

The Relationship Between School Bullying and Internalization of Adolescents

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Abstract: According to the results of this study, the authors found that there is a close relationship between school bullying and adolescent internalization disorder. For teenagers, the experience of facing school bullying is likely to lead to psychological maladjustment, which leads to the formation of internalization barriers. These internalizing disorders include anxiety, depression and other problems. The participants were adolescents, and the data were collected by questionnaire, and the results were analyzed by appropriate data analysis methods. The study found that there was a certain relationship between school bullying and adolescent internalization, it is of great importance to improve the school environment and strengthen the relationship between peers. These findings provide an important reference for schools and social managers to curb the incidence of school bullying and protect the mental health of adolescents. Future research could further explore the impact of more comprehensive social factors on internalizing disorders in adolescents, as well as the development and implementation of more effective interventions. In conclusion, this study has important influence for understanding the relationship between school bullying and internalization problems in adolescents. It also provides useful enlightenment for the follow-up research in related fields.

Keywords: Bullying, Adolescent internalizing problems, Psychological issues, School, Social factors

1. Introduction

1.1. Background

Over the past few decades, school bullying has been a major social issue. School bullying refers to physical, verbal or non-verbal bullying and insults committed by one party to the other party, intentionally or maliciously, in and outside the school (including primary and secondary schools and secondary vocational schools). This behavior may occur once or more, resulting in physical injury, loss of property or mental damage to the victim [1]. School bullying not only causes physical and mental harm to the victims, but also brings many negative effects to the school and society. In the past research, many scholars and researchers have conducted in-depth research on the explicit behavior of school bullying and its impact. However, there is still some controversy about the connection between school bullying and teenagers' internalization. Accordingly, this study aims to

further study the connection between school bullying and adolescent internalization, in order to provide scientific basis and solutions to solve this social problem.

The aim of this study was to seek the connection between school bullying and adolescents' internalized problems, and to analyze the consequence of school bullying on adolescents' mental health. Systematic research on the correlation between bullying behavior and internalization disorder in adolescents can help us better understand the negative impact of bullying behavior on adolescent mental health, and provide scientific basis for preventing and intervening school bullying behavior. The significance of this study is that it can provide effective intervention measures and policy recommendations for school and social administrators against school bullying, protect the mental health of adolescents and establish a good school environment and interpersonal relationship. In addition, this study can also provide useful enlightenment for the follow-up research in related fields, and provide scientific basis for educational institutions and society to reduce the incidence of school bullying and promote the harmonious development of society.

1.2. Literature Review

Since the 1980s, bullying of children and adolescents in school has been a hot topic for psychologists, educators and government departments [2]. Hawker and Boulton conducted a meta-analysis study on the phenomenon of bullying, which revealed the connection between school bullying and a variety of internalized problems, among which depression was most closely related to school bullying [3]. In addition, some longitudinal studies have shown that there is an interaction between school bullying and depression, and depression is both a risk factor and a result of bullying. Adolescents who have been bullied have significantly higher performance in internalizing problems than the general population [4,5]. Sweeting et al. found that there is an interaction between bullied adolescents and depressed mood. Although the relationship between the two phenomena is correlated, the transmission effect from bullying experience to depressed mood is more significant [6]. Liu, X.Q. conducted a one-year and a half follow-up survey on 773 junior high school students in Shaoyang City, Hunan Province, and the research results showed that there was a mutual influence between bullying and depression [7]. There are differences in anxiety and depression among students studying in secondary schools with different characters in school bullying, and bullies-victims are the high risk groups for detecting anxiety and depression [8], and bullied teenagers have a high incidence of bad psychological condition [9]. At the same time, other studies have found that the experience of bullying may lead to a negative self-evaluation of the victim. The loss of the support of friends and pleasant friendships, which can lead to distress and anxiety about the future [10]. Zhang, Y.X.Z. et al. found that victimized students may have feelings of insecurity, humiliation, frustration, extreme anxiety and depression, thus forming negative personality traits, such as introversion, isolation and inferiority, and thus becoming more vulnerable [11].

2. Research Methods

2.1. Samples

The sample included 110 secondary school students from different schools in different areas. Through data collection through questionnaire survey, this study can better understand the relationship between school bullying and adolescent internalization, and provide scientific basis for prevention and interposition of school bullying behavior.

