

The Silent Crisis: Exploring the Correlation Between Bullying and Suicidal Tendencies Among Adolescents in Java and Sumatra, Indonesia

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ABSTRACT

Bullying is a critical global public health issue with well-documented impacts on adolescent mental health. In Indonesia, particularly in Java and Sumatra, the high prevalence of bullying presents a significant threat to youth, who are especially vulnerable during their developmental years. This paper explores the relationship between bullying and suicidal behaviors – namely suicidal considerations, planning, and attempts – among adolescents in these regions. A quantitative research design using both bivariate and multivariate statistical techniques, comprising a sample of 7,391 students sourced from the Global School Health Survey 2015, indicates that adolescents who experience bullying are significantly more likely to engage in suicidal tendencies including suicidal considerations, planning, and attempts. The findings emphasise the necessity for targeted interventions to mitigate bullying and promote mental health for adolescents. The paper concludes with recommendations for anti-bullying policies, mental health interventions and further research.

Keywords: Adolescents, Bullying, Mental Health, Suicidal Tendencies

Introduction

Bullying can be defined as repetitive aggressive behaviours directed towards an individual with the intention of causing harm or exerting control (Man, X., Liu, J., & Xue, Z, 2022). These behaviours are often observed in situations where there is a power imbalance between the perpetrator and the victim. Adolescents are particularly susceptible to bullying, with studies indicating that a significant proportion of young people globally experience some form of bullying during their school years (Zhang, J., Duan, X., Yan, Y., Tan, Y., Wu, T., Xie, Y., Yang, B. X., Luo, D., & Liu, L, 2024). The prevalence of bullying among adolescents on a global scale is a matter of grave concern, with studies indicating rates as high as 32% (Gómez Tabares, A. S., Restrepo, J. E., & Zapata-Lesmes, G, 2024). In Indonesia, school-based bullying remains pervasive (Karimah, N., Jayanti, O. S. P., Astari, M., & Nurhasanah, 2024), particularly prevalent in densely populated regions such as Java and Sumatra. Furthermore, the increasing prevalence of social media has contributed to an intensification of the bullying experience, particularly in the form of cyberbullying, which is more challenging to detect and prevent (Rosli, W. R. W., Ya'cob, S. N., Bajury, M. S. M., & Bakar, M. H. A, 2021). A considerable number of students are subjected to bullying on a daily basis at school, which can result in severe psychological distress and an elevated risk of suicide (Nafisah, N. N., Nurhayatun, I., Citrasari, A. D. A., & Nabila, N. M, 2023).

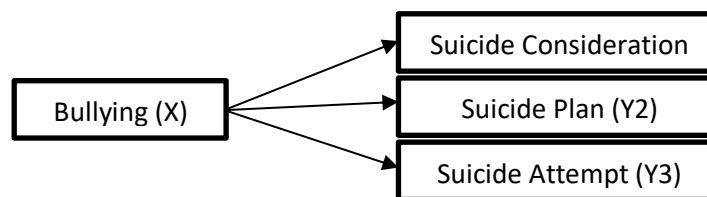
Recent data from Indonesia indicate a concerning prevalence of bullying and its association with suicidal consideration among adolescents (Waliyanti, E., & Swesty, F. A, 2021). For instance, the Indonesian Ministry of Social Affairs reported that 40% of children aged 10–14 had contemplated suicide as a result of bullying (Ubudiyah, M., Nursalam, N., & Sukartini, T, 2021). Suicide represents a significant cause of mortality among young people, with rising rates underscoring the urgency of this public health concern. Suicidal tendencies are frequently associated with a spectrum of mental health concerns, including depression, anxiety, and trauma. These conditions may emerge from prolonged exposure to bullying and other adverse life experiences. In Indonesia, where mental health services are still in their infancy, these issues are frequently unreported, leaving many young victims without the requisite support (Waliyanti, E., & Swesty, F. A, 2021).

