

The Aerobics Strategies of Schools in Preventing School Bullying of Minors

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Abstract: School bullying is an offensive behavior that occurs on and off campus. One of the minors uses various violent means to take unreasonable offensive behaviors against the other. Therefore, the state and schools are very concerned about such incidents. However, the country's laws and measures related to under-age school bullying are not sound enough. With the enrichment of school sports classroom content, aerobics has become a good choice for developing students' physical fitness. Therefore, this article aims to study how aerobics can effectively prevent under-age school bullying. This research studies the problem of campus bullying from two aspects: psychology and pedagogy. This article uses questionnaire surveys, interviews, data statistics and analysis to conduct surveys and researches, and interviews and exchanges with 300 primary and middle school students in a certain city. The content is about a series of how to treat underage bullying issues and how to adopt them. Ways can effectively solve the problem of campus bullying. Experimental results show that aerobics exercise strategy plays a key role in preventing school bullying by minors.

1. Introduction

1.1. Background

In recent years, campus bullying has become the focus of social attention through online media reports, and campus bullying by minors has become a hot topic. This article focuses on the bullying phenomenon that occurs among underage students on the campus of elementary and middle schools. This article uses a lot of research and statistical data to explore and study how to effectively prevent underage school bullying through aerobics, a fashionable and high-end sport, and create a better future for the flowers of the motherland.

1.2. Significance

School bullying has caused varying degrees of trauma to the minds of minors and has gradually

become a hot issue of social concern. How to prevent the occurrence of school bullying cases and reduce the impact of school bullying cases on young students, whether for schools, teachers, families, and individual students All of them are crucial.

1.3. Related Work

In recent years, school bullying has become widespread in various countries and regions. How to prevent school bullying has become a common concern. Therefore, from the perspective of psychology and pedagogy, Ma X made some suggestions for school curricula by analyzing bullying behavior in campus [1], but not all of his research projects are effective in preventing minors from being bullied by school. Important role, but for the sport of aerobics, it plays an important role in preventing underage school bullying. Kathleen, S, Torres. believes that a review of only a small amount of empirical and theoretical research is sufficient to show the concern and areas of concern between family and family environment and juvenile delinquency [2]. However, young people spend most of their time in school, and education in all schools is very important for young people. Tianingrum N A, Sunarti S Research shows that the influence of peers and the environment can promote juvenile delinquency. At the same time, peers and the environment will also affect juvenile delinquency (p value <0.0001). The results indicate the existence of school-based healthy youth programs as a way to provide better information and healthy communities in schools [3]. However, in addition to the school environment, children's extracurricular sports activities, such as aerobics and other elegant and noble sports, can also reduce the crime rate of young people.

1.4. Innovation

Sports can relieve mental stress and prevent various diseases. This is a fact that scientific research has confirmed. Aerobics is a sport. It is famous for its beautiful movements, coordination, comprehensive physical exercise and strong rhythmic music accompaniment. This is a good way to relieve mental stress. Ideological education and physical education complement each other. Through the trinity of society, school, and family, education is provided for minors. In addition to preventing bullying in schools, aerobics exercises are also introduced to protect minors' physical and mental health and cultivate a spirit of unity and cooperation among minors. This article analyzes the impact of aerobics on the development of mental health and the status quo of bullying behavior in schools. The minors who have done aerobics are compared with the minors who have not done aerobics, and the corresponding scientific strategies are analyzed and formulated to better spread the minor aerobics.

2. Research Methods of Aerobics Strategies in Preventing School Bullying by Minors

2.1. Questionnaire Survey

(1) compilation of questionnaire

According to the purpose and needs of this article, carry out targeted questionnaire design and questioning. Make two questionnaires for elementary school students and junior high school students. Investigate the basic conditions and physical and mental health of primary and middle school students who have studied aerobics

(2) reliability and validity test of the questionnaire

In order to check the authenticity of the questionnaire, I invited 8 experts in research on aerobics

sports. The questionnaire was evaluated in three aspects: the content of the questionnaire, the structure of the questionnaire and the design of the questionnaire. Carry out important tests, and if the reliability is high, it shows that the material is very real and effective. The reliability coefficient $\mu = 0.84$ of the significance test indicates that the survey has good reliability. The results are listed in Table 1.