2.2. Research Tool

This study adopts quantitative research method and collects a large amount of data through questionnaire survey. First, we conducted a school bullying survey in middle schools in different areas and conducted detailed psychological tests for both victims and bullies. Secondly, we use statistical methods to analyze the collected data, including correlation analysis and regression analysis. Finally, based on the research results, we propose some interventions and recommendations for bullying in schools.

2.2.1. Delaware Bullying Victimization Scale (Student Volume)

Delaware Bullying Victimization Scale (Student Volume) 2016 Edition (DBVS-S) Chinese revised edition, its internal consistency coefficient was 0.91 [12]. The scale contains 4 dimensions, namely verbal bullying, physical bullying, relationship bullying and network bullying. The scale was scored by Likert's six-point scale (from "never" to "every day"). The higher scores indicate more bullying. Cronbach's α coefficient of school bullying questionnaire was 0.933.

2.2.2. Self-rating Anxiety Scale (SAS)

The Self-Rating Anxiety Scale (SAS), devised by Zung in 1971, is a commonly used scale for self-assessment of signs of anxiety. The scale include 20 items, each consisting of four degree statements, "almost never," "sometimes," "often," and "almost always," with a score range of 20-80. A score of 20-44 portends mild anxiety, a score of 45-59 portends moderate anxiety, and a score of 60 or above portends severe anxiety. Cronbach's α coefficient of SAS scale was 0.928 [13].

2.2.3. Self-rating Depression Scale (SDS)

The Depression Self-rating Scale is a instrument for measuring depression. It was created by professor William W.K. Zung in 1965-1966. There are 20 items in total, and each item is divided into seven grades. It involves two pieces for psycho-affective symptoms, eight pieces for somatic disorders, two pieces for psychomotor disorders and eight pieces for depressive psychological disorders. Forward score questions are calculated according to 1, 2, 3, 4 points; The reverse scoring questions are calculated according to 4, 3, 2, 1 points and their numbers are 2, 5, 6, 11, 12, 14, 16, 17, 18, 20. Add the scores for the 20 questions to get the total score. The upper limit of normal reference for the total 41 points, integral part of the standard point is equal to the total point multiplied by 1.25. The normal upper limit reference is 53 points. A standard score of 53-62 portends mild depression, 63-72 portends moderate depression and 72 or more portends major depression. The Cronbach's α coefficient of SDS scale was 0.911 [13].

2.3. Analysis

All questionnaires were conducted in the form of anonymous self-report, with class as a unit. The main examiners were middle school students from different schools who had undergone rigorous training before taking the test. The sample data collection was completed in early December 2023 and SPSS27.0 software was used for data processing and analysis. We used statistical methods to analyze the collected data, including correlation analysis and regression analysis. The study averaged scores for anxiety and depression as a score for internalized problems.

3. The Connection Between School Bullying and Internalization of Adolescents

According to the connection between school bullying and teenagers' internalization, this study can divide this relationship into three aspects: school bullying and anxiety, school bullying and depression and the effect of mediation of school bullying and internalization. These results are important for understanding the consequence of bullying on adolescent mental health and for prevention and intervention.

3.1. Correlation Analysis

According to Pearson correlation analysis of school bullying, anxiety and depression, there was a positive correlation between school bullying and depression, school bullying is positively correlated with anxiety and depression is positively correlated with anxiety. Meanwhile, there is a significant correlation among various variables, which indicates that the relationship between various variables in this study is closely correlated (see Table 1).

Table 1: Correlation analysis between school bullying and anxiety and depression.

| | M±SD | School bullying | Depression | Anxiety |
|-----------------|-------------|-----------------|------------|---------|
| School bullying | 0.427±0.677 | 1 | | |
| Depression | 2.183±0.395 | | 1 | |
| Anxiety | 1.956±0.411 | | | 1 |

Note: **. At level 0.01 (two-tailed), the correlation was significant.