In a report published by the Indonesian Central Bureau of Statistics, it was revealed that in the year 2020, there were a total of 5,787 cases of suicide or suicide attempts (Turton, H., Berry, K., Danquah, A., Green, J., & Pratt, D, 2022). This sharp rise has drawn attention to the potential link between bullying and suicidal behaviors in the adolescent population. The Indonesian provinces of Java and Sumatra, which are among the most densely populated in the country, have a high prevalence of adolescents at risk of bullying, which can potentially result in suicidal behaviour (Annisa, N. N., Aprilianto, D. S., Suhandani, M., & Jayanti, M. P, 2022). This research aims to investigate the correlation between experiences of bullying and the prevalence of suicidal considerations, planning, and attempts among adolescents in Sumatra and Java, aiming to determine how being bullied influences these suicidal behaviors. This research is of great importance in understanding the extent to which bullying affects the mental health of adolescents, with the potential for it to result in suicidal behaviours. This is particularly pertinent in the context of Indonesia's large youth population, where bullying and mental health issues may be overlooked or inadequately addressed due to cultural stigma or a lack of resources. The findings strongly recommend the implementation of prompt intervention measures by educational institutions, policymakers, and mental health

practitioners. If the findings of this research are acted upon, it has the potential to save lives and reduce the prevalence of adolescent suicide, thus making a significant contribution to public health and education.

Furthermore, this research offers valuable insights into the significant relationship between bullying and suicidal behaviours among adolescents in Sumatra and Java. The study reveals stark differences between students who have been bullied and those who have not in terms of suicidal consideration, suicide planning, and suicide attempts. These findings provide compelling evidence for the detrimental impact of bullying on mental health. The research offers several key advantages, including: Regional comparisons are also made. By comparing the findings from Sumatra and Java, the research uncovers potential regional disparities in the impact of bullying, which suggests the necessity for region-specific interventions. A comprehensive analysis is provided. The study employs both bivariate and multivariate analysis, controlling for age and gender, in order to ensure a comprehensive examination of the relationship between bullying and suicidal behaviours. The study employs a large sample size (N=7391), which lends robustness to the findings and enhances their generalisability to a wide adolescent population in Indonesia.

Conceptual Framework



The relationship between bullying and suicide among adolescents is well-documented in the literature, as evidenced by numerous studies that highlight the significant mental health risks associated with bullying behaviours. It has been reported that adolescents who are subjected to bullying are 2.7 times more likely to attempt suicide than their peers who do not experience such harassment (Aprilia, S. D., Prasetya, H., & Murti, B,2023). This statistic serves to illustrate the significant impact that bullying can have on vulnerable youth, which can result in amplified psychological distress and a diminished capacity to cope with emotional challenges (Annisa, N. N., Aprilianto, D. S., Suhandani, M., & Jayanti, M. P.2022).

Cyberbullying has emerged as a particularly insidious form of harassment, acting as a significant predictor of depression and suicidal consideration. For instance, a study conducted on Indian adolescents found a notable increase in the risk of suicidal thoughts linked to experiences of cyberbullying (Maurya, C., Muhammad, T., Dhillon, P., & Maurya, P.2022). Similarly, findings from research focused on Filipino adolescents indicate that both traditional bullying and cyberbullying significantly contribute to suicidal behaviours, thereby reinforcing the idea that these forms of victimisation are serious mental health concerns (Chiu, H., & Vargo, E. J.2022). In Indonesia, the pervasive nature of school-based bullying serves to further complicate this issue, as a significant proportion of students continue to experience both physical and emotional harassment in educational settings (Karimah, N., Jayanti, O. S. P., Astari, M., & Nurhasanah.2024).The psychological impact of bullying extends beyond immediate distress. Studies have highlighted that the experience of bullying often results in the development of severe mental health issues, including self-harm and an increased risk of suicidal behaviour. The extant literature indicates that adolescents who are victims of bullying are at an elevated risk for these adverse outcomes. This evidence suggests that effective and comprehensive school-based interventions could play a pivotal role in mitigating these risks and ultimately lowering adolescent suicide rates. The long-term effects of bullying can be particularly damaging, influencing an individual's self-esteem and increasing social anxiety. These effects can persist into adulthood (1 Pabian, S., Dehue, F., Völlink, T., & Vandebosch, H.2021).