Table 1. The statistical table of the test results of the questionnaire validity evaluation (K=8)

	Item validity test value			
	Very reasonable	reasonable	general	unreasonable
Structure of the questionnaire	2	5	1	0
The content of the questionnaire	2	3	2	0
The overall structure of the questionnaire	3	3	2	0

(3) issuance and collection of questionnaires

The questionnaires were issued and collected to the primary and junior high school students who have studied aerobics and sports to be investigated. 155 questionnaires for elementary school students and 145 questionnaires for junior high school students were distributed, totaling 300. Actually, 155 questionnaires for elementary school students and 145 questionnaires for junior high school students were collected. The recovery rate is 100%, and the valid questionnaire is 100%.

The investigation found that 105 of the 300 students in the sample believed that the school “has not taken any preventive measures against campus bullying”, and 195 students thought that the school “taken preventive measures”. Among them, 63.88% of the students believed that the school had “taken precautions”. “Prevention of school bullying theme classes”, 37.04% believe that schools have “failed to popularize relevant laws in time.” Compared with school bullying prevention measures taken by schools, 82.22% of students believe that the school “takes preventive measures against school bullying”, which mainly include “severe punishments for students who bully others (94.17%),” and promptly communicate with the parents of students. Communicate and discuss solutions” (68.41%), “provide psychological counseling to students who are bullied” (45.58%).

2.2. Interview Method

The research object of campus bullying is primary and middle school students, but as leaders of school teaching activities, teachers are not only the executors of daily teaching and management, but also an important force to prevent students from campus bullying. With the rapid development of society, in order to have a deeper understanding of the actual situation of bullying in a certain city's middle school and to explore the in-depth exploration of bullying in schools, I also conducted in-depth interviews with teachers and parents in this article. 8 teachers, 6 aerobics teachers, 4 school leaders (2 principals and 2 directors) and 15 parents, in order to summarize and analyze the factors affecting school physical education interventions on school bullying.

2.3. Observation method

By observing the students from the selected schools, I understand the daily state of the students in the class, as a bystander, participate in teaching activities such as aerobics, and conduct field investigations of the students' behavior. The students selected for observation mainly focus on the

students who are prone to problem behaviors such as non-compliance with the rules in the aerobics teaching activities, as well as the students with weak emotional control, solitude, and incompatibility.

2.4. Mathematical Statistics

I used SPSS25.0 to conduct difference analysis and factor analysis in the research data, revealing the occurrence and cognitive status of school bullying, the cognitive status of aerobics prevention, and the factors that affect the prevention of bullying behaviors of junior high school students by aerobics.

1) coefficient of variation

The coefficient of variation, also known as the "standard deviation rate", is another type of statistical data used to measure the degree of difference between each observation in the data. When comparing the degree of change of two or more data, if the measurement unit is the same as the average, you can directly use the standard deviation for comparison. If the unit and (or) mean are different, the standard deviation cannot be used to compare the degree of variance, but the ratio of the standard deviation to the mean (relative value) should be used for comparison [6-7].

$$C.V = \frac{S}{x} \times 100\% \quad (1)$$

2) skewness

Skewness is a measure of the direction and degree of skewness of statistical data distribution, and is a digital feature of the degree of asymmetry of statistical data distribution[8].

$$S_k = \frac{\mu_3}{\mu_2^{\frac{3}{2}}} = \frac{\mu_3}{\sigma^3} \quad (2)$$

S_k -----Skewness;

μ_3 -----3rd order central moment;

σ -----Standard deviation S_k

Under normal circumstances, when the statistical data is a right-skewed distribution, $S_k > 0$, and the larger the S_k value, the higher the degree of right-skewing; when the statistical data is a left-skewed distribution, $S_k < 0$, and the smaller the S_k value, the left The higher the degree of deviation [9]. When the statistical data is symmetrically distributed, it is obvious that $S_k = 0$.

3) weighted average harmonic index

The weighted average harmonic index can also be divided into two types according to the different forms of weight: the harmonic average index used to report the number of surveys and the harmonic average index with a fixed weight [10].