3.2. The Mediating Effect of School Bullying and Internalization

3.2.1. Testing The Mediating Effect of Anxiety

This study use model 4 of the SPSS macro program PROCESS to test the mediating effects of depression and anxiety. The results showed that bullying significantly positively calculated anxiety ($\beta=0.2162$, $P<0.001$), anxiety significantly positively calculated depression ($\beta=0.6175$, $P<0.001$), but bullying could not directly calculate depression ($\beta=0.0530$, $P>0.05$). Therefore, anxiety is the mediating variable between bullying and depression, and anxiety plays a completely intermediary role between bullying and depression, with a mediating effect value of 0.1335 and a total effect value of 0.1865, accounting for 71.582% of the mediating effect. The bootstrap95%CI was (0.0718, 0.2812), and 0 was not included in the interval. Therefore, it is considered that the influence of mediation effect is statistically significant (see Figure 1).

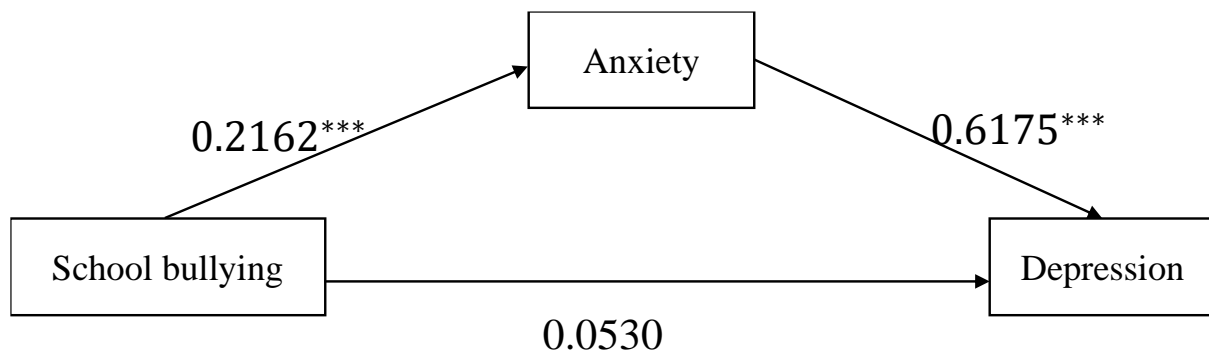


Figure 1: Testing the mediating effect of anxiety.

3.2.2. Testing The Mediating Effect of Depression

The results showed that bullying significantly positively calculated depression ($\beta=0.1865$, $P<0.001$), depression significantly positively calculated anxiety ($\beta=0.6491$, $P<0.001$), and bullying significantly positively calculated anxiety ($\beta=0.0952$, $P<0.05$). Therefore, depression was the mediating variable between bullying and anxiety. Depression played a partial intermediary role between bullying and anxiety, with a mediating effect value of 0.1210 and a total effect value of 0.2162, accounting for 55.98% of the mediating effect, and its bootstrap95%CI was (0.0703, 0.2292), excluding 0 in the interval. Therefore, it is considered that the influence of mediation effect is statistically significant (see Figure 2).

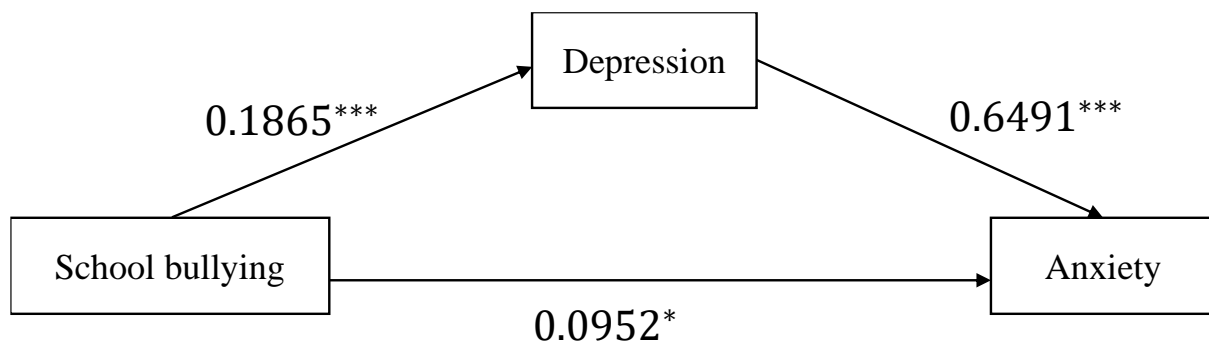


Figure 2: Testing the mediating effect of depression.

4. Discussion

4.1. Research Result

4.1.1. The Mediating Effect of Anxiety

This study found that anxiety played a completely intermediary role between bullying and depression. That is, the higher the extent of bullying, the higher the extent of anxiety, and the higher the extent of depression.