Furthermore, the increase in cyberbullying incidents during the ongoing pandemic has intensified the risks of suicidal consideration among adolescents. The transition to digital communication during lockdowns has created new avenues for harassment, underscoring the urgent need for interventions that address both offline and online bullying in order to safeguard adolescent mental health (Rosli, W. R. W., Ya'cob, S. N., Bajury, M. S. M., & Bakar, M. H. A.2021). This heightened vulnerability highlights the necessity for prompt mental health interventions, as adolescents who have previously engaged with mental health services often demonstrate elevated suicide risk following a suicide attempt (Fernando, T., Clapperton, A., Spittal, M., & Berecki-Gisolf, J.2022).

A number of broader socio-economic factors have also been identified as significant contributors to suicidal thoughts among adolescents. The findings of several studies indicate that adolescents experiencing food insecurity are markedly more likely to attempt suicide, suggesting that unmet basic needs can exacerbate feelings of hopelessness and despair (Stear, T., Lewis, G., Evans-Lacko, S., Pitman, A., Rose-Clarke, K., & Patalay, P.2024). It is therefore imperative that these socio-economic challenges are addressed if effective suicide prevention strategies are to be developed. In line with this, the implementation of task-shifting mental health interventions within community settings represents a promising approach to reducing suicide risks, particularly for marginalised adolescents who may encounter barriers in accessing traditional mental health care services (Vélez-Grau, C., & Alvarez, K.2024).In conclusion, the correlation between bullying and suicide among adolescents is

complex and multifaceted, with bullying representing a primary driver of suicidal thoughts and behaviours. Factors such as cyberbullying, peer pressure, depression, and socio-economic stressors like food insecurity serve to compound these risks. It is therefore essential that comprehensive prevention strategies are implemented within schools and communities that address the diverse social, emotional, and environmental factors contributing to adolescent suicide. By targeting these issues, interventions can significantly reduce the prevalence of bullying-related suicides and enhance the overall well-being of adolescents.

Methods Research

This study employs a quantitative research design to examine the relationship between bullying and suicidal behaviours (including considerations, planning, and attempts) among adolescents in Java and Sumatra, Indonesia. The quantitative approach enables a systematic investigation of the prevalence of bullying and its impact on mental health outcomes, thereby providing statistically significant insights into the correlation between these variables. The population under investigation in this study comprises adolescents from two of Indonesia's largest islands, Java and Sumatra. The total sample size was 7,391 students. A total of 3,631 participants were from Sumatra and 3,760 from Java. The participants were selected from a variety of schools situated in urban and rural areas across both regions, thereby ensuring a diverse representation of adolescents in terms of socio-economic status and cultural backgrounds. The sample was obtained through a multi-stage random sampling technique. First, schools were randomly selected, and then students within each school were randomly selected. This method ensures that the sample is both representative and unbiased. Students aged between 11 and 18 years participated in the study, with the highest representation coming from students aged 13 to 15 years, who are in grades 7 to 9. The data were sourced from the Global School Health Survey (2015).