Report the harmonic mean index of the number of options

$$I_q = \frac{\sum q_1 p_1}{\sum \frac{q_0}{q_1} q_1 p_1} = \frac{\sum q_1 p_1}{\sum \frac{1}{K_q} q_1 p_1} \quad (3)$$

$$I_p = \frac{\sum q_1 p_1}{\sum \frac{p_0}{p_1} q_1 p_1} = \frac{\sum q_1 p_1}{\sum \frac{1}{K_p} q_1 p_1} \quad (4)$$

Harmonic mean index with fixed weights. This kind of weighted harmonic mean index is rarely used in actual work.

$$I_p = \frac{\sum W}{\sum \frac{1}{K_p} W} \quad (5)$$

$$I_q = \frac{\sum W}{\sum \frac{1}{K_q} W} \quad (6)$$

3. Conduct a Questionnaire Survey on Campus Bullying among Minor Students in Some Areas

3.1. Factors Affecting Aerobics

In order to avoid differences in local customs, education levels, curriculum settings, and students' own qualities, we selected 6 high schools with similar education levels and educational facilities in the same area, and explored the underage students of these 6 schools. Through sampling methods, an anonymous questionnaire survey was conducted on underage students. 50 questionnaires were distributed to underage students in each school, and a total of 300 copies were collected. The questionnaire surveyed students' mental, physical, and physical conditions, and whether they had witnessed campus bullying or experienced campus bullying on campus. Through research and statistics, it can be seen from Table 3.1 that the weight analysis of factors that affect the prevention of aerobics in the bullying behavior of minors can be seen. Knowing that the three common factors, school factors, personal factors, and family factors have a variance contribution rate of 23.147%, 26.478%, 18.471%, and the cumulative contribution rate of the three factors is 72.597%. According to the normalization formula in mathematical statistics: (where n is the number of extracted factors, b_j is the contribution rate of the j -th factor).

$$D_j = \frac{b_j}{\sum_{z=1}^n a_z} \quad (7)$$

It is concluded that the variance contribution rates of school factors, personal factors, and family factors are 0.367, 0.342, and 0.380, respectively.

In the same way, according to the linear regression equation of the relationship between the common factor and the hidden factor reflected in the component score coefficient matrix, the weight value of the latent factor in the common factor can be obtained as shown in Table 2:

Table 2. Analysis of factors affecting the prevention of school bullying by aerobics

Common factor weight value D_j	Latent factor	Factor score coefficient b_j	The weight value of the latent factor on the common factor
School factor 0.367	Q3:Aerobics	0.496	0.362
	Q10:Aerobics teacher	0.365	0.248
	Q8:Extracurricular aerobics activities	0.354	0.176
	Q5:Extracurricular aerobics competition	0.276	0.152
	Q6:Class atmosphere	0.024	0.048
Personal factor 0.342	Q7:Values	0.522	0.479
	Q4:Personality traits	0.301	0.248
	Q9:Cognitive ability	0.329	0.281
Family factor 0.380	Q1:Family education	0.574	0.575
	Q2:Parent-child relationship	0.475	0.468

The order of the weight values of the three common factors that affect the prevention of school bullying in aerobics is: the school factor is the largest, followed by the personal factor, and the family factor is the smallest. The order of the weight value of each potential factor in the public factors is: school factor. The highest ratio and the most important factor are: aerobics, followed by bodybuilding teachers, extracurricular bodybuilding activities, extracurricular bodybuilding competitions and classroom atmosphere. Among the personal factors, the most important and influential factors are: values, followed by cognitive ability and personality traits. Among the family factors, the most important and most important factor is: the way of family education, followed by the parent-child relationship.

3.2. Research Ideas and Block Diagram

This research takes "propose questions-investigate problems-analyze problems and solve problems" as the basic research idea. First, in order to provide the necessary theoretical support for the main part of the later period, I reviewed the research, including the investigation of the problem, the purpose and importance of the research, the research method, the elaboration of the object, the bibliographic review and the related definition of the concept and theory. Wait. Secondly, through a combination of questionnaires, interviews and observations, with primary and secondary school students in a specific city as the research object, 300 primary and secondary school students were randomly selected for stratified sampling, and the content of the questionnaire was designed according to the needs of the research. And interview. On the basis of this overview, the research results are analyzed and elaborated in detail, not only investigating the real situation of school bullying in specific cities, but also analyzing the factors of school aerobics to prevent school bullying. Finally, in order to solve the problem of underage school bullying, under the guidance of school rules and regulations, education and other theories, through the establishment of school aerobics exercises, students' awareness of rules, effective control of emotions, improvement of the ability of unity and cooperation, and personality and ethics are cultivated through the establishment

of school aerobics. To reduce or prevent the occurrence of school bullying incidents. The overall block diagram is shown in Figure 1:

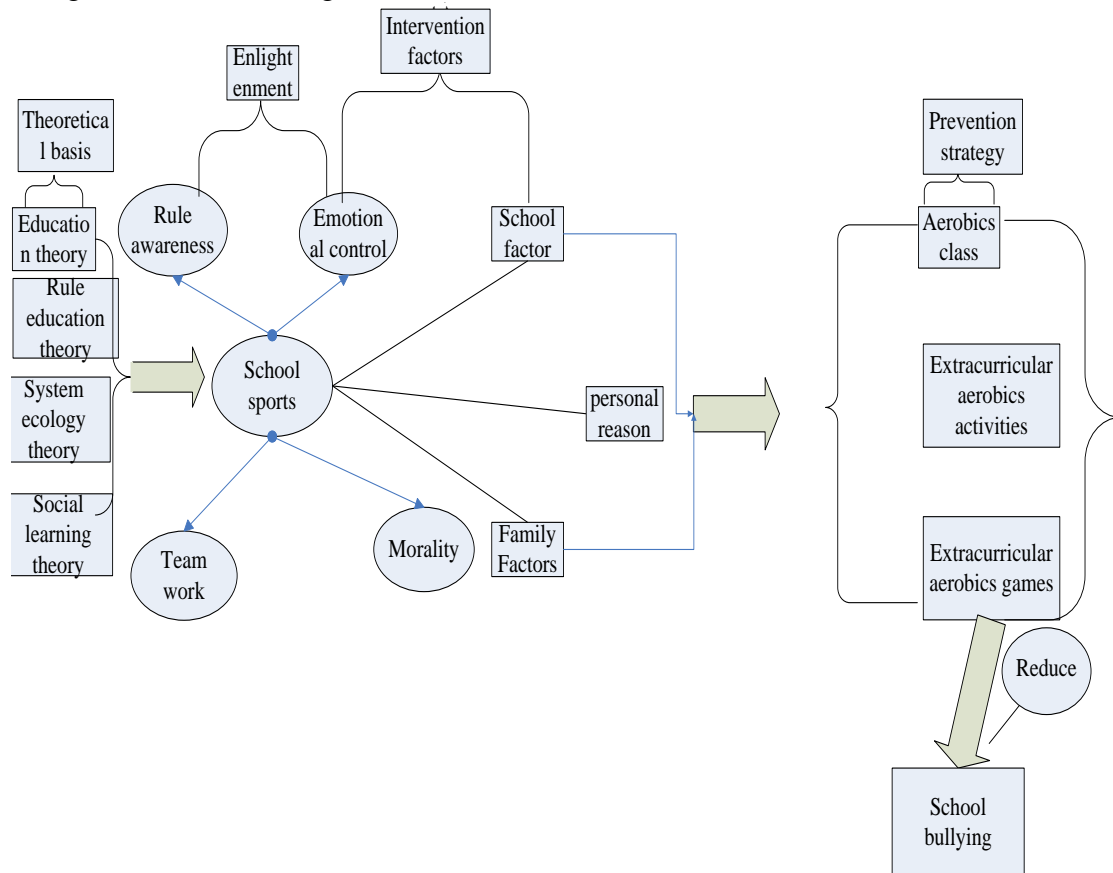


Figure 1. A model diagram of aerobics to prevent underage bullying in school

4. Benefits of Aerobics to Campus Bullying

4.1. Survey Results on the Status Quo of Campus Bullying among Minors

Through the questionnaire survey on the bullying behavior data of middle school students on campus, it can be seen from Figure 2 that the age of the bullied students has a new trend. The proportion of students who are bullied in elementary schools cannot be ignored. This clearly reflects the trend of younger school bullying. Among them, the proportion of students who are bullied in junior high schools is still the highest. In addition, school bullying has a significant impact on schools. Regardless of elementary or junior high school, more than half of primary and secondary school students have seen or experienced bullying, which has more or less physical and psychological effects on different students. It can be seen from Figure 3 that bullying on campus is usually not concentrated in the school, but near the school gate or outside the school. In the interview, many teachers and students said that students now often go to adult entertainment venues, such as KTV, Internet cafes, and bars in their spare time. These places are entertainment places for young people in the community, mixed with fish and dragons, and have an atmosphere of corruption. They have a significant negative impact on students' consumption, values and life prospects, and also increase the concealment of campus bullying. It is also difficult for students who

have been bullied to get timely help. Figure 4 shows the relationship between bullying and bullying. Among them, the proportion of bullying among classmates or classmates in the same school is relatively small, but the bullying behaviors of young people outside school or society are more common. It can be seen that the campus bullying phenomenon is much more serious than before [12].