This study hypothesizes that when victims are bullied, they may feel afraid, nervous and upset, and victims of school bullying may face great psychological stress, which may cause them to have anxiety. In a state of chronic high stress, the victim may gradually fall into depression. At the same time, in a bullying environment, victims need to deal with negative emotions, but they may lack the ability to regulate their emotions effectively. This can lead to mood swings, further aggravating anxiety and depression.

4.1.2. The Mediating Effect of Depression

At the same time, this study also found that the partial intermediary effect between bullying and anxiety depression, namely the bullying can not only directly affect the anxiety, can also be indirect effects through depression anxiety. The higher the extent of bullying, the higher the extent of depression, anxiety is higher.

This study hypothesizes that bullying has a serious psychological impact on victims, with depression being a common psychological response. When victims experience bullying, they may feel helpless, depressed and hopeless, and this depressed mood may further lead to anxiety. Depressed feelings may cause the victim to lose control of their emotions and develop anxiety, and the victim may become more anxious because of the fear of losing control of their emotions. In addition, school

bullying affects the quality of life of victims and may lead to increased depression. Life stress and bad emotions can further trigger anxiety.

In conclusion, the study's results confirm the close connection between school bullying and internalization disorders in adolescents, which provides important references for school and social administrators to formulate appropriate policies and measures to curb the incident of school bullying and protect the mental health of adolescents.

4.2. Research Limitation

Although this study made some important findings, we must admit that there are some limitations. First, the sample used in this study was adolescents from a specific region, so there may be some limitations to the applicability of the results. Future studies could expand the sample to include adolescents from different regions, different cultural backgrounds and different education systems to improve the breadth and representativeness of the study.

This study mainly relies on questionnaires to obtain data, which has certain limitations in the disclosure of sensitive information and subjective assessment. Future studies could employ a variety of data collection methods, such as case studies, observations, and relatives' reports, to obtain more comprehensive and objective data.

In addition, this study only researched the relationship between school bullying and internalization disorders in adolescents, but did not delve into the causes and other possible consequences of school bullying. Future research could further explore the complex drivers of bullying and examine other effects of bullying on adolescents, such as externalization problems and academic performance.

The study design used in this study was cross-sectional and no causal relationship could be inferred. Future research could use longitudinal study designs to track adolescents' experiences of bullying and the development of internalized disorders to more accurately understand the relationship and patterns of change between the two.

4.3. Discussion of Partial Mediation and Complete Mediation

Regarding depression as a partial mediator between bullying and anxiety, and anxiety as a complete mediator between bullying and depression, this study makes the following assumptions:

The first Hypothesis is that because school bullying makes the bullied more panic, resulting in anxiety will be more obvious, so school bullying can directly affect anxiety, but can not directly affect depression, school bullying can only indirectly affect depression through anxiety.

Second, the small number of samples and the insufficient breadth of the study lead to the limitations of the experimental results.

5. Conclusion

5.1. Research Problem

This study explored the impact of bullying on internalization issues, examining whether bullying indirectly affects anxiety through depression, and whether bullying indirectly affects depression through anxiety.

5.2. Main Conclusions of The Study

The findings of this study show that school bullying is positively correlated with anxiety, school bullying is positively correlated with depression, depression partially mediated the relationship between bullying and anxiety, while anxiety fully mediated the relationship between bullying and depression.

5.3. Suggestions for Future Research and Practice in This Study

Based on the findings of this study, future research and practice can further explore the influence of more comprehensive social factors on adolescent internalization disorders, as well as develop and implement more effective interventions. Researchers can further explore the influence of family factors, gender differences and educational environment on the internalization of school bullying and adolescents. Meanwhile, researchers can also consider cross-cultural and diverse perspectives to better understand the problem of school bullying and adolescent internalization in different contexts. In addition, we can further explore the influence of different types of school bullying behaviors on adolescents' internalization disorders, study the effectiveness of school bullying intervention measures and prevention strategies, and explore the intervention measures and treatment methods of adolescents' internalization disorders.