The data set was analysed using the statistical software package SPSS (Statistical Package for the Social Sciences) version 22, which is widely used for statistical analysis in social science research. The analysis employed both bivariate and multivariate statistical techniques to investigate the relationships between the independent variable (bullying) and the dependent variables (suicide consideration, suicide planning, and suicide attempts). The following descriptive statistics were calculated: Descriptive statistics were employed to ascertain the characteristics of the sample, including gender distribution, age, and grade level, and these were expressed as frequencies and percentages. This yielded an overall profile of the study population. Bivariate analysis was conducted using the chi-square test. The chi-square test was employed to investigate the relationship between bullying and suicidal behaviours, comparing the proportion of students who had experienced suicidal thoughts, plans and attempts between those who had been bullied and those who had not, in both Java and Sumatra. This method is employed to ascertain the statistical significance of associations between categorical variables, such as the relationship between being bullied and not being bullied, and suicidal thoughts and no suicidal thoughts. Multivariate analysis (binary logistic regression): To control for potential confounding variables such as age and gender, a binary logistic regression analysis was conducted. This enabled the researchers to ascertain the adjusted odds ratio (AOR) for suicidal behaviours among students who had been bullied in comparison to those who had not been bullied, while accounting for the influence of age and gender. P-value and Confidence Intervals: A p-value of less than 0.01 was considered to be statistically significant. Confidence intervals (95% CI) were calculated in order to demonstrate the precision of the odds ratios.

Result and Discussion

1. Sample Characteristics

The sample includes a nearly balanced distribution of male and female participants, with 45.4% males and 54.6% females in Sumatra, and 47.1% males and 52.9% females in Java. In terms of age, the highest proportion of students in both regions falls between 13 and 15 years old. In Sumatra, 21.6% of students are 13 years old, while in Java, 24.3% are 13 years old. The p-value (<0.001) for age distribution indicates significant differences in the age groups between the two regions. The data also shows that students in the earlier grades (grades 7 to 9) represent the majority of the sample in both regions, with a significant difference between grade distributions (p-value < 0.001). Regarding bullying, 16.5% of students in Sumatra and 19.5% in Java report being bullied, with a p-value of 0.001, indicating a statistically significant higher bullying prevalence in Java compared to Sumatra. For suicidal consideration, 4.9% of students in Sumatra and 4.7% in Java reported considering suicide, with no significant difference (p-value = 0.683). Similarly, for suicide planning (Sumatra: 5.5%, Java: 4.9%) and suicide attempts (Sumatra: 3.7%, Java: 3.5%), no significant differences were found between the two regions (p-values of 0.293 and 0.633, respectively). The sample characteristic of this study is shown on the table below:

Table 1. Sample Characteristics (N=7391)

Variables	Sumatra (n=3631)	Jawa (n=3760)	p-value
	n (%)	n (%)	

Sex			
Male	1641 (45,4%)	1766 (47,1%)	0,16
Female	1971 (54,6%)	1987 (52,9%)	
Age			
11 years old or younger	56 (1,5%)	68 (1,8%)	< 0,001
12 years old	542 (15%)	662 (17,6%)	
13 years old	780 (21,6%)	912 (24,3%)	
14 years old	779 (21,5%)	982 (26,1%)	
15 years old	739 (20,4%)	585 (15,6%)	
16 years old	401 (11,1%)	301 (8%)	
17 years old	278 (7,7%)	229 (6,1%)	
18 years old or older	44 (1,2%)	20 (0,5%)	
Grade			
Grade 7	891 (24,7%)	952 (25,5%)	< 0,001
Grade 8	821 (22,8%)	922 (24,7%)	
Grade 9	749 (20,8%)	973 (26%)	
Grade 10	468 (13%)	351 (9,4%)	
Grade 11	382 (10,6%)	293 (7,8%)	
Grade 12	294 (8,2%)	249 (6,7%)	
Being Bullied			
Yes	554 (16,5%)	692 (19,5%)	0,001
No	2802 (83,5%)	2856 (80,5%)	
Considered Suicide			
Yes	174 (4,9%)	174 (4,7%)	0,683
No	3382 (95,1%)	3537 (95,3%)	
Made Suicide Plan			
Yes	195 (5,5%)	183 (4,9%)	0,293
No	3370 (94,5%)	3534 (95,1%)	
Attempted Suicide			
Yes	134 (3,7%)	132 (3,5%)	0,633
No	3467 (96,3%)	3625 (96,5%)	

2. Bivariate Analysis

The bivariate analysis, which uses the chi-square test, demonstrates a significant relationship between bullying and suicidal behaviors in both regions. Specifically: In Sumatra, 12.3% of students who were bullied considered suicide, compared to 3% of those who were not bullied. Similarly, in Java, 10.7% of bullied students considered suicide, compared to 3.2% of non-bullied students. The p-value for both regions is <0.001, indicating a significant association between being bullied and considering suicide.