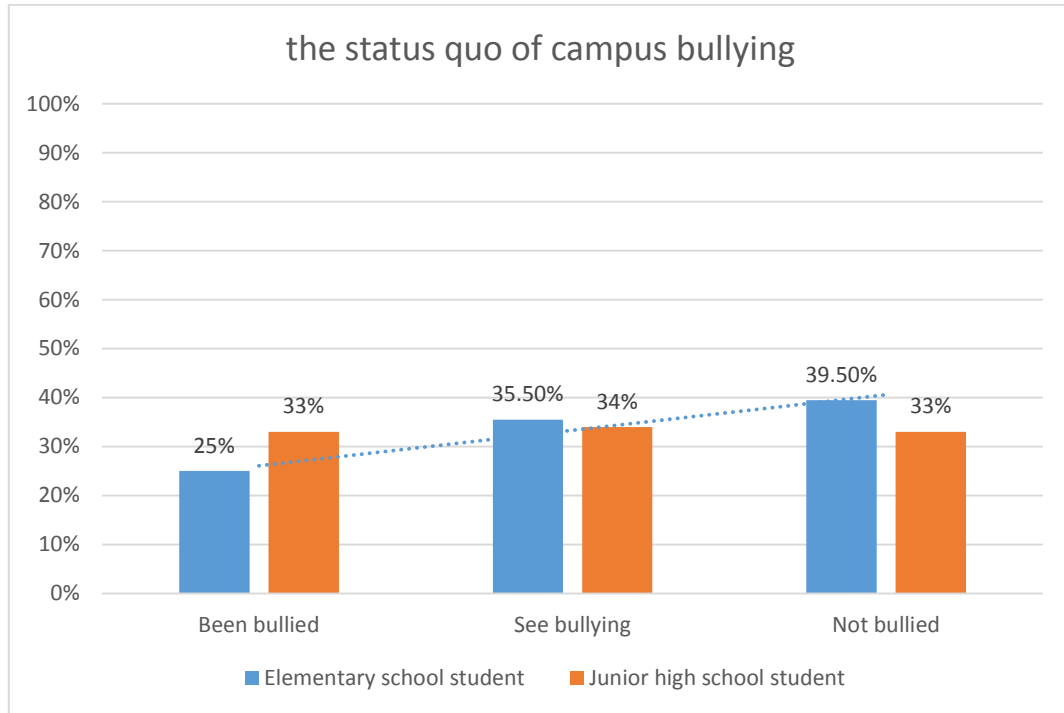


Figure 2. The Status quo of campus bullying

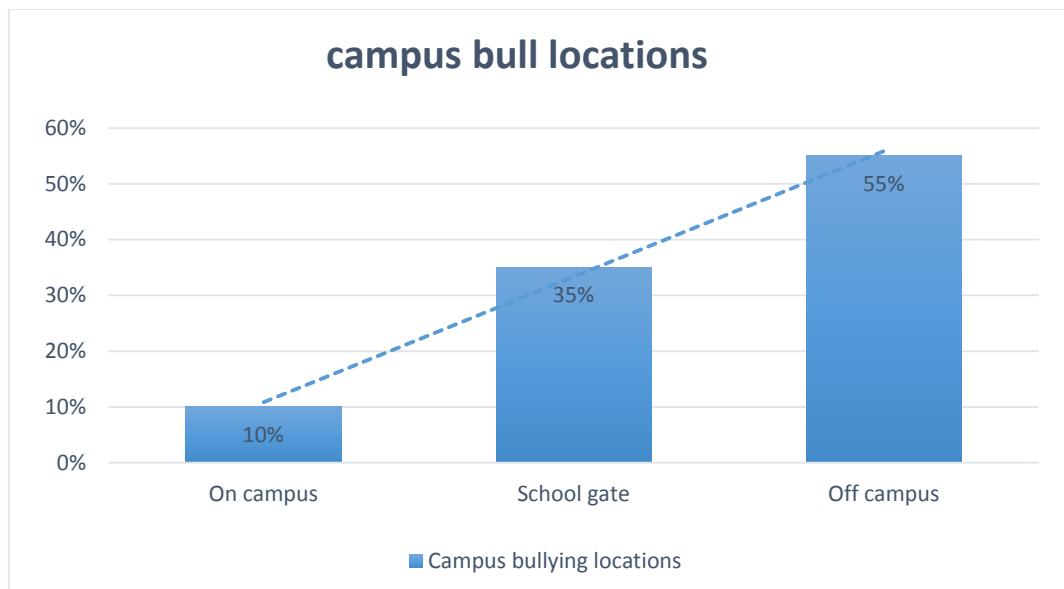


Figure 3. Location of campus bullying

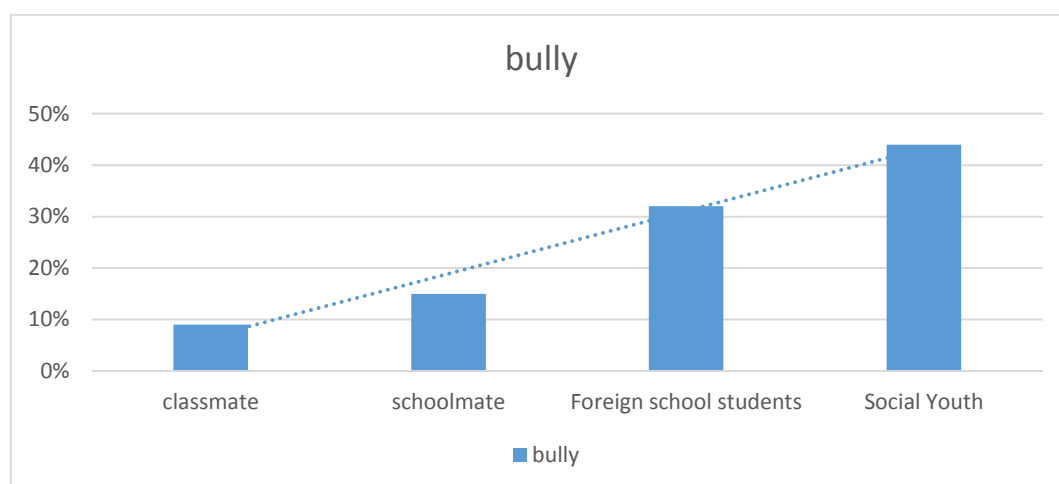


Figure 4. Categories of bullies

4. Importance of Aerobics Teachers to Prevent Underage Bullying

Studies have shown that very aggressive children are very sensitive to attack signals from external stimuli and are hostile to such attack signals. They do not properly evaluate their behavioral responses, which also explains bullying in schools. Behavior and psychological characteristics are closely related [13]. Students' low awareness of the rules is one of the important factors leading to bullying in schools. Primary and middle school students are at a turning point from heteronomy to self-discipline. The defects of their own abilities force students to fall into the whirlpool of "what should be done", "what should not be done" and "how to do", and the student has thus become a self-contradictory body [14]. Therefore, in order to help students get rid of the shackles of the whirlpool, reduce the occurrence of school bullying and other problem behaviors, and become "free people", students must be guided by "disciplined" speech and behavior. Daily teaching is carried out in the aerobics room to achieve the students' mastery of the rules and systems [15]. In the aerobics class, aerobics teacher as the leader and student teacher of classroom teaching, I think the following points should be pointed out:

Because physical education and health classes are different from other subjects and have strong practical characteristics, aerobics teachers need to formulate strict classroom rules and regulations to ensure the normal progress of teaching and the realization of teaching goals. The following principles should be observed when formulating the rules and regulations of the physical education and health class: (1) The principles of fairness and justice. Since the formulation of the rules is for all students, in order to ensure the smooth implementation of the rules, they need to be impartial. (2) The principle that varies from person to person, the occurrence of campus bullying is closely related to the individual's own genetic genes and biochemical substances, and it has a certain degree of offensive behavior. The formulation, compliance and later evaluation of students' norms should all follow the "one system, two uses"; (3) The principle of democracy, students generally agree with their own rules and regulations [16-17].

5. Conclusion

The innovative point of this research is that after studying domestic and foreign research results, it provides theoretical enlightenment in psychology and pedagogy for the prevention of campus

bullying, provides detailed guidance on how to deal with campus bullying for school administrators, and contributes to the establishment of the prevention of campus bullying. The campus management system provides theoretical guidance as well as guidance on specific operating methods for teachers to ensure their own safety [18-19]. The disadvantage is that it is restricted by the time and execution ability and cannot completely eliminate the occurrence of school bullying [20-21]. Finally, the phenomenon of campus bullying still exists. It has adverse effects on students' physical and mental health and social harmony and stability. Campus bullying is still a problem worthy of in-depth study.

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Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Conflict of Interest

The author states that this article has no conflict of interest.

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