This study is of great significance for understanding the relationship between school bullying and adolescent internalization disorders and provides useful implications for follow-up research in related fields. In the future, in-depth research can be carried out in the selection of samples, the richness of research methods and the expansion of research topics, so as to further improve the quality and breadth of research.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

References

- [1] Wang, X.(2019). *Research on Prevention and Treatment of Bullying in Primary and Secondary Schools (Master's Thesis, Nanjing Normal University)*. https://kns.cnki.net/kcms2/article/abstract?v=ACks_bcdpKl9S1EU-wnMZRKxkMo1aZm7OKbjll6c4e2VSwYg2upFRG0MatVgOtSquf4YqK5XXm1_--upjUSRRHU7knnFUL7vZJqIgZCn4A2zJGODELpaYS22t8xwHhfjptuVcuhrbW0=&uniplatform=NZKPT&language=CHS
- [2] Zhang, W.X.(2002). *The prevalence and basic characteristics of bullying/being bullied in primary and secondary school students*. *Journal of Psychology* (04),387-394.
- [3] Hawker, D.S.J.,&Boulton, M.J.(2000).Twenty years' research on peer victimization and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *Journal of Child Psychology&Psychiatry*,41(4) ,441-455.
- [4] Guo, H.Y., Chen, L.H., Ye, Z., Pan, J.& Lin, D.H.(2017). *Characteristics of peer victimization in migrant children and its cyclic relationship with internalization problems: a follow-up study*. *Journal of Psychology* (03),336-348.
- [5] Mei, L.(2019). *The Interaction of bullying victimization with self-esteem and depression among middle and high school students: a follow-up study (Master's Thesis, Hunan Normal University)*. https://kns.cnki.net/kcms2/article/abstract?v=ACks_bcdpKntj8jAiYtTheOb1d7N7vW6cXC1q4yDMUFgonzOyWfsr u6wd4UnkW7k61nRtwp1l85lH0Wxz5X60D4ierNNa54DoFHO2QyhhaKYukDvJVh9bti_5a9Lo7FroIHmMvTseCU=&uniplatform=NZKPT&language=CHS
- [6] Sweeting Helen, Young Robert, West Patrick & Der Geoff. (2006). *Peer victimization and depression in early-mid adolescence: a longitudinal study*. *The British journal of educational psychology* (Pt 3), 577-94.
- [7] Liu, X.Q.(2015). *Bullying behavior in junior high school students and its relationship with depression, anxiety, and social support (PhD thesis, Central South University)*. https://kns.cnki.net/kcms2/article/abstract?v=ACks_bcdpKIV484VWhAHZz6DYq2VpwIjkNJZQOc1zU4Ijs992OPe-e-tWfX-gDBOd0E9bFHNtltIT5xGGNkwoKnSq3hOAU6PQn9r7hxRNRlrrtCn6zeJ93o075T42zEMeu4vSJkJKEA=&uniplatform=NZKPT&language=CHS
- [8] Liu, X.Q., Yang, M.S., Peng, C., Xie, Q.H., Liu, Q.W. & Wu, F. (2021). *Anxiety and depression of middle school students in different roles in school bullying*. *Chinese Journal of Mental Health* (06), 475-481.
- [9] Lian, Q.G., Yu, C.Y., Mao, Y.Y. ,Wang, S.M. ,Zuo, X.Y., Tu, X.W. ... &Zhou, W.J. (2021). *Association between exposure to school bullying and adverse mental health outcomes*. *Jiangsu Preventive Medicine* (04), 386-389+392.
- [10] Crick, N. R., & Bigbee, M. A. (1998). *Relational and overt forms of peer victimization: A multi-informant approach*. *Journal of Consulting and Clinical Psychology*, 66, 337-347.

- [11] Zhang, Y.X.Z., Ma, C. & Song, A.F. (2023). *Psychological considerations on the treatment of bullying in primary and secondary schools in New Zealand. Psychological Month* (09), 203-206.
- [12] Xie, J.S., Wei, Y.M. & George Bear.(2018). *Delaware Bullying Victimization Scale (Student Scale) Chinese version revised and preliminary application. Chinese Journal of Clinical Psychology* (02),259-263.
- [13] Bai, M.L., Han, M., Dong, M.G., Wang, C.G., Liu, X.L. & Zhang, S.N.(2023). *Investigation of anxiety and depression among clinical medical undergraduates in a university of Hebei Province and analysis of its influencing factors. Journal of Hebei North University (Natural Science Edition)* (12),19-22+25.