Table 2. Bivariate Analysis Between Bullied and Suicide Consideration among Students (N=7409)

Variables	Sumatra			Jawa		
	Suicide Consideration			Suicide Consideration		
Bullied	Yes	No	p-value	Yes	No	p-value
Yes	65 (12,3%)	462 (87,7%)	< 0,001	72 (10,7%)	600 (89,3%)	< 0,001
No	84 (3%)	2691 (96%)		92 (3,2%)	3343 (95,6%)	

In Sumatra, 9.7% of bullied students made a suicide plan, compared to 4.3% of non-bullied students. In Java, 9% of bullied students made a suicide plan, compared to 3.7% of non-bullied students. The p-value for both regions is <0.001, showing a significant association between bullying and suicide planning.

Table 3. Bivariate Analysis Between Bullied and Suicide Plan among Students (N=6821)

Variables	Sumatra			Jawa		
	Made Suicide Plan			Made Suicide Plan		
Bullied	Yes	No	p-value	Yes	No	p-value
Yes	51 (9,7%)	475 (90,3%)	< 0,001	60 (9%)	608 (91%)	< 0,001
No	119 (4,3%)	2666 (95,7%)		106 (3,7%)	2736 (96,3%)	

In Sumatra, 8.7% of bullied students attempted suicide, compared to 2.3% of non-bullied students. In Java, 8.8% of bullied students attempted suicide, compared to 2% of non-bullied students. The p-value for both regions is <0.001, indicating a strong relationship between being bullied and suicide attempts.

Table 4. Bivariate Analysis Between Bullied and Suicide Attempt among Students (N=6888)

Variables	Sumatra			Jawa		
	Attempted Suicide			Attempted Suicide		
Bullied	Yes	No	p-value	Yes	No	p-value

Yes	48 (8,7%)	504 (91,3%)	< 0,001	61 (8,8%)	630 (91,2%)	< 0,001
No	64 (2,3%)	2725 (97,7%)		58 (2%)	2798 (98%)	

These results clearly show that students who experience bullying are significantly more likely to engage in suicidal behaviors than those who are not bullied.

3. Multivariate Analysis

The multivariate analysis uses binary logistic regression to control for age and gender, providing adjusted odds ratios (AOR) to assess the likelihood of suicidal behaviors among bullied students compared to non-bullied students. In Sumatra, the AOR for bullied students considering suicide is 4.748 (95% CI: 3.343 – 6.744), indicating that bullied students are nearly 5 times more likely to consider suicide compared to their non-bullied peers. In Java, the AOR is 3.851 (95% CI: 2.781 – 5.333), suggesting that bullied students are approximately 3.8 times more likely to consider suicide. Both results are highly significant (p-value < 0.01).

Table 5. The Association between Being Bullied and Suicide Consideration

	Sumatra		Jawa	
	Considered Suicide		Considered Suicide	
Be Bullied	B (SE)	AOR ^a (95% CI)	B (SE)	AOR ^a (95% CI)
Yes (ref: no)	1,558 (0,179)	4,748** (3,343 – 6,744)	1,348 (0,166)	3,851** (2,781-5,333)

^aVariable was adjusted for age and gender

** p value < 0,01

Bullied students in Sumatra have an AOR of 2.368 (95% CI: 1.671 – 3.356), meaning they are more than twice as likely to make a suicide plan compared to non-bullied students. In Java, the AOR is 2.533 (95% CI: 1.821 – 3.523), indicating a similar likelihood of suicide planning among bullied students. Both AORs are statistically significant (p-value < 0.01).

