	2 (3.3)	8 (4.4)
Cyberbullying	8 (13.3)	7 (11.6)	8 (13.3)	23 (12.8)
Sexual	3 (5)	1 (1.6)	0 (0)	4 (2.2)

Regarding types of bullying, physical bullying was the most frequently reported form (43.9%), followed by verbal bullying (32.2%). Cyberbullying accounted for 12.8%, while social and psychological bullying each accounted for 4.4%. Sexual bullying was reported by 2.2% of participants.

Analysis of demographic characteristics in relation to bullying level showed no statistically significant associations for age (p=0.431), gender (p=0.958), or grade level (p= 0.669). Similarly, no significant associations were observed between gender (p=0.662) or grade level (p=0.297) and type of bullying. However, age showed a statistically significant association with type of bullying (p=0.038).

No statistically significant association was found between bullying level and prosocial behavior (p=0.670). Likewise, analyses examining the relationship between types of bullying and SDQ subscales, including emotional symptoms, conduct problems, peer relationship problems, hyperactivity, prosocial behavior, and Total Difficulties Score, did not show statistically significant associations (all p>0.05).

Discussion

The present study shows that bullying remains a common experience among high school students in Banda Aceh, particularly in physical and verbal forms. Most participants reported mild levels of bullying, while only a small proportion experienced moderate to severe exposure. Overall, the analysis did not identify significant associations between bullying level and demographic characteristics, including age, gender, and grade level. Similarly, the relationship between bullying exposure and emotional–behavioral problems measured using the SDQ was not statistically significant.

These findings should be interpreted with caution. One important consideration is the limited statistical power of the study. Although the sample included 180 students, only a small number (7.2%) were categorized as experiencing severe bullying. This uneven distribution across exposure groups may have reduced the sensitivity of the analysis to detect meaningful differences. In this context, the absence of statistical significance may reflect methodological constraints rather than a definitive lack of association.

It is also important to consider the overall level of exposure reported in this study. The majority of students experienced bullying at a mild level, which may not have been sufficient to produce measurable differences in emotional and behavioral outcomes. More severe or repeated forms of victimization are more consistently linked to psychological difficulties in the literature. In contrast, milder experiences may have more subtle effects that are difficult to capture using standard screening instruments such as the SDQ, particularly in cross-sectional designs.[10,11]

Although statistical significance was not reached, the descriptive patterns in this study remain noteworthy. Students exposed to moderate to severe bullying tended to show higher proportions of abnormal scores across several SDQ domains, including emotional symptoms, conduct problems, peer relationship difficulties, and hyperactivity. While these differences did not meet conventional thresholds for significance, they suggest a potential gradient in psychosocial risk that warrants further investigation.

The findings of this study differ from a substantial body of previous research reporting significant associations between bullying victimization and adverse mental health outcomes such as depression, anxiety, and behavioral difficulties. Several factors may help explain this discrepancy. Differences in study design, measurement tools, cultural context, and sample composition are likely contributors. Large-scale and longitudinal studies have generally demonstrated stronger and more consistent associations between bullying victimization and adverse psychological outcomes.[12–14]

Another possible explanation relates to unmeasured contextual factors. Previous literature has highlighted the role of protective influences such as family and peer support, supportive school relationships, and coping strategies in shaping or buffering the psychological impact of bullying. These variables were not assessed in the present study, and therefore their potential moderating effects could not be examined. As a result, the observed relationship may represent only part of a more complex psychosocial process.[15,16]

Regardless of statistical significance, the high prevalence of bullying observed in this study remains a concern. Adolescence is a sensitive developmental period, and repeated negative peer experiences may influence students' sense of safety, psychological well-being, and school engagement over time. From a public health perspective, these findings underscore the importance of maintaining preventive efforts within school environments and ensuring early identification and support

for students at risk of psychosocial difficulties.[17]

This study has several limitations. The cross-sectional design does not allow causal inference between bullying and emotional–behavioral outcomes. In addition, the relatively small number of students experiencing severe bullying may have limited statistical power and increased the risk of Type II error. The use of self-report measures may also introduce recall and social desirability bias. Despite these limitations, the study provides useful baseline evidence on bullying patterns among adolescents in Banda Aceh.