Table 6. The Association between Being Bullied and Suicide Consideration

	Sumatra		Jawa	
	Made Suicide Plan		Made Suicide Plan	
Be Bullied	B (SE)	AOR ^a (95% CI)	B (SE)	AOR ^a (95% CI)
Yes (ref: no)	0,862 (0,178)	2,368** (1,671 – 3,356)	0,929 (0,168)	2,533** (1,821 – 3,523)

^aVariable was adjusted for age and gender

** p value < 0,01

The AOR for suicide attempts among bullied students in Sumatra is 3.676 (95% CI: 2.471 – 5.469), showing they are nearly 3.7 times more likely to attempt suicide compared to non-bullied students. In Java, the AOR is 4.523 (95% CI: 3.118 – 6.561), indicating that bullied students are over 4.5 times more likely to attempt suicide. Both results are significant (p-value < 0.01).

Table 7. The Association between Being Bullied and Suicide Consideration

	Sumatra		Jawa	
	Made Suicide Plan		Made Suicide Plan	
Be Bullied	B (SE)	AOR ^a (95% CI)	B (SE)	AOR ^a (95% CI)
Yes (ref: no)	1,302 (0,203)	3,676** (2,471 – 5,469)	1,509 (0,190)	4,523** (3,118 – 6,561)

^aVariable was adjusted for age and gender

** p value < 0,01

The multivariate analysis confirms that bullying is a significant risk factor for suicidal behaviors, even after controlling for age and gender. Bullied students are consistently more likely to consider suicide, plan suicide, and attempt suicide compared to their non-bullied peers, with the risk being slightly higher in Sumatra than in Java. The results of this study offer substantial support for all three hypotheses concerning the relationship between bullying and suicidal behaviours among adolescents in both Sumatra and Java. Hypothesis 1 (H1) proposed a significant correlation between being bullied and contemplating suicide. The results substantiate this assertion, demonstrating that students who have been subjected to bullying are markedly more prone to contemplating suicide than their counterparts who have not experienced such mistreatment. The multivariate analysis yielded an adjusted odds ratio (AOR) of 4.748 in Sumatra and 3.851 in Java, both of which were found to be statistically significant. Hypothesis 2 (H2) proposed a positive association between bullying and suicide planning. The data also support this hypothesis, indicating that bullied students in Sumatra are 2.368 times more likely to create a suicide plan and those in Java are 2.533 times more likely, after controlling for age and gender. Lastly, hypothesis 3 (H3) proposed a significant correlation between bullying and suicide attempts, which the study strongly validates. The likelihood of suicide attempts among bullied students in Sumatra was found to be nearly 3.7 times higher than that of their non-bullied peers, while in Java, this likelihood increased to over 4.5 times, both of which were statistically significant.

The prevalence of bullying among adolescent populations is substantiated by the findings of this study, which revealed that 16.5% of students in Sumatra and 19.5% in Java had experienced bullying. These figures are consistent with those reported in similar regions, such as the Philippines, where 19.9% of adolescents reported being victims of bullying. This reflects a broader pattern in low- and middle-income countries with an average peer victimisation rate of 34.2% across 19 countries, particularly in Southeast Asia (Ahmed, G. K., Metwaly, N. A.,

Elbeh, K., Galal, M. S., & Shaaban, I. (2022). Although the prevalence of bullying in the study is slightly lower, it is consistent with global trends, confirming that bullying is a pervasive issue among adolescents in these regions. The elevated prevalence of suicidal consideration among students who have been bullied, with rates of 12.3% in Sumatra and 10.7% in Java, in comparison to significantly lower rates among non-bullied students, highlights the significant mental health risks associated with bullying. This observation is consistent with the findings reported that victims of cyberbullying were 2.50 times more likely to experience suicidal consideration (Maurya, C., Muhammad, T., Dhillon, P., & Maurya, P. 2022). Similarly, there is association between bullying, depressive symptoms, self-harm and suicidal thoughts in Norwegian adolescents, thereby underscoring the vulnerability of those who are victims of bullying to suicidal behaviours (J Stea, T. H., Bonsaksen, T., Smith, P., Kleppang, A. L., Steigen, A. M., Leonhardt, M., Lien, L., & Vettore, M. V. 2024). These findings serve to reinforce the critical mental health consequences of bullying as observed in the study.

Moreover, the findings on suicide attempts among bullied students (8.7% in Sumatra and 8.8% in Java) provide compelling evidence to support the hypothesis that bullying significantly increases the risk of suicide attempts. The meta-analysis lends further support to this hypothesis, reporting a 2.70 times higher risk of suicide among adolescents who have been bullied (Aprilia, S. D., Prasetya, H., & Murti, B. 2023). Furthermore, long-term studies have demonstrated that bullying can have enduring effects on mental health, with the risk of suicide attempts persisting even years after the bullying incidents (Nystrom, M., Hallgren, M., & Andersson, T. 2021). The multivariate analysis conducted in this study further emphasises the correlation between bullying and suicidal behaviours, with an adjusted odds ratio (AOR) of 4.748 in Sumatra and 3.851 in Java for suicidal consideration. These findings are consistent with a study demonstrated that increased utilisation of mental health services correlates with elevated suicide risk (Fernando, T., Clapperton, A., Spittal, M., & Berecki-Gisolf, J. 2022). Similarly, another study also demonstrated that being bullied significantly increases the likelihood of developing mental health problems such as depression and suicidal tendencies, particularly among males (Källmén, H., & Hallgren, M. 2021). The prevalence of bullying, its detrimental effects on mental health, and the increased risk of suicidal consideration, planning, and attempts are consistent across multiple studies. A noteworthy conclusion from another study emphasize the long-term psychological consequences of bullying, including the development of psychiatric disorders, highlight the urgent necessity for the implementation of early intervention strategies (Ahmed, G. K., Metwaly, N. A., Elbeh, K., Galal, M. S., & Shaaban, I. 2022). This study provides further evidence to support the global understanding of the significant and enduring impact of bullying on adolescent mental health.

Conclusion

The findings of this study serve to reinforce the significant relationship between bullying and suicidal behaviours among adolescents in Sumatra and Java. The evidence indicates that bullying increases the risk of suicidal consideration, planning, and attempts. This is demonstrated by the observation that suicidal consideration and suicide attempts are more prevalent among students who are bullied compared to their non-bullied peers. The results substantiate all three hypotheses, aligning with findings from international studies and underscoring the mental health risks associated with bullying. The multivariate analysis corroborates the hypothesis that bullied students are significantly more likely to engage in suicidal behaviours, even when controlling for age and gender. Furthermore, the risk is slightly higher in Sumatra than in Java. Therefore, it is imperative that early intervention be implemented to address the long-term psychological consequences of bullying. However, it should be noted that this study is limited by its cross-sectional design, which restricts the ability to infer causal relationships. Furthermore, it is possible that self-reported data may lead to underreporting or overreporting of bullying and suicidal behaviours. Additionally, the study focuses on two regions, which may limit the generalisability of the findings to other areas.

Suggestion And Recommendation

The findings have significant implications for a range of fields, including educational policy, mental health intervention, and public health campaigns. The research findings can inform schools and educational policymakers in Sumatra and Java to prioritise the implementation of anti-bullying programmes and the provision of mental health support services for adolescents. Mental Health Interventions: Mental health professionals must design targeted interventions for adolescents who have been bullied, with a focus on reducing suicidal consideration and preventing suicide attempts. Furthermore, public health authorities are advised to raise awareness about the severe consequences of bullying and implement broader social campaigns that promote mental health and well-being among adolescents. For further research, this study provides a robust foundation in different regions or countries and encourages further investigation into other potential factors that exacerbate the bullying-suicide relationship.

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