In conclusion, bullying remains a common experience among high school students in Banda Aceh, predominantly at a mild level and in physical and verbal forms. Although no statistically significant associations were observed between bullying exposure and emotional–behavioral problems, the descriptive patterns suggest a possible trend that should not be dismissed. Future studies with larger and more balanced samples, as well as inclusion of psychosocial protective factors, are needed to better clarify the relationship between bullying and adolescent mental health in this context.

References

1. Dhamayanti M. Bullying: Fenomena Gunung Es di Dunia Pendidikan. Sari Pediatri. 2021;23(1):67-74. doi:10.14238/sp23.1.2021.67-74
2. Komisi Perlindungan Anak Indonesia. Pemerintah bersama tri pusat pendidikan harus lebih optimal 'turun tangan' atasi bullying/perundungan pada satuan pendidikan. Jakarta: KPAI; 2024
3. Ariani TA, Putri AR, Firdausi FA, Aini N. Global prevalence and psychological impact of bullying among children and adolescents: a meta-analysis. J Affect Disord. 2025;385:119446. doi:10.1016/j.jad.2025.119446
4. Notoatmodjo S. Metodologi Penelitian Kesehatan. Jakarta: Rineka Cipta; 2018.
5. Bujang MA. A step-by-step process on sample size determination for medical research. Malays J Med Sci. 2021;28(2):15–27. doi:10.21315/mjms2021.28.2.2
6. Gaete J, Valenzuela D, Godoy MI, Rojas-Barahona CA, Salmivalli C, Araya R. Validation of the Revised Olweus Bully/Victim Questionnaire (OBVQ-R) among adolescents in Chile. Front Psychol. 2021;12:578661. doi:10.3389/fpsyg.2021.578661
7. Luzanil ST, Turnip SS. The strengths and difficulties questionnaire self-report: sensitivity and specificity testing to identify conduct problems in Indonesian adolescents. J Aggress Confl Peace Res. 2021;13(4):226–37. doi:10.1108/JACPR-01-2021-0569
8. Valentia S, Turnip SS. Screening for emotional problems: diagnostic accuracy of the Strength and Difficulties Questionnaire Indonesian version. Asian J Psychiatr. 2022;76:103139. doi:10.1016/j.ajp.2022.103139
9. Youthinmind. Strengths and Difficulties Questionnaire (SDQ): scoring the SDQ. London: Youthinmind; 2016
10. Afriani A, Denisa D. Bullying victimization among junior high school students in Aceh, Indonesia: prevalence and its differences in gender, grade, and friendship quality. J Ilm Peuradeun. 2021;9(2):251–74. doi:10.26811/peuradeun.v9i2.518
11. Yan R, Xie R, Jiang M, Li J, Lin X, Ding W. Longitudinal relationship between bullying victimization and depression among left-behind children: roles of negative thoughts and self-compassion. Front Psychol. 2022;13:852634. doi:10.3389/fpsyg.2022.852634
12. Ye Z, Wu D, He X, Ma Q, Peng J, Mao G, *et al*. Meta-analysis of the relationship between bullying and depressive symptoms in children and adolescents. BMC Psychiatry. 2023;23:215. doi:10.1186/s12888-023-04681-4
13. Zhao N, Yang S, Zhang Q, Wang J, Xie W, Tan Y, *et al*. School bullying results in poor psychological conditions: evidence from a survey of 95,545 subjects. Front Psychol. 2024;15:1279872. doi:10.3389/fpsyg.2024.1279872
14. Tong Y, Xie F, Wen X, Li Y, Yuan M, Zhang X, *et al*. Longitudinal association between bullying victimization and depressive symptoms in Chinese early adolescents: the effect of life satisfaction. Depress Anxiety. 2024;2024:6671415. doi:10.1155/2024/6671415
15. Martínez M, Damme KS, Vargas T, Yang B,

Rompilla DJ, Stephens J, *et al*. Longitudinal study of peer victimization, social support, and mental health during early adolescence. Psychol Med. 2024;54(9):1940–55. doi:10.1017/S0033291724000035

16. Lai W, Li W, Guo L, Wang W, Xu K, Dou Q, *et al*. Association between bullying victimization, coping style, and mental health problems among Chinese adolescents. J Affect Disord. 2023;324:379–86. doi:10.1016/j.jad.2022.12.080
17. Gregus SJ, Craig JT, Cavell TA. Toward evidence-based interventions for chronically bullied children: candidate mechanisms and potential strategies. Evid Based Pract Child Adolesc Ment Health. 2020;5(1):83–101. doi:10.1080/23794925.2020.1727796